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## Dr. K. VICTOR BABU

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### Editorial.....

It is heartening to note that our journal is able to sustain the enthusiasm and covering various facets of knowledge. It is our hope that IJMER would continue to live up to its fullest expectations savoring the thoughts of the intellectuals associated with its functioning .Our progress is steady and we are in a position now to receive evaluate and publish as many articles as we can. The response from the academicians and scholars is excellent and we are proud to acknowledge this stimulating aspect.

The writers with their rich research experience in the academic fields are contributing excellently and making IJMER march to progress as envisaged. The interdisciplinary topics bring in a spirit of immense participation enabling us to understand the relations in the growing competitive world. Our endeavour will be to keep IJMER as a perfect tool in making all its participants to work to unity with their thoughts and action.

The Editor thanks one and all for their input towards the growth of the **Knowledge Based Society**. All of us together are making continues efforts to make our predictions true in making IJMER, a Journal of Repute

**Dr.K.Victor Babu**  
**Editor-in-Chief**

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## ANTICANCER ACTIVITY OF SEAWEED *ULVA LACTUCA* L. AGAINST HUMAN BREAST MCF -7 CELLS

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### Abstract

Plants are considered as one of the main source of biologically active materials. Recent estimates reported that not less than 200 - 250 plant species are used for the treatment of different ailments in the traditional medicine. Cancer is a most fatal human disease, increasing with changing life style, nutrition, and global warming. Cancer treatments do not have potent medicine as the currently available drugs are causing side effects in some instances. Since cancer is a multigenic disease causing about one fifth of the deaths in each year worldwide. So, it is important to find out natural ways of medication. Most of the algal extracts induce cancer cell death by inducing apoptosis or pre-apoptosis. In the present study the anticancerous activity of marine algae *Ulva lactuca* L. were analyzed. The test for anti-cancerous activity of the selected sample was performed by using MTT Assay Technique. The cell lines selected for cytotoxicity was Human Breast Carcinoma Cells.

**Keywords:** *Ulva lactuca*, Cytotoxic activity, Cell lines, MTT Assay Technique.

### INTRODUCTION

Natural products and their derivatives represent more than 50% of all the drugs in clinical use of the world. Almost 60% of drugs approved for cancer treatment are of natural origin. In recent times due to historical, cultural and other reasons folk medicine has taken an important place especially in developing countries, where limited health services are available. Plant materials might be bioactive secondary metabolites that have the potential to treat different afflictions. The compounds include phenols, phenolic glycosides, unsaturated lactones, sulphur compounds, saponins, cyanogenic glycosides and glucosinolates. Such plant derived natural products are the main focus of many scientists to develop new medication for different diseases like cardiac arrest, diabetes, leprosy, AIDS, cancer etc. There is a positive correlation between the increased dietary intake of natural antioxidants and the reduced coronary heart diseases, cancer mortality, as well as longer life expectancy. Thus herbal drug formulations are used for the prevention and treatment of cancer appeared in the last three decades and the interest on natural sources of potential chemotherapeutic agent is continuing.

Cancer is the second cause of death in the modern world that affects one out of three individuals and resulting in one out of five deaths worldwide. Nowadays, advanced drugs are being used in antitumoral therapies. The conventional chemotherapy causes severe side effects. So, the goal of current pharmacologists is to search for new drugs to combat cancer without side effects. Many bioactive and pharmacologically active substances isolated from sponges, bryozoans, ascidians and algae, exhibit cytotoxic and antitumor activity. Marine algae are considered as a biomedically



important organism in the marine environment. Marine plants use these elements in biosynthetic processes to produce compounds like halogen containing terpenoids, alkaloids, acetylenes, phenol and sulfated polysaccharides which are unique to the marine environment. Some of these compounds play a vital ecological role as herbivore deterrent and antifouling substances. Besides the ecological role, they also show good antibacterial, antifungal, antiviral, cytotoxic and pharmacological activities. In vitro cytotoxicity test against cancer cell culture have been used in most cases, to evaluate the anti-cancer potential of crude extracts from different marine organisms. In the present study the anticancerous activity of the selected sample were tested against the cell line Human Breast Carcinoma Cells, for their effective cytotoxic activity.

## MATERIALS AND METHODS

### Collection of the sample

The selected sample were collected from Pulicut lake in Chennai, Tamil Nadu, India.

### Preparation of algal extract

The collected species was shade dried for 15 days and then pulverized into fine powder using Willey mill grinder. The extraction was done by using Soxhlet apparatus. Different solvents were used with gradient polarity (Chloroform and methanol). The extracts were evaporated to complete dryness by vacuum distillation and stored in refrigerator for further use.

### Botanical Description

*Ulva lactuca* L. (Plate – 1)

#### Taxonomic Position

Division : Chlorophyta

Class : Chlorophyceae

Order : Ulotrichales

Family : Ulvaceae

Genus : *Ulva*

Species : *U. lactuca* , L.

*Ulva lactuca*, an edible green algae known by the common name sea lettuce. The distribution is worldwide in Europe, North America, Central America, Caribbean Islands, South America, Africa, Indian Ocean Islands, South-west Asia, China, Pacific Islands, Australia and New Zealand. *Ulva lactuca* is very common on rocks and on other algae in the littoral and sub littoral shores all around the British Isles, the coast of France, the Low Countries and up to Denmark. It is particularly prolific in areas where nutrients are abundant. It is a thin flat green alga growing from a discoid holdfast. The margin is somewhat ruffled and often torn. It may reach 18 centimetres (7.1 inch) or more in length, though generally much less and up to 30 centimetres (12 inch) across. The membrane is two cells thick, soft and translucent and grows attached to rocks or other algae by a small disc-shaped holdfast, without a stipe. Green to dark green in colour, this species belongs to Chlorophyta and is formed of two layers of cells irregularly arranged, as seen in cross-section. The chloroplast is cup-shaped in some and

---

as a parietal plate in others with one to three pyrenoids. *Ulva lactuca* can be added in soups, meats, fish and salads. It has high protein, variety of vitamins, minerals and is considered as a soluble dietary fiber.

**PLATE - 1 *Ulva lactuca***



**CELL LINE**

The human cervical breast adenocarcinoma cell line (MCF7) was obtained from National Centre for Cell Science (NCCS), Pune and grown in Eagles Minimum Essential Medium containing 10% fetal bovine serum (FBS). The cells were maintained at 37°C, 5% CO<sub>2</sub>, 95% air and 100% relative humidity. Maintenance cultures were passaged weekly, and the culture medium was changed twice a week.

**CELL TREATMENT PROCEDURE (Monks *et al.*, 1991)**

The monolayer cells were detached with trypsin-ethylene diamine tetraacetic acid (EDTA) to make single cell suspensions and viable cells were counted using a hemocytometer and diluted with medium containing 5% FBS to give final density of 1x10<sup>5</sup> cells/ml. One hundred microlitres per well of cell suspension were seeded into 96-well plates at plating density of 10,000 cells/well and incubated to allow for cell attachment at 37°C, 5% CO<sub>2</sub>, 95% air and 100% relative humidity. After 24 h the cells were treated with serial concentrations of the test samples. They were initially dissolved or dispersed in dimethylsulfoxide and an aliquot of the sample solution was diluted to twice the desired final maximum test concentration with serum free medium. Additional four serial dilutions were made to provide a total of five sample concentrations. Aliquots of 100 µl of these different sample dilutions were added to the appropriate wells already containing 100 µl of medium, resulting in the required final sample concentrations. Following sample addition, the plates were incubated for an additional 48 h at 37°C, 5% CO<sub>2</sub>, 95% air and 100% relative humidity. The medium containing



without samples were served as control and triplicate was maintained for all concentrations.

#### MTT ASSAY (Mosmann, T., 1983)

3-[4,5-dimethylthiazol-2-yl]2,5-diphenyltetrazolium bromide (MTT) is a yellow water soluble tetrazolium salt. A mitochondrial enzyme in living cells, succinate-dehydrogenase, cleaves the tetrazolium ring, converting the MTT to an insoluble purple formazan. Therefore, the amount of formazan produced is directly proportional to the number of viable cells. After 48 h of incubation, 15µl of MTT (5mg/ml) in phosphate buffered saline (PBS) was added to each well and incubated at 37<sup>0</sup>C for 4h. The medium with MTT was then flicked off and the formed formazan crystals were solubilized in 100µl of DMSO and then measured the absorbance at 570 nm using micro plate reader.

- The percentage cell growth was then calculated with respect to control as follows  
% Cell Growth = [A] Test / [A]control x 100
- The % Cell inhibition was determined using the following formula.  
% Cell Inhibition = 100- Abs (sample)/Abs (control) x100.

Nonlinear regression graph was plotted between % Cell inhibition and Log concentration and IC50 was determined using GraphPad Prism software.

#### THE MECHANISM ON CANCER THERAPY

1. Inhibiting cancer cell proliferation directly by stimulating macrophag phagocytosis, enhancing natural killer cell activity.
2. Promoting apoptosis of cancer cells by increasing production of interferon, interleukin-2 immunoglobulin and complement in blood serum.
3. Enforcing the necrosis of tumor and inhibiting its translocation and spread by blocking the  
Blood source of tumor tissue.
4. Enhancing the number of leukocytes and platelets by stimulating the hemopoietic function.
5. Promoting the reverse transformation from tumor cells into normal cells.

#### RESULTS AND DISCUSSION

The cytotoxic effects of algal extracts of the selected samples on human cervical breast-adenocarcinoma cell line (MCF7) were tested by using MTT assay (Cell viability). This assay was used for the evaluation of anticancerous activity. The medium containing without samples were served as control and triplicate was maintained for all concentrations. Among the selected sample *Ulva lactuca* determines the percentage of cell inhibition.

The *Ulva lactuca* extract was treated under five different concentrations against (MCF 7) cancer cell lines, the present findings exhibited 76.27% of cell inhibition in 200 µg/ml, 31.7 % cell inhibition at 100 µg/ml, 9.52 % cell inhibition at 50 µg/ml, 6.03 % of cell inhibition at 25 µg/ml and 3.82 % of cell inhibition at 12.5 µg/ml thus the percentage of cell inhibition was high based on dose dependant and in 200µg/ml



showed maximum inhibition when compared with other concentrations and the results were tabulated in (Table – 1 & 2, Chart – 1 & Plate -2).

The anticancer properties of algae are now well recognized that apoptosis is a mode of cell death used by multicellular organisms to eradicate cells in diverse physiological and pathological settings. Among the positive and negative regulators of apoptosis, the tumor suppressor gene is an important defense against cancer, as it suppresses tumor growth through two mechanisms, cell cycle arrest and apoptosis (Das *et al.*,1999). The aim of the present study is to evaluate anticancerous activity in the selected algal sample. Seaweeds contain powerful antioxidant and anticancer properties to arrest the proliferation of cancer cells (Marijana *et al.*,2015 and Faulkner, 1984). Breast cancer is the leading cause of death among women in many countries. Scientists have aimed to treat breast cancer without harming the patient by exploiting the differences between cancerous and normal cells. Nutritional strategies have been applied to study populations with a low incidence of breast cancer. Liu *et al.*, (2012) reported that in Asia seaweeds have been eaten for atleast 5000 years. In cells treated with seaweed apoptosis was observed and the authors speculated that seaweed could be a breast cancer preventing food.

## CONCLUSION

Cancer is a dreadful human disease increasing with changing of lifestyle, nutrition and global warming. Cancer treatments do not have potent medicine as the currently available drugs are causing side effects in some instances. In this, natural products have gained significance in the treatment of cancer. Natural products and their derivatives represent more than aqueous of all the drugs in clinical use of the world. For many generations marine algae have been extensively used as food, organic fertilizers and traditional medicine. The high protein, lipid and vitamin content of marine algae have encouraged their cultivation and use as a food source in many parts of the world.

Over the past decades algae and their extracts have generated an enormous amount of interest in the pharmaceutical industry, as a fresh source of bioactive compounds.

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-



**TABLE - 1 Anticancerous activity of *Ulva lactuca* by MTT assay**

Conc	Cont	12.5 µg	25 µg	50 µg	100 µg	200 µg
ABS	0.389	0.362	0.375	0.364	0.272	0.082
	0.394	0.381	0.367	0.345	0.267	0.088
	0.393	0.388	0.363	0.355	0.264	0.109
<b>Avg</b>	<b>0.392</b>	<b>0.377</b>	<b>0.368333</b>	<b>0.354667</b>	<b>0.267667</b>	<b>0.093</b>

Boyd., 1991. Feasibility of high flux anticancer drug screen using a diverse panel of cultured human tumour cell lines. *Journal of the National Cancer Institute*, 83, 757-766.  
Mosmann,T., 1983. Rapid colorimetric assay for cellular growth and survival: application to proliferation and cytotoxicity assays. *Journal of Immunological Methods*, 65, 55-63.

**TABLE – 2 Cell inhibition ( in % age)**

Conc (µg/ml)	% Cell Inhibition
12.5	3.826531
25	6.037415
50	9.52381
100	31.71769
200	76.27551

Chart - 1 Anticancerous activity of *Ulva lactuca* by MTT assay

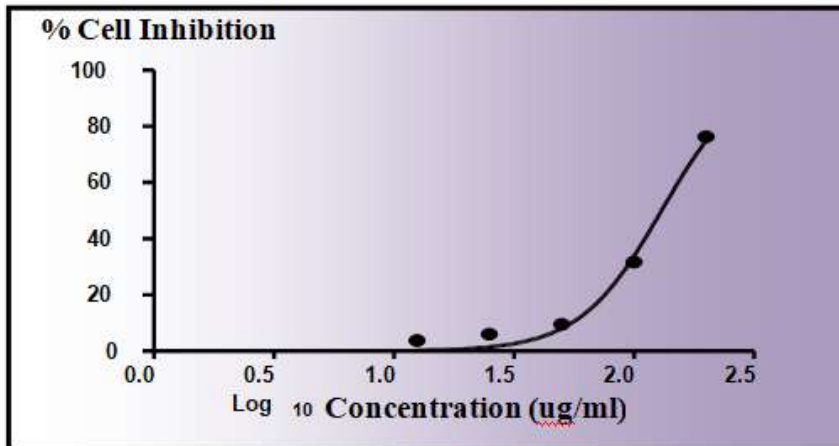


PLATE - 2 Anticancerous activity of *Ulva lactuca* by MTT cell assay



12.5 µg of on MCF 7 cell lines



25 µg of on MCF 7 cell lines



50 µg of on MCF 7 cell lines



100 µg of on MCF 7 cell lines



200 µg of on MCF 7 cell lines



## CAPITAL STRUCTURE ANALYSIS OF SELECTED INDIAN COMPANIES

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### Abstract

Capital structure is an essential part of financial management. It is necessary for any business to arrange their finance in proper manner. With the proper utilization of finance a business can get maximum benefits from market. The purpose of the study is to analyze the capital structure of three selected companies i.e. RIL, TCS and HUL. The present study mainly focused on the debt equity ratio of selected companies. The companies are selected on the basis of market capitalization. The present study considers debt as outsider's funds and equity as a shareholder's funds. The study reveals that RIL and HUL are having no significance difference between debt equity ratios and the TCS having opposite results from RIL and HUL.

**Key Words:** Capital Structure, Debt Equity Ratio.

### INTRODUCTION

It is very important for any business that the finance are procured and invested in such a manner so that business can get maximum benefit. Hence, the business invest their finance only one those things which gives higher returns than the cost of finance. In general, without sufficient finance no business can survive in the market, also no business activities performed properly when there is a scarcity of finance. Finance is a primary thing for any enterprise life. In today's era many enterprises are shutting down their business because of improper management of finance. Capital structure is the part of financial management. It is a mixture of capital from the various sources of finance. The capital structure of the company includes shareholder's funds i.e. equity shares, preference shares, and external debts. The research paper is focusing on this proportion of shareholder's funds and outsider's funds.

### STATEMENT OF THE PROBLEM

The proper mixture of debt and equity is leads to great growth. Usually, investors are analyzing debt equity ratio to know about the borrowing practices of companies. It is fruitful for any investor to invest their money in that company which having a sound capital structure. In the view point of the company, a sound capital structure increases the market price of shares. It is crucial for any company, to having a proper mixture of debt and equity to get maximum benefits. Therefore, the research paper analyzing the





capital structure of selected companies and examine the outsiders fund and shareholder's funds.

## REVIEW OF LITERATURE

**Anitha & Harini (2018)** have studied capital structure of TATA Steel Company. They have used various ratio to analysed the data. They have analysed five years data and concluded that the TATA Steel Company used both debt & equity for financing their funds. The debt equity praportion of the company are satisfactory. **Ajaz & Ankita (2018)** have analyzed relationship between debt and equity in Hindustan Unilever Limited and also examine the position of capital structure. They have used t-test for analyzing the data. The research paper concluded that there is a significant difference between debt fund and equity funds. **Navneetha, Aadhi Shivani, VS, Abinayaa, & Akshaya (2017)** have analyzed capital structure of TATA Motors limited. The paper focused on the debt equity ratio. To analyze the data, ratio analysis and leverage have been used. The study concluded that the position of capital structure of TATA Motors is satisfactory. **Rohit (2014)** has analyzed the factor affecting capital structure decisions and determinants of capital structure. The research paper examines some selected Indian industries data and to analyzed the data, the ratio analysis as well as some statistical tools are used i.e. average, ANOVA, correlation coefficient and multiple regression. The research paper concluded that some Indian industries are having a rigid capital structure where there is too difficult to offer any change and the paper also suggested that if the firm wants to achieve optimal capital structure than it must analyzed the factors affecting for that specific firm. **Padmini & Sivarami(2012)** have used ratio analysis, trend analysis, student t-test and coefficient to analyze the eight years data. The research paper focuses on the long-term solvency and impact of financial leverage on the earnings of shareholders. **Goel (2011)** has examined the capital structure of BHEL and L&T and also investigate the impact of financial leverage on shareholder's return. The research paper contributed towards the optimality theory and the related issue of capital structure with the help of Beta approach.

## OBJECTIVE OF THE STUDY

To analyzed capital structure of selected companies.  
To examine debt equity position of selected companies.

## HYPOTHESIS

Ho (1): There is no significant difference between outsider's funds and shareholder's fund of RIL.

Ho (2): There is no significant difference between outsider's funds and shareholder's fund of TCS.

Ho (3): There is no significant difference between outsider's funds and shareholder's fund of HUL.



## RESEARCH METHODOLOGY

To examine the capital structure of selected company, researcher collected data from company's official website, their annual reports and monycontrol.com. The researcher collected five years debt equity ratio of selected company. To analyze the data researcher use ratio analysis, correlation and t-test. The researcher selects three companies as a sample on the basis of market capitalization. The samples for the present study are Reliance Industries Limited (RIL), Tata Consultancy Services Limited (TCS) and Hindustan Unilever Limited (HUL).

## LIMITATIONS OF THE STUDY

The study is limited to five years financial data of selected samples.

The present study is based on published financial reports.

The secondary data are collected by researcher so, there is a limitations of secondary data are also affected to the study.

## RESULTS AND DISCUSSION

Debt equity ratio = Outsiders funds/ Shareholders funds.

**Table: 1 Debt equity ratio of Reliance Industries Limited (Rs. in crores).**

Year	Outsiders funds	Shareholders' funds	Ratio
2016	2,83,645.00	2,31,548.00	1.224994386
2017	3,41,178.00	2,63,705.00	1.293786618
2018	3,82,225.00	2,93,491.00	1.302339765
2019	4,52,880.00	3,87,112.00	1.169893984
2020	5,57,982.00	4,53,331.00	1.230848982

(Source: Annual reports of RIL)

In the above table debt and shareholders' equity are continuously increases during the study period. During the five years (2016-2020) the RIL having more outsiders fund than the shareholders equity fund.

**Table: 2 Debt equity ratio of Tata Consultancy Services Limited (Rs. in crores).**

Year	Outsiders Fund	Shareholders fund	Ratio
2016	9523	71,072.00	0.133990882
2017	11109	86,214.00	0.128853782
2018	14638	85,128.00	0.171952824
2019	17924	89,446.00	0.200389062
2020	28961	84,126.00	0.344257423

(Source: Annual reports of TCS)

The table of debt equity ratio of TCS reveals that company having more shareholders equity fund than the debt in their capital structure. The outsiders' funds of the company are continuous increases during the five years of analyses. The shareholders' equity is fluctuating trend from 2016 to 2020



**Table: 3 Debt equity ratio of Hindustan Unilever Limited (Rs. in crores).**

Year	Outsiders fund	Shareholders fund	Ratio
2016	1619	6,573.00	0.246310665
2017	1870	6,744.00	0.277283511
2018	1923	7,281.00	0.264112073
2019	1951	7,867.00	0.247997966
2020	2740	8,229.00	0.332968769

(Source: Annual reports of HUL)

The above table indicates the capital structure of HUL having a less outsiders fund as compare to the total shareholders’ fund. During the study period of five years shareholders fund and outsiders fund both are increases.

**CORRELATION**

**Table: 4 Coefficient of Correlation of Reliance Industries Limited**

Year	X	Y	dx= x-x	dy= y-y	dx <sup>2</sup>	dy <sup>2</sup>	dx dy
2016	28	23	-10	-6	100	36	60
2017	34	26	-4	-3	16	9	12
2018	38	29	0	0	0	0	0
2019	45	38	7	9	49	81	63
2020	55	45	17	16	289	256	272
	Σx=200	Σy=161	Σdx=10	Σdy=16	Σdx <sup>2</sup> =454	Σdy <sup>2</sup> =382	Σdx dy=407

Where, X is Outsider’s funds and Y is Shareholder’s funds

$$r = \frac{\sum dx dy}{\sqrt{\sum dx^2} * \sqrt{\sum dy^2}}$$

$$r = \frac{407}{\sqrt{454} * \sqrt{382}}$$

$$r = \frac{407}{\sqrt{173428}}$$

$$r = \frac{407}{416.45}$$

$$r = 0.98$$

**t-test**

$$t = \frac{r}{\sqrt{1-r^2}} * \sqrt{n-2}$$

$$t = \frac{0.98}{\sqrt{1-(0.98)^2}} * \sqrt{10-2}$$

$$t = \frac{0.98}{\sqrt{1-0.96}} * \sqrt{8}$$



$$t = \frac{0.98}{0.04} * 2.83$$

$$t = 69.34$$

**Table: 5 Coefficient of Correlation of Tata Consultancy Services Limited**

Year	X	Y	dx=x-x	dy=y-y	dx <sup>2</sup>	dy <sup>2</sup>	dxdy
2016	9	71	-5	-14	25	196	70
2017	11	86	-3	1	9	1	-3
2018	14	85	0	0	0	0	0
2019	17	89	3	4	9	16	12
2020	28	84	14	-1	196	1	-14
	Σx=79	Σy=415	Σdx=9	Σdy=-10	Σdx <sup>2</sup> =239	Σdy <sup>2</sup> =214	Σdxdy=65

Where, X is Outsider’s funds and Y is Shareholder’s funds

$$r = \frac{\sum dx dy}{\sqrt{\sum dx^2} * \sqrt{\sum dy^2}}$$

$$r = \frac{65}{\sqrt{239} * \sqrt{214}}$$

$$r = \frac{65}{\sqrt{51146}}$$

$$r = \frac{226.15}{65}$$

$$r = 0.29$$

**t-test**

$$t = \frac{r}{\sqrt{1-r^2}} * \sqrt{n-2}$$

$$t = \frac{0.29}{\sqrt{1-(0.29)^2}} * \sqrt{10-2}$$

$$t = \frac{0.29}{\sqrt{1-0.08}} * \sqrt{8}$$

$$t = \frac{0.29}{\sqrt{0.92}} * 2.83$$

$$t = \frac{0.29}{0.96} * 2.83$$

$$t = 0.85$$

**Table: 6 Coefficient of Correlation of Hindustan Unilever Limited**

Year	X	Y	dx=x-x	dy=y-y	dx <sup>2</sup>	dy <sup>2</sup>	dxdy
2016	16	65	-3	-7	9	49	21
2017	18	67	-1	-5	1	25	5
2018	19	72	0	0	0	0	0
2019	19	78	0	6	0	36	0
2020	27	82	8	10	64	100	80
	Σx=99	Σy=364	Σdx=4	Σdy=4	Σdx <sup>2</sup> =74	Σdy <sup>2</sup> =210	Σdxdy=106



Where, X is Outsider’s funds and Y is Shareholder’s funds

$$r = \frac{\sum dxdy}{\sqrt{\sum dx^2} * \sqrt{\sum dy^2}}$$

$$r = \frac{106}{\sqrt{74} * \sqrt{210}}$$

$$r = \frac{\sqrt{15540}}{106}$$

$$r = \frac{124.66}{106}$$

$$r = 0.85$$

**t-test**

$$t = \frac{r}{\sqrt{1-r^2}} * \sqrt{n-2}$$

$$t = \frac{0.85}{\sqrt{1-(0.85)^2}} * \sqrt{10-2}$$

$$t = \frac{0.85}{\sqrt{1-0.7225}} * \sqrt{8}$$

$$t = \frac{0.85}{\sqrt{0.2775}} * 2.83$$

$$t = \frac{0.85}{0.53} * 2.83$$

$$t = 4.54$$

### ANALYSIS AND INTERPRETATION.

#### Reliance Industries Limited

The above calculation shows that, calculated value of RIL is 69.34 and at the level of 5% significance the table value is 1.84. The calculated value is more than the table value. Hence, the null hypothesis is rejected. So, there is a significant difference between outsider’s funds and shareholder’s funds.

#### Tata Consultancy Services Limited

The t-test value or calculated value of is 0.85 and the table value is 1.84 (at 5% significance). It is exhibiting that calculated value is less than the table value. So, null hypothesis is accepted. Hence, there is no significant difference between outsider’s funds and shareholder’s funds.

#### Hindustan Unilever Limited

The calculated value of t is 4.54, which is more than the table value. Therefore, null hypothesis is rejected. The five years data of HUL reveals that there is a significance difference between outsider’s liabilities and shareholder’s funds.

### CONCLUSION

The five years data analysis of RIL and HUL exhibiting that there is no significance difference between the debts and equity ratio. The TCS data analysis reveals that null hypothesis accepted which means; there is no significant difference between debt and



equity. For the present study the debt as outsider's funds and equity as shareholder's funds, the researchers also found that RIL having more outsiders liabilities and other two selected companies i.e. TCS and HUL are having more shareholders' funds as compare to outsider's funds.

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## INCLUSIVE GROWTH WITH EQUAL OPPORTUNITIES- CHALLENGES AND PROSPECTS: A CASE STUDY

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### **Abstract:**

The term 'Inclusive growth' means 'growth with equal opportunities', and it focuses on both creating opportunities and making the opportunities accessible to all sections of society. Rural-urban migration, overcrowding and rapid unplanned urbanization results in the setting up of slums in almost all cities and urban areas of India. Inadequate infrastructure, lack of proper sanitary measures, higher levels of environmental pollution and lack of basic amenities of life are detrimental to the idea of 'Inclusive growth' and 'Sustainable development'. But a study of the socio-economic conditions of the slum dwellers of Bansberia Municipality of Hooghly District, West Bengal reveals that a huge gap persists between this marginalised group of slum dwellers and the rest of the population. The study makes the fact evident that besides the persistent problems of illiteracy, poverty, poor sewage, unhygienic living conditions and malnutrition, it is the women residing in the slums who are most vulnerable to poor socio-economic conditions of living. Gender segregation, domestic violence, alcoholism of men, malnutrition, economic dependence are hindrances to achieve the objective of "faster, sustainable and inclusive growth" as laid down by the Twelfth Five Year Plan. Study related to the socio-economic status of the women residing in the slums of this area is taken up to enquire into the extent to which the basic domestic and social obstacles of women prevent them from having access to the policies and programmes undertaken at macro level by government and other local bodies.

**Key words:** Equity, Inclusive growth, Socio-economic disparity, Urban Space, Women slum dwellers.

### **Introduction:**

The term Inclusive growth means growth with equal opportunities, and it focuses on both creating opportunities and making opportunities accessible to all. The democratic institutions that have flourished in India, is committed towards that attainment of a progressive economic development together with a sustained improvement in the quality of life of its people. This is very well reflected in the aspirations which the Twelfth Five Year Plan seeks to fulfil. "Faster, Sustainable, and more Inclusive Growth" is set forth as the broad vision of the Plan. However, it has been pointed out that "Study of the history of human society reveals that in no society of the world women enjoyed absolute equality on par with men. Everywhere they [are] subject to

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inequality, discrimination and exploitation” (Rao *Sociology* 155). So long as the women are subjected to social discrimination and economic deprivation, the target of attaining an inclusive and sustained growth will remain unattained. A case study of the women slum-dwellers residing in Bansberia Municipal area in the district of Hooghly, West Bengal truly reveals what Amartya Sen in his *Development as Freedom* has pointed out that

Development can be seen as a process of expanding the real freedoms that people enjoy. Focussing on human freedoms contrasts with narrower views of development, such as identifying development with the growth of Gross National Product or with the rise of personal incomes, or with industrialization, or with technological advance, or with economic arrangements. (Sen *Development* 4)

**Methodology:** The study is based on both primary and secondary data sources. The secondary data are provided by the Bansberia Municipality and different Census Reports are taken into consideration. The primary data are collected on the basis of a survey conducted between 26<sup>th</sup> and 30<sup>th</sup> November, 2019. The survey was carried out among 50 slum dwelling women of different ages through structured questionnaire. The women were selected on a random basis from different slum clusters of the area.

**Results:** An environmentally sustainable global economy has become an integral part of the concept of social justice. The Twelfth Plan in India has asserted to provide priority to women and children from the poorest communities. The main objective of our present study is to enquire into the fact that whether mere formulations of plans and objectives are enough to ensure sustainable and inclusive growth or whether the fact lies that the manifestations of “un-sustainability” are rooted in local histories and political and cultural traditions. Our survey was thus targeted on slum dwelling women of the Bansberia Municipality, to study the real causes of “un-sustainability” and the major hindrances of inclusive growth.

Bansberia Municipality is situated on the western bank of the river Hooghly covering the urban towns of Bansberia and Tribeni. The latitudinal and longitudinal extension of the area are 22 degree 56’ 10.23” to 23 degree 02’ 52” North and 88 degree 22’ 51.34” to 88 degree 24’ 24.13” East. According to the 2001 Census, the Municipality covers an area of 9.07 sq. km which is about 0.29% of the total area of Hooghly district. The Bansberia Municipality is one of the oldest Municipalities of Hooghly district, and it was established in 1869. At present, the Municipality comprises of 22 wards. According to Census 2001, the total population residing in this area is 1,04,412 and the population density is 11,512 per sq. km (*Draft Development* 9). A close examination of the settlement pattern of the area reveals that because of the presence of industries like Dunlop India (P) Ltd; Ganges Jute (P) Ltd. and also other industries like Kesoram Rayon and Kesoram Spun Pipes, Tribeni Tissues Ltd. within its infringes, there has been a massive influx of population into this urban centre and has thus led to an insatiable demand for urban space. In this regard it can be pointed out that “... enduring patterns of slum formation and growth took shape as industry created a demand for labour” (Schenk 93). Like almost all cities and urban areas in India, this Municipal area too reveals the extent to which rural-urban migration, overcrowding and rapid unplanned urbanization has resulted in setting up of slums and squatter settlements in the area. As per the data supplied by the Bansberia Municipality, the area has 60 slum

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pockets with about 18,232 people residing in the slums, which counts nearly 17.45% of the total population of the area.

List of Slums:

Cluster 1

SL NO	SLUM NO	WARD NO	SLUM NAME	POPULATION
1	2	2	KALYANNAGORE	1812
2	3	3	AMAL PALLY	882
3	4		NEW COLONY	1242
4	5		ADIBASIPARA	144
5	46		18-GHAR COLONY	228
6	48	4	PARNA KUTHIR	198
7	49	5	AMAL PALLY-2	834
8	10	6	GOVT. COLONY (ANGSIK)	342
9	53		KUNDU GHAT	96
10	54		DHOPA GHAT	186

Cluster 2:

SL NO.	SLUM NO.	WARD NO.	SLUM NAME	POPULATION
11	11	7	MITRA BAGAN	432
12	56		DALANPARA JELIAPARA	384
13	57		JALESWARI GHAT	144
14	58	8	MAJHERSARAK	240
15	59		GARHBARI	726
16	60		RASHBAGAN	420
17	8	18	KHUDIRAM PALLY	960
18	50		SHIBTALA COLONY	510
19	51		SUBHAS PALLY	300
20	52		NABIN PALLY	630

Cluster 3:

SL NO.	SLUM NO.	WARD NO.	SLUM NAME	POPULATION
21	12	9	HARIJAN PARA	480
22	13		SAHEB BAGAN	486
23	61		JELIAPARA RUDRALANE	168
24	62		JAMAI GOLI	228
25	20	12	JYOTI COLONY	1266
26	21		3 NO. SHIBSOHAGINI	1494



			COLONY	
27	68		1 NO. SHIBSOHAGINI COLONY	1842
28	69		2 NO. SHIBSOHAGINI COLONY NARAYANI PALLY	828
29	70		NARAYANI PALLY	600
30	71	13	RAMESWARPUR	96
31	72		RAMKRISHNA PALLY	438
32	73		SARASWATI COLONY	774

**Cluster 4:**

SL NO.	SLUM NO.	WARD NO.	SLUM NAME	POPULATION
33	23	13	NETAJI NAGAR	1152
34	74		B.P.R. COLONY	426
35	24	14	RAILGHAT	666
36	25		BINOY BADAL DINESH	366
37	75		B.P.R. COLONY	720
38	36	16	RAILGHAT COLONY	198
39	40	17	KONCHATI	534
40	41		SINGH PARA	498
41	43		MANDIR PARA	588
42	44		MATH BARI	414
43	45	22	DAMRA	360

**Cluster 5:**

SL NO.	SLUM NO.	WARD NO.	SLUM NAME	POPULATION
44	26	15	MALOPARA	690
45	27		SUKANTA PALLY	1050
46	28		BRAHMACHARI	1836



			COLONY	
47	76		RAILGATE	1416
48	77		18-BIGHA	1134
49	78		MAJUMDAR PALLY	1968
50	79		ADHIKARY PARA	168
51	30	21	MATH PARA	780
52	31		UMA PALLY	642
53	32		SASTHITALA	318
54	83		ADHIKARY PARA	570

**Cluster 6:**

SL NO.	SLUM NO.	WARD NO.	SLUM NAME	POPULATION
55	88	2	NIRANJAN PALLY (ADIBASI)	480
56	33	16	SHANTI COLONY	342
57	34		SITARAM PALLY	90
58	35		RATHTALA COLONY	774
59	37		DAS COLONY	750
60	38		GOVT. COLONY	324
61	39		NEW COLONY	258
62	85		1 NO. AMTALA COLONY	780
63	86		2 NO. AMTALA COLONY	846
64	80	21	LICHUTALA	174
65	84		SARADA PALLY	510

SOURCE: BANSBERIA MUNICIPALITY

**Discussion:** Poverty reduction, environmental protection, promotion of health facilities, disaster risk reduction are primary objectives to make human development sustainable. Ever since the First Earth Summit or Rio Summit (1992), an environmentally sustainable global economy has become an integral part of the concept of social justice. But the living conditions of the slum dwellers of the said area reveal that besides being economically backward, they are also deprived of basic amenities of



sustainable livelihood like access to fresh water, health and sanitation measures. The Encyclopaedia Britannica defines Slums as "... residential areas that are physically and socially deteriorated and in which satisfactory family life is impossible" (*Report of the Committee 2*). A survey carried out in the slum pockets of the area between 26<sup>th</sup> – 30<sup>th</sup> November, 2015, depicts that about 15% of the slum dwellers reside in 'Kuccha' houses without proper sanitation and latrine facilities. The average number of family members varies from six to eight and nearly about 42% of the households surveyed live in a single room without proper kitchen and bathroom.

The survey conducted among the households residing in the slums and as per the data supplied by the Bansberia Municipality the fact which becomes evident is that the squatter settlements of this area owes to the establishment of the once flourishing industries namely the Dunlop India Pvt. Ltd and the Ganges Jute Mill. The slum population boomed as rural migrants, migrants from other states and even other districts of West Bengal flocked to the area to act as labourers in the factories. The study states that about 75% of the slum dwellers are third or fourth generation dwellers of this area. The presence of a large section of Hindi speaking population who are mostly migrants from Bihar and Uttar Pradesh is noticed. A striking paradox is that while "Generation of productive and gainful employment with decent working conditions on a sufficient scale to absorb the growing labour force was a critical element in the Eleventh Plan strategy for achieving inclusive growth" (*Twelfth Five Year Plan*, v.3, 124), about 40% of the slum dwellers of this area became unemployed owing to the two large scale factories of the Municipality turning sick. Most of the slum dwellers now act as hawkers, rickshaw pullers, bidishramicks, street vendors, construction labourers etc.

The Twelfth Plan has asserted that "High priority will be given to women and children from the poorest communities, ... migrants, those living in inaccessible or scattered hamlets, those living in insecure environments and the urban poor" (*Twelfth Five Year Plan*, v.3, 164). However, survey carried out among 50 slum dwelling women of different ages through structured questionnaire reveal that a huge gap persists between these marginalised group of slum dwellers and the rest of the population. The study makes the fact evident that besides the persistent problems of illiteracy, poverty, poor sewage and unhygienic living conditions, the women are most vulnerable to poor socio-economic conditions of living. As per the data supplied by the Municipality, at present there are 41 primary schools, one junior High School, 6 High Schools in the area. According to Census 2001, the overall literacy rate of the area is 71.62% with female literacy rate being 42%. Our study among the women slum dwellers of Bansberia Municipality reveals a striking feature. The study shows that nearly about 86% of the women surveyed are literate. But, only about 17.7% women (of the age group of 17 to 85) have passed Madhyamik and about only 5.5% have studied in H.S. and above H.S. level.

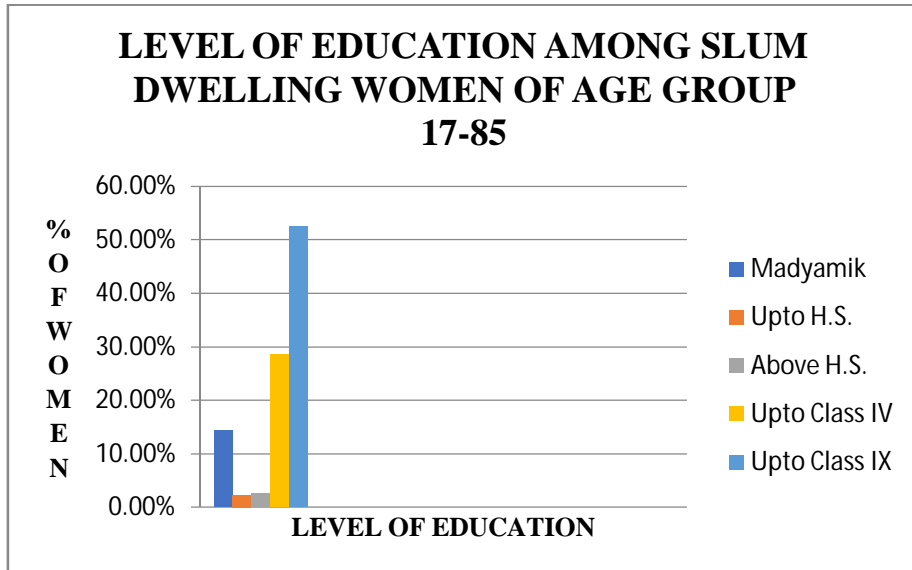


FIG I

The Twelfth Plan has pointed out that “Education is the most potent tool for socio-economic mobility and a key instrument for building an equitable and just society” (*Twelfth Five Year Plan*, v.3, 47). But our survey has brought about the fact that about 62% of the households are reluctant and apathetic about the higher education of their girl child. Though most of the children (about 90% of the age group 4-12) are enrolled in schools, but the families have no higher aspirations regarding their girl child. In the study area, the average age of marriage of the slum dwelling women shows an alarming feature. The survey conducted among the married women revealed the fact that about 5.5% of women got married before 15 years of their age, 65.5% of women married between 16-20 years and only about 30% of women got married after 21 years. The women who got married at a comparatively later age are more educated than women who married at an earlier age. Among the slum dwelling women of this area about 25.6% have one child, 30.4% have two children and about 50% have more than three children. Another related aspect is the health of the women giving birth to child. The survey makes it evident that though most of the households have taken access to institutional delivery in the recent past, but the incidence of delivery at home is also not negligible. Most of the women are not aware of the ante natal and the prenatal care. Several schemes like Janani Suraksha Yojana (JSY), Ayushmani Scheme of the Government of West Bengal are in vogue. It has been pointed out in the District Human Development Report of Hooghly that “The reproductive health of mother depends more on social phenomena than the biological determinants” (142). Traditional belief, lack of social awareness, and at most cases over dependence on the male members of the family prevent these women from having access to public health care facilities. In general, incidence of respiratory diseases, fever, viral infection, skin diseases, vector borne



diseases like malaria, cholera etc are high among the slum dwellers. At present, public health facilities are available to all sections of society, but it is obvious that not merely facilitating equal opportunity, but creation of conditions in which the disadvantaged sections of society including girls, children and economically backward sections of the society can avail the opportunities is required. Herein lies the necessity of the existence of an organised civil society. As it has been stated in the Twelfth Plan that the “social justice objectives” and the target of inclusive growth can be achieved only “with full participation in the benefits of development” on the part of all the marginalised groups (*Twelfth Five Year Plan*, v.3, 221-222).

David Pearce, Edward Barbier and Anil Markandya observes, “[w]hat constitutes development depends on what social goals are being advocated by the development agency, government, analyst or adviser” (*Sustainable 2*). As per the report received from the Bansberia Municipality several schemes like National Slum Development Programme (NSDP), Basic Minimum Service (BMS), SwarnaJayantiSahariRojgarYojana (SJSRY) have been undertaken to provide employment to urban youth and to provide basic amenities like food, primary education, housing, connectivity, supplementary nutrition, safe drinking water etc.,. At present too several projects for developing social infrastructure are in progress under several schemes like Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Rajiv AwasYojna etc. However:

In devising new policies for ... change, policy makers need to understand that policy is not so much implemented as it is reinvented at each level of the system. Beliefs, knowledge, leadership and motivations are some of the factors that produce what Richard Elmore (1983) has called ‘the power of the bottom over the top’. (Darling-Hammond 647)

“The ending of gender based inequalities, discrimination and violence is an overriding priority in the Twelfth Plan” (*Twelfth Five Year Plan*, v.3, 164). However, economic empowerment, encouraging women’s participation in governance, inclusiveness of all categories of vulnerable women, developing social and physical infrastructure are the major objectives for women emancipation as laid down by the Twelfth Five Year Plan. But social problems like domestic and physical violence, dowry, molestation, sexual exploitation, alcoholism etc restrict the women from having the fullest benefits from the programmes and policies undertaken at macro level. Our survey reveals that out of 50 surveyed households about 30% of the households did not experience any kind of crimes against women. About 10% remained silent. Nearly 60% of the households experienced social tortures like eve-teasing, domestic violence like physical torture, dowry exploitation, sexual harassment etc. Confinement of women to their domestic realm, restrictions on movement and lack of social exposure further accelerates the problem of social deprivation. Another burning social problem is alcoholism by most of the male members of this slum area. Pressure for money and physical torture is a common problem faced by women of the households whose male members are alcoholic.

The study reveals that nearly 87% of the women in the area undertake different kind of jobs for their livelihood. Most of the slum dwelling women act as maids in different

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households, some of them act as street vendors, hawkers, while others undertake tailoring jobs, bidi making, jari making, goatary, weaving etc. But most of their earnings are spent to fulfil the mere subsistence requirements of their families. Most of the factories of the area turning sick, the economic problem of most of the households of the area has increased to a great extent. The graph below underlines the socio-economic condition of the women of Bansberia slums between the age group of 15 and 60.

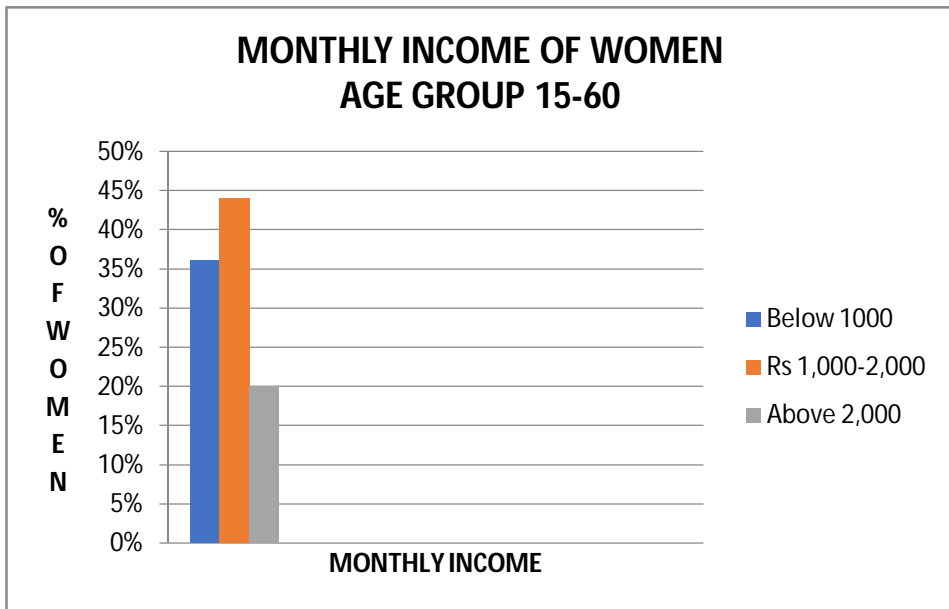


FIG II

Lower standard of education and lack of social awareness restrict these women from getting better jobs. The dependence on money lenders, informal borrowings are also common among the group to fulfil their requirements. But several women are also seen to have access to Self Help Groups to get themselves engage in different kinds of activities.

### Conclusion:

Although both the challenge of sustainable development and inclusive growth have worldwide implications, but there is general understanding that the local realities are manifestations of 'un-sustainability' and they are quite different and rooted in local histories, local, political and cultural traditions. The use of unsafe drinking water, food contamination, indoor air pollution causes severe health hazards to the women and prevent them from contributing to productive activities. Social awareness and shared responsibilities from all sections of the society can minimise the occurrence of social crimes and general health hazards of women. As The Human Development Report 2005



states “Deprived of public goods-such as information and legal rights- people are denied opportunities to contribute to growth.” It further asserts, “Where extreme inequalities based on wealth, gender or region leave a large section of society with insufficient assets and endowments, society as a whole suffers from the resulting inefficiency, and extreme inequalities [which] weaken political legitimacy and corrode institutions”(15). Social problems attribute to degradation of confidence, ethics and morality of human beings and prevent the people from taking active part in the growth process. A close examination of the case of Bansberia Municipality makes it evident that an approach towards sustainable human development is likely to be based on a complex web of intertwined factors rooted in the political, cultural and economic prerequisites of a particular area. Good governance characterized by active participation by all stakeholders, transparency, accountability, existence of a strong and viable civil society and awareness by all sections of the society can pave the path towards inclusive growth and sustainable development. As Julius Nyerere, the first President of Tanzania observed, “A country, or a village, or a community cannot be developed; it can only develop itself” (*Freedom and Development* 25).

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## INFRASTRUCTURAL FACILITIES AVAILABLE IN KASHMIR VALLEY: AN OVER VIEW

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### **Abstract:**

Tourism and development of infrastructure are interconnected sectors in the sense that better infrastructure, will provide the way for more tourism related **activities**. Lack of infrastructure is among the main causes of underdevelopment of tourism. In fact, the tourism industry of Kashmir was affected by the political insurgency in the valley during the late 80s to 90s. But, with the passage of time, situation became favorable in the Kashmir and its tourism industry got its lost. The success of Tourism Policy rests on the creation of the adequate and sustainable tourism infrastructure.

**Key words:** Kashmir, Infrastructure and Availability.

### **Introduction:**

Tourism infrastructure is the basis of tourism development and utilization of existing destination resources. Tourism infrastructure includes a large number of services, necessary to meet the needs of tourists and increase satisfaction during their stay at the destination. The infrastructure for tourism thus includes basic infrastructure components like airports, railways, roads, waterways, electricity, water supply, drainage, sewerage, solid waste disposal systems and services. Moreover, facilities like accommodation, restaurants, recreational facilities and shopping facilities also comes under the ambit of Tourism Infrastructure. Accommodation, transport and recreation facilities are key components of a major tourism destination. The competitiveness of these facilities at a national or international scale determines whether they become valuable assets for, or likely impediments to, attracting visitors to a destination. (Jan Warnken 2002)

### **Objectives:**

Following are the objectives of this research work:

- To delineate the available infrastructural facilities in the valley of Kashmir
- To access the available infrastructural facilities in the valley of Kashmir

### **Types of tourism infrastructure:**

A sound tourist framework makes any tourist destination hot. Tourist infrastructure chiefly rotates around the essential three segments of sightseers i.e. Fascination, Accessibility and Accommodation. Fascination is the fundamental reason that why a

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tourist visits/should visit to a destination. The fascination can be natural or cultural in nature at the destination. In any case, the fundamental the travel industry infrastructure falls under the other two parts of visitor's items i.e. accessibility and accommodation (Khanday and Subramaniyan 2016).

**Accessibility:** Basically the travel industry infrastructure caters the list of essential services required for the fruitful tour activity operators with all comfort to the tourist. The accessibility is legitimately related with the transport (road, rail, water and air) administrations. Along these lines, the advancement of street, rail track, air terminals and ports are the significant part of accessibility segment separated from the accessible kinds and principles of vehicles for the tourism development.

The fame of Kashmir valley, as a visitor heaven, is all over. To the extent its travel industry framework is concerned, it is still immature. Starting at now the street system isn't wide enough to oblige the traffic stream and some lesser realize places of interest are not all around associated for the vehicular services. Kashmir is a land-locked region. The primary transportation to access and enjoy its Beauty is by air and land as it were. Surface transport has been the most significant

way of bringing the outsiders to the region for amusement purposes. Kashmir valley is connected with Jammu and Ladakh regions by road and air. It approaches Jammu district and the other states of India through the Banihal road tunnel near Qazigund on national highway NH 1A and through NH 1B that goes through Sinthan pass and Kishtwar (wikipedia). Railway system of Kashmir, which interfaces it with rest of the nation, is in advancement. Be that as it may, rail transport is utilitarian inside Kashmir valley since October 11, 2008. At present railroad association is accessible from Baramulla to Banihal segment with the length of 154.9 km that goes through Badgam, Srinagar, Pulwama and Anantang districts. Then again valley has one universal airplane terminal, Sheik-ul-Alam international air terminal, in the Srinagar city that operates day by day flights for the passengers. Pawan Hans chopper administration is accessible for amaranth travellers. The horse service are rendered to visitors in Pahalgam, Sonmarg, Gulmarg, Yousmarg and other trekking courses for their agreeable travel. Shikara boat is likewise utilized as the methods for the transport when visitors are shipped to houseboats from the primary street or the other way around in Dal lake and Jhelum river (Dar, 2018).

Like better road framework Kashmir is missing powerful visitor transport as well. Indeed, even open vehicle isn't able to fulfill the need tasteful. Generally, open vehicle is limited up to intercity transport ends. Tourist use to board private soma taxis, or different vehicles from Srinagar to visits distinctive visitor place in Kashmir. Acc to table .1

**Table: 1 Category Wise Registered Passenger’s Vehicles in Kashmir Up to March 2018.**

S.no	District	Buses	Mimi. Buses	Taxis	3- Wheelers	Cars	Jeeps	Other	Total
1	Srinagar	3517	4110	9507	20889	107403	6518	5820	157764
2	Budgam	123	426	1594	3022	17829	312	1281	24587
3	Baramulla	187	978	4021	2192	27319	276	2158	37131
4	Kupwara	105	277	2030	324	8407	68	664	11875
5	Anantnag	202	1175	5963	2977	24148	152	2373	36990
6	Pulwama	94	639	1497	2394	16139	74	1718	22555
7	Ganderbal	4	58	195	646	4843	36	108	5890
8	Bandipora	12	27	494	933	4046	1	59	5572
9	Shopian	28	84	934	777	6075	82	73	8053
10	Kulgam	14	43	644	1500	3681	10	121	6013

Source: [Jaktrans.nic.in/statisticalinformation.htm/](http://Jaktrans.nic.in/statisticalinformation.htm/) statistical information on motor vehicles department govt. Of j &k

Water transport is the need over and above the method of diversion in Kashmir valley generally water transport is utilized on Dal lake and waterway Jhelum taxi Shikaras and motor boats are utilized for both transport and recreational reason on dal lake Manasbal, and river Jhelum passengers boats and dongas are utilized for waterway crossings where for fishing in a few water bodies in valley.

**Table no. 2 Total Registered Shikarawalla’s in Kashmir valley (2020).**

S. No	Area wise	Total Registered
01.	Dal Lake	3885
02.	Nigeen Lake	670
03	River Jhelum	236
04	Manasbal	90
Total		4881/-

Source: *Tourism department, Govt. of J & K (2020).*

**Table no.3:Total Registered Motor boat/ Ferry Boat/ Paddle Boat in Kashmir valley (2020)**

S. No	Area wise	Total Registered
1.	Dal Lake	52
2.	Nigeen	25
3.	Nigeen Ferry Boat	01
4.	Paddle Boat Dal	06
Total No.		84

Source: *Tourism department, Govt. of J & K (2020).*



Before the advanced methods for transport Kashmiri were utilizing conventional means of transport for conveying overwhelming things starting with one spot then onto the next and visiting far off areas. Their methods for transport were generally influenced with climatic and physiographic aspects of the area. Pony dandy, sledges methods for transport on land routes. Today, Pony and Sledges are utilized for interesting and shipping sightseers at various vacationer places in Kashmir valley. They are powerful source of gaining for nomads and individuals living around some well-known visitor spots of Kashmir, for example, Pahalgam, Gulmarg, Sonmarg, Yusmarg, Aharbal and Doodhpathri.

**Table no. 4: Resort wise traditional mean of transport in Kashmir valley(2020).**

Resorts	No. of Pony Walls	No. of Dandy Walls	No. of Sledges
Pahalgam	4899	161	125
Gulmarg	1751	330	1199
Sonamrag	2700	22	10
Yusmarg	600	..	...
Aharbal	900	..	..
Doodhpathri	03	...	...
<b>Total</b>	<b>10904</b>	<b>513</b>	<b>1334</b>

Source: Tourism department Govt.of J&K (2020).

**Accommodation:**

The accommodation advancement is a capacity and some portion of one's travel to destination and at the same time it is simply the tourism industry improvement. Accommodation is a home of tourists away from home where he/she gets a wide range of living services. The valley appears militancy affecting since late 80's before that, the valley was peaceful and one of the most visited spot in India. The pre political strife time of the locale saw enough created traveler framework in the valley however during the time of 90's its most extreme vacationer infrastructure was distorted. During that period numerous hotels with takers, were changed over either into military set up or lodging for ministers and administrators. Many of them are as yet used for the equivalent. Presently with the recuperation of the tourism industry in Kashmir numerous foundations have been again utilized for the tourist accommodation purposes. Which are for the most part situated at high requested tourist place Srinagar, Gulmarg, Sonmarg, Pahalgam. Srinagar houses a noteworthy portion of all convenience units when contrasted with Gulmarg, Pahalgam and Sonmarg apart from the cutting edge type present day sort of lodging accommodation Kashmir is outstanding for houseboat convenience chiefly found in Dal lake, Nigin lake, Naseem bag, river Jhelum and other location in the valley. The number of houseboats is based on survey 2009 by tourism after the construction of these houseboats were banned to save the beauty of these water bodies and form pollution. (Dar, 2018,J&K Tourism 2020)



**Table no 5:Accommodation Units at Different Tourist Places In Kashmir Valley (2020).**

S.No	Name of sports	Categories	No. Of Units	Total
1	Srinagar	A	86	432
		B	114	
		C/D	232	
2	Pahalgam	A	14	99
		B	19	
		C/D	66	
3	Gulmarg	A	17	46
		B	21	
		C/D	08	
4	Sonamarg	A	10	16
		B	1	
		C/D	5	
5	Yousmarg	A	Nil	4
		B	1	
		C/D	3	
<b>Total</b>				<b>597</b>

Source: Tourism department, Govt. of J & K (2020).

**Table no.6:General detail of guest houses in Kashmir division (2020)**

S. No	Tourist places	Total Registered
01.	Srinagar	614
02.	Sonamarg	17
03.	Yusmarg	07
04.	Manasbal	03
05.	Gulmarg	16
06.	Pahalgam	172
<b>Total</b>		<b>829</b>

Tourism department, Govt. of J & K (2020).

**Table no 7 Houseboats Accommodation Units in Srinagar (2020).**

Name of sports	No. Of units
Dal lake	702
Nigin lake	143
Naseem bag	5
River Jhelum	142
Other location	65
<b>Total</b>	<b>1057</b>

Source: Tourism department, Govt. of J & K (2020).



**Drinking water:**

Almighty Allah has bestowed numerous freshwater bodies to the Kashmir valley. These water bodies hypnotize to the tourists as well as also extinct the quest of thirsty people. The water of various lakes springs and rivers of valley is utilized for drinking purposes after refinement, even at different places;the water of lakes, springs and streams is utilized without cleansing. Likewise, Department of Public Health Engineering, Govt. of Jammu and Kashmir has taped many water bodies and dug a number of wells for providing the unadulterated, consumable and satisfactory drinking water to the rural and urban areas. What is more packed mineral water is promptly available at all the tourists' spots and every market in the Kashmir valley.

**Banking:**

With the ushering of new period of globalization, the concept of banks and banking has experienced an epitome shift. furthermore, with the RBI taking strong estimates dependentproposal of the Narsimahan's Committee, the scene of Indian banking had changed altogether (Abrol, V,2014). The banking sector is one of the best dynamic part of Kashmir valley. Nearly all the main tourist spots of Kashmir have a handy accessibility of banking facilities. There is a sizable amount of banking branches of different banks in the Kashmir. Jammu and Kashmir Bank, is the main bank in the Kashmir valley followed by the State Bank of India (SBI), Punjab National Bank (PNB), axis bank, HDFC Bank etc.(Dar 2016)

**Medical facilities:**

Health and medical facilities are the basic requirement to an individual, regardless of his/her place of habitation, to be an ordinary and dynamic for everyday activities, various medical institutes are established in Kashmir for medical servicesand treatment. Mainly the important hospitals arelocated towns of all districts in Kashmir valley. While, the far flung areas are having health centers with lesser facilities.There are scarcely any tourists spot in Kashmir which are having some government wellbeing and clinical organizations separated from the privet medical clinics and centers. For any complicated medical issue, patients need to surge Srinagar for the treatment. Hospitals in Srinagar territory are well equipped and almost every aliment can be treated effectively there.

**Table no. 9 Health centers in Kashmir valley**

S.NO	Name of Institution	Number of Institution
1	District hospitals.	07
2	Sub district hospitals.	43
3	Primary health centers.	212
4	Allopathic dispensaries.	108
5	Sub centers.	972
6	Medical aid centers.	94
7	District hospitals.	05
	Maternity hospitals	09
	Leprosy hospital	10
	<b>Total</b>	<b>1451</b>

Source: <http://jkhealth.org/jam2.php>.



### Communication:

The overall communication system and facilities are average in the Kashmir valley. Significant tourist's places of Kashmir valley have better cellular, internet and other communication faculties. There are many tourist places (Bungas, Lolab valley, Gurez, Drang, Buth ,Daksum, Doodhpathri and so on) where communication issues exist in Kashmir valley. Jammu and Kashmir tourism development corporation (JKTDC) have created 20 tourist development Authorities centers at different tourist places in the state Jammu and Kashmir, while, the table no. 10 tourist development authorities are in Kashmir valley (shown in table ). Tourists are acknowledged here about local sight seen accommodation, food, transport, beverage facilities and so on.

**Table no.10:Tourism Development Authorities of Kashmir valley.**

S.no	Name of Tourist Development Authority.
1	Pahalgam Development Authority
2	Gulmarg Development Authority
3	Sonamarg Development Authority
4	Kokernag Development Authority
5	Verinag Development Authority
6	Aharbal Development Authority
7	Doodhpathri Development Authority
8	Yousmarg Development Authority
9	Manasbal Development Authority
10	Lolab- Bangus-Drangyari Development Authority

Sources: [http://jktc.nic.in/field\\_office.html](http://jktc.nic.in/field_office.html) (30/06/2020).

### Shopping opportunity:

Shopping is an important at a destination from both tourist as well as host perspective. For the former, keepsakes are the retrievable tourist products which go far in assisting with recalling the significant memories of the destination. For the latter shopping it gives priceless publicity aside from bringing extra income. Luckily, Kashmir offers wowing deal to the tourist for purchasing the exceptional and world well known items. Doing shopping in Kashmir is one of the prime motives of many tourists to visit Kashmir. Kashmir is known for best walnut woodcarving items in the world. The world famous Paper-mache, dry fruit products (almond, walnut and so on), saffron, stone gems, crewel weaving, and cricket bats, etc. Its exceptional and magnificent art and craft for shopping comprises a long list of products made and designed by skillful craftsmen. the world well known wool, Pashmeena and Shahtoosh shawls are worth to purchase in Kashmir. For decorating the floor of home Namda and Qaleen/carpet are ideal to purchase in Kashmir. Various high qualities handmade and engraved things for everyday use and for display purpose are accessible in the markets. In any case, Srinagar is the best spot for shopping in Kashmir, shopping can be done from Gulmarg and Pahalgam also. Ones tour to Kashmir without doing shopping is surely incomplete.





### Conclusion:

The tourism industry and development of infrastructure are interrelated spheres as in better infrastructure, will give the best approach to more the tourism related activities. Absence of infrastructure is among the primary causes of underdevelopment of tourism. Tourism industry of Kashmir was influenced by the political rebellion in the valley during the late 80s to 90s. In spite of that, with the progression of time, circumstance got good in the Kashmir and its tourism industry got its lost. The accomplishment of Tourism Policy builds on the formation of the sufficient and reasonable the tourism infrastructure. The hotels accommodation in Kashmir valley is insufficient and need to build budget hotels at new visitor spots and tourist circuits. The Government will find a way to attract in well-known lakes as significant tourist places. So as to keep up and develop up their excellence, steps will be taken in joint effort and consultation of Forest and Environment department. The health facilities are inadequate in Kashmir valley especially at the tourist spots like Pahalgam, Gulmarg, and Sonamarg and so on. So there is need of constructing well equipped hospitals at these tourist places.

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## ESTIMATION OF PARAMETERS OF ALPHA LOGARITHM TRANSFORMED RAYLEIGH DISTRIBUTION BY USING MAXIMUM PRODUCT OF SPACINGS METHOD

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### Abstract:

In this paper, a new two-parameter distribution called the Alpha Logarithm Transformed Rayleigh (ALTR) distribution and its properties introduced by Subrahmanyam et al (2020) and combined study an estimation of parameters of Alpha Logarithm Transformed Rayleigh (ALTR) distribution by using Maximum Likelihood method with Vijaya Lakshmi et al (2020) to scale ( $\sigma^2$ ) and shape ( $\alpha$ ) with different sample sizes. We develop a practical procedure to construct an estimation of parameters of Alpha Logarithm Transformed Rayleigh distribution by using Maximum Product of Spacings (MPS) method. We present maximum product of spacings of the unknown parameters in this distribution using Newton-Raphson. We also computed Average Estimate (AE), Variance (VAR), Standard Deviation (SD), Mean Absolute Deviation (MAD), Mean Square Error (MSE), Relative Absolute Bias (RAB), Relative Error (RE) and Simulated Error (SE) for both the parameters under sample based on 1000 simulations to assess the performance of the estimators. A simulation study is conducted to evaluate the performance of the maximum product of spacings estimates. Finally, the proposed estimation method is applied on real data sets and the results are given. Which illustrate the maximum product of spacings is a powerful alternative to maximum likelihood estimation of unknown parameters for Alpha Logarithm Transformed Rayleigh distribution.

**Keywords:** ALTR, MPS, Average Estimate (AE), Variance (VAR), Standard Deviation (SD), Mean Absolute Deviation (MAD), Mean Square Error (MSE), Relative Absolute Bias (RAB) and Relative Error (RE).

### Introduction:

Rayleigh distribution is one of the distributions of prominent importance in life testing experiments and is named after Rayleigh (1980). It also finds an application in communication theory, in physical sciences to model wave heights, wind speed etc., in medical imaging sciences. When the shape parameter of two parameter Weibull distribution equals to 2, the resultant distribution turns out to be the Rayleigh distribution. The origin and properties of Rayleigh distribution were studied by Siddiqui (1962). Some other authors who contributed to this model are Merovci et al (2013), Ahmad et al (2014), Howlader and Hossian (1995) and Abd Elfattah et al (2006). The transformation has been applied by different researchers to obtain alpha power transformed distributions including alpha power transformed generalized exponential

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distribution by Dey et al (2017). Alpha-Power Transformed Lindley Distribution: Properties and Associated Inference with Application to Earthquake Data Dey et al (2018). .alpha power transformed Lindly distribution by Dey et al (2019), alpha power transformed extended exponential distribution by Hassan et al (2018). Alpha power transformed inverse Lindly distribution by Dey et al (2019). Alpha Power Rayleigh Distribution and Its Application to Life Time Data by Aliya Syed Malik (2017). Torabi (2008) proposed a general method of Minimum Spacings Distance Estimators and a related method of hypothesis testing based on Spacings. Torabi and Bagheri (2010) consider different parameter estimation methods in 73 extended generalized half log logistic distribution based on Complete and Censored Data. Ramamohan et al (2011) studied Estimation of Scale parameter ( $\sigma$ ) when Shape parameter ( $\beta$ ) is known in Log Logistic Distribution using Minimum Spacing Square Distance Estimation Method from an optimally constructed grouped sample. This spacings-based estimation procedure provides an alternative to the traditional parametric estimation methods like the method of moments, minimum 2, maximum likelihood (ML), etc. The estimation method that we propose here generalizes the idea contained in the maximum spacings estimator (MSPE) introduced by Cheng and Amin (1979, 1983) and independently discussed by Ranney (1984) and enjoys similar advantages. Cheng and Amin (1983) show that in such situations as a three-parameter Gamma, Lognormal or Weibull distribution where the ML method breaks down due to unboundedness of the likelihood, the maximum spacings estimation (MSPE) method produces consistent and asymptotically efficient estimators. In situations like mixtures of normals where the MLE is known to produce inconsistent estimators, the MPS estimators are consistent (see Ranney, 1984). Kaushik Ghosh (2001) studied a general estimation method using spacings it is shown that the maximum spacing estimator is asymptotically most efficient within the subclass of spacings-based estimators. Ehab Mohamed Almetwally et al (2019) studied the Maximum Product Spacing and Bayesian Method for Parameter Estimation for Generalized Power Weibull Distribution Under Censoring Scheme. Yongzhao Shao(2001) studied the Consistency of the Maximum Product of Spacings Method and Estimation of a Unimodal Distribution. Vijaya lakshmi, Raja Sekharam and Anjaneyulu (2018) studied Estimation of Scale ( $\lambda$ ) and Location ( $\mu$ ) of Two-Parameter Rayleigh Distribution Using Median Ranks method. Vijaya lakshmi, Raja Sekharam and Anjaneyulu (2019) studied Estimation of Scale ( $\theta$ ) and Shape ( $\alpha$ ) parameters of Power Function Distribution By Least Squares Method Using Optimally Constructed Grouped Data. Vijaya lakshmi and Anjaneyulu (2019) studied Estimation of Location ( $\mu$ ) and Scale ( $\lambda$ ) for Two-Parameter Half Logistic Pareto Distribution (HLPD) by Least Square Regression Method. Vijaya lakshmi and Anjaneyulu (2019) studied Estimation of Location ( $\mu$ ) and Scale ( $\lambda$ ) for Two-Parameter Half Logistic Pareto Distribution (HLPD) by Median Rank Regression Method.

In this section, we discuss about the estimation procedure for the unknown parameters for ALTR distribution. The idea behind the maximum product spacings parameter estimation is to determine the parameters for given the sample data. We present MPS of the unknown parameters of ALTR distribution using Newton-Raphson. We also computed Average Estimate (AE), Variance (VAR), Mean Absolute Deviation (MAD), Mean Square Error (MSE), Relative Absolute Bias (RAB) and Relative Efficiency (RE)

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for both the parameters under sample based on 1000 simulations to assess the performance of the estimators. A simulation study is conducted to evaluate the performance of the maximum product of spacings estimates. Finally, the proposed estimation method is applied on real data sets and the results are given. Which illustrate the maximum product of spacings is a powerful alternative to maximum likelihood estimation of unknown parameters for Alpha Logarithm Transformed Rayleigh distribution.

### 1. Probability density and distribution functions of ALTR

A random variable  $X \sim \text{ALTR}(\sigma^2, \alpha)$  has probability density function and is in the form

$$f(x) = \frac{\alpha(\alpha-1)\frac{x}{\sigma^2}e^{-x^2/2\sigma^2}}{\log(\alpha)\{\alpha-(\alpha-1)[1-e^{-x^2/2\sigma^2}]\}}; x > 0, (\sigma^2, \alpha) > 0$$

...(1)

$(\sigma^2, \alpha)$  are scale and shape parameters

A random variable  $X \sim \text{ALTR}(\sigma^2, \alpha)$  has cumulative distribution function and is in the form

$$F(x) = 1 - \frac{\log\{\alpha-(\alpha-1)[1-e^{-x^2/2\sigma^2}]\}}{\log(\alpha)}; x > 0, (\sigma^2, \alpha) > 0$$

...(2)

### 2. Survival and Hazard Functions of ALTR

#### Survival Function

A random variable  $X \sim \text{ALTR}(\sigma^2, \alpha)$  has Survival function and is in the form

$$S(x) = \frac{\log\{\alpha-(\alpha-1)[1-e^{-x^2/2\sigma^2}]\}}{\log(\alpha)}$$

...(3)

#### Hazard Function

A random variable  $X \sim \text{ALTR}(\sigma^2, \alpha)$  has Hazard function and is in the form

$$H(x) = \frac{\alpha(\alpha-1)\frac{x}{\sigma^2}e^{-x^2/2\sigma^2}}{\{\alpha-(\alpha-1)[1-e^{-x^2/2\sigma^2}]\}\log\{\alpha-(\alpha-1)[1-e^{-x^2/2\sigma^2}]\}}$$

...(4)

### 3. Quantiles and Random number generation of ALTR

#### Quantile function

A random variable  $X \sim \text{ALTR}(\sigma^2, \alpha)$  has Quantile function and is in the form

The  $p^{\text{th}}$  quantile  $x_p$  of ALTR distribution is the root of the equation

$$x_p = \sigma \sqrt{2 \log \left[ \frac{\alpha - \alpha^{(1-p)}}{(\alpha-1)} - 1 \right]}$$

...(5)

#### Random generating function

Let  $U \sim U(0,1)$ , then equation (5) can be used to simulate a random sample of size  $n$  from

the ALTR distribution as follows

$$x_i = \sigma \sqrt{2 \log \left[ \frac{\alpha - \alpha^{(1-u_i)}}{(\alpha-1)} - 1 \right]}, \quad i=1, 2, \dots, n. \quad \dots (6)$$

**4. Estimation of parameters of ALTR distribution Maximum Product Spacings (MPS) method**

Let  $D_i(\sigma^2, \alpha) = F(X_i/\sigma^2, \alpha) - F(X_{i-1}/\sigma^2, \alpha)$  for  $i = 1$  to  $n+$ , be the uniform spacings of a random sample from the ALTR distribution,

Where

$$F(X_0/\sigma^2, \alpha) = 0$$

$$F(X_{n+1}/\sigma^2, \alpha) = 1 \text{ and}$$

$$D_i = \begin{cases} D_1 = F(X_1) \\ D_i = F(X_i) - F(X_{i-1}) = F(X_{(2:m)}) ; i = 2, \dots, m. \\ D_m = 1 - F(X_m) \end{cases}$$

Clearly  $\sum_{i=1}^{n+1} D_i(\sigma^2, \alpha) = 1$ . The MPS estimates,  $\hat{\sigma}_{MPS}^2$  and  $\hat{\alpha}_{MPS}$ , are obtained by maximizing the Geometric mean of spacings,

$$G(\sigma^2, \alpha) = \left[ \prod_{i=1}^{n+1} D_i(\sigma^2, \alpha) \right]^{1/n+1} \quad \dots (7)$$

With respect to  $\sigma^2, \alpha$ , or, equivalently by maximizing the logarithm of the Geometric mean of sample spacings:

$$H(\sigma^2, \alpha) = \frac{1}{n+1} \sum_{i=1}^{n+1} \log D_i(\sigma^2, \alpha) \quad \dots (8)$$

The estimates  $\hat{\sigma}_{MPS}^2$  and  $\hat{\alpha}_{MPS}$  of the parameters  $\sigma^2, \alpha$  can be obtained by solving the following non-linear equations

$$H(\sigma^2, \alpha) = \frac{1}{n+1} \sum_{i=1}^{n+1} \log \left[ \log \left\{ \frac{\alpha - (\alpha-1)[1 - e^{-x^2 i - 1/2\sigma^2}]}{\alpha - (\alpha-1)[1 - e^{-x^2 i/2\sigma^2}]} \right\} \right] \quad \dots (9)$$

$$\frac{dH(\sigma^2, \alpha)}{d\sigma^2} = \frac{1}{n+1} \sum_{i=1}^{n+1} \frac{1}{D_i(\sigma^2, \alpha)} \left[ \frac{(1-\alpha)(x^2 i e^{-x^2 i - 1/2\sigma^2} - x^2 i_{-1} e^{-x^2 i/2\sigma^2} + (1-\alpha)x^2 i_{-1} + (\alpha-1)x^2 i)}{2\sigma^2(e^{-x^2 i/2\sigma^2} + \alpha - 1)(e^{-x^2 i - 1/2\sigma^2} + \alpha - 1)} \right] = 0 \quad \dots (10)$$

$$\frac{dH(\sigma^2, \alpha)}{d\alpha} = \frac{1}{n+1} \sum_{i=1}^{n+1} \frac{1}{D_i(\sigma^2, \alpha)} \left[ \frac{e^{-x^2 i/2\sigma^2} - e^{-x^2 i_{-1}/2\sigma^2}}{(e^{-x^2 i/2\sigma^2} + \alpha - 1)(e^{-x^2 i - 1/2\sigma^2} + \alpha - 1)} \right] = 0 \quad \dots (11)$$

Let we take,

$$\Delta_1 = e^{-x^2 i - 1/2\sigma^2}; \Delta_2 = e^{-x^2 i/2\sigma^2}$$

The reduced form of equations (10) and (11) are becomes

$$\frac{dH(\sigma^2, \alpha)}{d\sigma^2} = \frac{1}{n+1} \sum_{i=1}^{n+1} \frac{1}{D_i(\sigma^2, \alpha)} \left[ \frac{(1-\alpha)(x^2 i \Delta_1 - x^2 i_{-1} \Delta_2 + (1-\alpha)x^2 i_{-1} + (\alpha-1)x^2 i)}{2\sigma^2(\Delta_2 + \alpha - 1)(\Delta_1 + \alpha - 1)} \right] = 0 \quad \dots (12)$$

$$\frac{dH(\sigma^2, \alpha)}{d\alpha} = \frac{1}{n+1} \sum_{i=1}^{n+1} \frac{1}{D_i(\sigma^2, \alpha)} \left[ \frac{\Delta_2 - \Delta_1}{(\Delta_2 + \alpha - 1)(\Delta_1 + \alpha - 1)} \right] = 0 \quad \dots (13)$$

But the equations have to be performed numerically using a nonlinear optimization techniques.

Note that if  $x_{i+k} = x_{i+k-1} = \dots = x_i$ . We get  $D_{i+k-1}(\sigma^2, \alpha) = \dots = D_i(\sigma^2, \alpha) = 0$ . Therefore, the MPS estimators are sensitive to closely spaced observations, especially ties. When the ties are due to multiple observations,  $D_i(\sigma^2, \alpha)$  should be replaced by the corresponding likelihood  $f(x_i, \sigma^2, \alpha)$ .

Since  $x_i = x_{i-1}$ . The authors also present an interesting proof that the MPS estimates converge asymptotically to the ML estimates. Therefore, for the EEG distribution, the MPS estimators are asymptotically normally distributed (see Cheng et al (1983) for more details) with joint bivariate normal distribution given by

$$(\hat{\sigma}_{MPS}^2, \hat{\alpha}_{MPS}) \sim N[(\sigma^2, \alpha), I^{-1}(\sigma^2, \alpha)] \quad \text{for } n \rightarrow \infty \quad \dots (14)$$

Where  $I(\sigma^2, \alpha)$  is Fisher information matrix

$$I(\sigma^2, \alpha) = \begin{bmatrix} I_{11}(\sigma^2, \alpha) & I_{12}(\sigma^2, \alpha) \\ I_{21}(\sigma^2, \alpha) & I_{22}(\sigma^2, \alpha) \end{bmatrix} \quad \dots (15)$$

$$I_{11}(\sigma^2, \alpha) = \frac{dH(\sigma^2, \alpha)}{d\sigma^2}$$

$$I_{22}(\sigma^2, \alpha) = \frac{dH(\sigma^2, \alpha)}{d\alpha}$$

$$I_{12}(\sigma^2, \alpha) = I_{21}(\sigma^2, \alpha) = \frac{dH(\sigma^2, \alpha)}{d\alpha d\sigma^2}$$

$$\frac{dH(\sigma^2, \alpha)}{d\alpha d\sigma^2} = \frac{1}{n+1} \sum_{i=1}^{n+1} \frac{1}{D_i(\sigma^2, \alpha)} \left[ \frac{x^2_{i-1} \Delta_2}{2\sigma^4(\Delta_2 + \alpha - 1)^2} - \frac{x^2_i \Delta_1}{2(\Delta_1 + \alpha - 1)^2} \right] \dots (16)$$

### 5. Simulation Study

In this section, we develop a simulation study. The main goal of these simulations is to compare the efficiency of the different estimation methods for the parameters of the ALTR distribution. The following procedure was adopted:

Step 1: Set the sample size  $n$  and the vector of parameter values  $\varphi = (\sigma^2, \alpha)$ .

Step 2: Using the values obtained in step (2), compute  $\hat{\sigma}_{MPS}^2$  and  $\hat{\alpha}_{MPS}$  via MPS.

Step 3: Repeat steps (2) and (3)  $N$  times

Step 4: Using  $\hat{\Psi}$  of  $\Psi$ , compute the Average Estimate (AE), Variance (VAR), Standard Deviation (SD), Mean Square Error (MSE), Relative Absolute Bias (RAB) and Relative Error (RE). If  $\hat{\Psi}_{lm}$  is Median Ranks Method estimate of  $\hat{\Psi}_m$ ,  $m=1, 2$  where  $\Psi_m$  is a general notation that can be replaced by  $\Psi_1 = \sigma^2, \Psi_2 = \alpha$  based on sample  $l$ , ( $l=1, 2, \dots, r$ ), then the Average Estimate (AE), Variance (VAR), Standard Deviation (SD), Mean Absolute Deviation (MAD), Mean Square Error (MSE) and Relative Absolute Bias (RAB) and Relative Error (RE) are given respectively by

$$\text{Average Estimate } (\hat{\psi}_m) = \frac{\sum_{i=1}^r \hat{\psi}_{lm}}{r}$$

$$\text{Variance } (\hat{\psi}_m) = \frac{\sum_{i=1}^r (\hat{\psi}_{lm} - \hat{\psi}_m)^2}{r}$$

$$\text{SD} = \sqrt{\frac{\sum_{i=1}^r (\hat{\psi}_{lm} - \hat{\psi}_m)^2}{r}}$$

$$\text{Mean Absolute Deviation} = \frac{\sum_{i=1}^r \text{Med}(|\hat{\psi}_{lm} - \hat{\psi}_m|)}{r}$$

$$\text{Mean Square Error } (\hat{\psi}_m) = \frac{\sum_{i=1}^r (\bar{\psi}_{lm} - \psi_m)^2}{r}$$
$$\text{Relative Absolute Bias } (\hat{\psi}_m) = \frac{\sum_{i=1}^r |(\bar{\psi}_{lm} - \psi_m)|}{r\psi_m}$$
$$\text{Relative Error } (\hat{\psi}_m) = \frac{1}{r} \left( \frac{\sum_{i=1}^r \text{MSE} \sqrt{(\bar{\psi}_{lm})}}{\psi_m} \right)^2$$

The results were computed using the software R (R Core Development Team). The seed used to generate the random values. The chosen values to perform this procedure were  $\varphi = (3.5, 3)$ ,  $N = 1000$ , and  $n = (20, 40, 60, \dots, 200)$ .

## 6. Applications

In this section, we considered two real data sets. First data set consists of 62 observations of the strengths of 3.5 cm glass fibres, originally obtained by workers at the UK National Physical Laboratory. analyzed by Smith and Naylor (1987). The second data set is presented by Boag [29] and is related to the ages (in months) of 18 patients who died from other causes than cancer.

In Section 5, our simulation study indicated that the MPS estimators should be used for estimating the parameters of the ALTR distribution. Initially, we compared the estimates obtained from the different procedures with the MPS estimator. Then, we compared the results obtained from the ALTR distribution fitted by the MPS estimators with some common lifetime models, such as Rayleigh, Logistic, Gamma, Log normal, Weibull, and Generalized Exponential distributions.

The Kolmogorov-Smirnov (KS) test is considered to check the goodness of fit. This procedure is based on the KS statistic  $D_n = \sup_x |F_n(x) - F(x; \sigma^2, \alpha)|$

Where  $\sup_x$  is the supremum of the set of distances,

$F_n(x)$  is the empirical distribution function and  $F(x; \sigma^2, \alpha)$  is cumulative distribution function. In this case, we test the null hypothesis that the data comes from  $F(x; \sigma^2, \alpha)$ , and, with significance level of 5%, we will reject the null hypothesis if p value is smaller than 0.05. As discrimination criterion method, we considered the AIC (Akaike Information Criteria) computed, respectively, by

$$\text{AIC} = -2l(\hat{\Psi}, x) + 2k$$

Where  $k$  is the number of parameters fitted and  $\hat{\Psi}$  is estimate of  $\Psi$ .

The data set consists of 62 observations of the strengths of 3.5 cm glass fibres, originally obtained by workers at the UK National Physical Laboratory with scale  $(\sigma^2)=1$  and shape  $(\alpha)=3$ . The data are:

4.99, 3.97, 2.18, 3.14, 2.19, 4.96, 2.66, 4.98, 3.37, 2.85, 4.88, 3.27, 4.29, 3.29, 4.10, 4.76, 4.49, 4.24, 2.85, 3.16, 2.16, 2.34, 3.84, 4.52, 2.89, 4.87, 2.87, 2.40, 4.30, 3.73, 3.45, 4.98, 4.43, 2.09, 2.30, 2.89, 2.53, 2.01, 4.94, 2.23, 4.15, 2.73, 3.59, 3.27, 4.70, 2.14, 4.84, 4.46, 4.42, 2.57, 3.64, 3.54, 3.70, 3.95, 2.98, 4.23, 3.78, 4.84, 3.54, 3.03, 2.98, 3.89.

These data have also been analyzed by Smith and Naylor (1987).

We obtained

$$\hat{\sigma}_{MLE}^2 = 1.5064 \text{ and } \hat{\alpha}_{MLE} = 2.9431$$

$$\hat{\sigma}_{MPS}^2 = 1.3869 \text{ and } \hat{\alpha}_{MPS} = 2.5672$$

Results of the KS test (p value), AIC for the different probability distributions considering the above data set



Test	ALTR	Rayleigh	Logistic	Gamma	Log normal	Weibull	Generalised Exponential
KS	0.7821	0.0026	0.05623	0.0087	0.0000	0.0152	0.0000
AIC	1942.53	1989.23	1963.54	2103.53	2014.56	2152.23	2016.23

Boag Data Set 2

The data set related to the ages (in months) of 18 patients who died from other causes than cancer extracted from Boag (1949), which considered the Lognormal distribution to describe such data.

0.3, 4, 7.4, 15.5, 23.4, 46, 46, 51, 65, 68, 83, 88, 96, 110, 111, 112, 132, 162.

We obtained

$\hat{\sigma}_{MLE}^2 = 3.342$  and  $\hat{\alpha}_{MLE} = 6.1879$

$\hat{\sigma}_{MPS}^2 = 2.8215$  and  $\hat{\alpha}_{MPS} = 3.4298$

Results of the KS test (p value), AIC for the different probability distributions considering the above data set

Test	ALTR	Rayleigh	Logistic	Gamma	Log normal	Weibull	Generalised Exponential
KS	0.5487	0.0006	0.0068	0.0000	0.0000	0.0000	0.0000
AIC	1914.58	1994.21	2130.89	2021.5	1986.47	2235.01	2047.35

Comparing the empirical function with the adjusted distributions, a better fit for the ALTR distribution among the chosen models can be observed. This result is confirmed from AIC, since ALTR distribution has the minimum values among the chosen models. Moreover, considering a significance level of 5%, the ALTR distribution was the only model in which p values returned from the KS test were greater than 0.05.

7. Conclusions

1. MPS estimator is the best one for estimating the parameters of the ALTR distribution in comparison with MLE.
2. The MPS estimator has the smallest MSE, Variance (VAR), Mean Square Error (MSE), Relative Absolute Bias (RAB) and Relative Error (RE) for both parameters, proving to be the most efficient method compared to MLE for estimating the unknown parameters.

We evaluate the performance of the Maximum Product Spacings method for estimating the ALTR( $\sigma^2, \alpha$ ) Newton-Raphson simulation for a two parameter combinations and the process is repeated 10,000 times for different sample sizes  $n=20(20)200$  are considered. The MLEs and their Average Estimate (AE), Variance (VAR), Standard Deviaion (SD)Mean Absolute Deviation (MAD), Mean Square Error (MSE) and Relative Absolute Bias (RAB), Relative Error (RE) of the scale and shape parameters are unknown population parameters of ALTR distribution. Population parameters Scale ( $\sigma^2$ ) =3.5 and Shape ( $\alpha$ ) =3 in Table 1





Sample size	Parameters	AE	VAR	SD	MAD	MSE	RAB	RE
20	$\sigma^2$	1.405	0.8778	0.9369	0.0027	0.2195	0.1197	0.13380
	$\alpha$	1.4098	0.5057	0.7112	0.0781	0.1264	0.106	0.11850
40	$\sigma^2$	2.0202	0.876	0.9359	0.0184	0.0547	0.1691	0.06690
	$\alpha$	2.05	0.361	0.6008	0.0373	0.0226	0.1267	0.05010
60	$\sigma^2$	2.2984	0.8663	0.9308	0.0658	0.0241	0.206	0.04430
	$\alpha$	2.1232	0.4613	0.6792	0.0159	0.0128	0.1754	0.03770
80	$\sigma^2$	2.4689	0.8505	0.9222	0.008	0.0133	0.2357	0.03290
	$\alpha$	2.3651	0.3224	0.5678	0.0033	0.005	0.1693	0.02370
100	$\sigma^2$	2.5864	0.8346	0.9136	0.0863	0.0083	0.261	0.02610
	$\alpha$	2.5684	0.1863	0.4316	0.1235	0.0019	0.1439	0.01440
60	$\sigma^2$	2.6901	0.7872	0.8872	0.1435	0.0055	0.2777	0.02110
	$\alpha$	2.6288	0.1653	0.4066	0.0985	0.0011	0.1485	0.01130
70	$\sigma^2$	2.793	0.6998	0.8365	0.1145	0.0036	0.2828	0.01710
	$\alpha$	2.6791	0.1442	0.3797	0.1016	0.0007	0.1498	0.00900
80	$\sigma^2$	2.9429	0.4965	0.7046	0.2256	0.0019	0.2547	0.01260
	$\alpha$	2.766	0.0876	0.296	0.0968	0.0003	0.1248	0.00620
90	$\sigma^2$	3.1684	0.1979	0.4449	0.2235	0.0006	0.1705	0.00710
	$\alpha$	2.9693	0.0017	0.0412	0.2708	0.00001	0.0184	0.00080
100	$\sigma^2$	3.2407	0.1345	0.3667	0.2003	0.00034	0.1482	0.0052
	$\alpha$	3.0168	0.0006	0.0238	0.2555	0.000001	0.0112	0.0004

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बहुमुखी प्रतिभा की स्वामिनी मालती जोशी के उपन्यासों में सामाजिक यथार्थ के विविध रूप

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मालती जोशी बहुमुखी प्रतिभा संपन्न एवं संवेदनशील उपन्यासकारों में अपना एक विशिष्ट स्थान रखती हैं। मालती जोशी जैसी सृजनशील लेखिका के व्यक्तित्व की पहचान विभिन्न प्रतिमानों से ही संभव है। नवयुग की महिला उपन्यासकारों में आप सर्व प्रमुख हैं। साहित्यिक व सामाजिक गतिविधियों तथा समस्याओं को यथार्थ के धरातल पर परखने तथा मानवतावादी विचारों की कसौटी पर स्थितियों को व्याख्यायित करने की अपूर्व क्षमता मालती जोशी के रचनात्मक व्यक्तित्व का एक अभिन्न पक्ष बन कर प्रकट हुई। बहुमुखी प्रतिभा की स्वामिनी मालती जोशी का जन्म को औरंगाबाद में हुआ। मालती जोशी ने पटाक्षेप 1934 जून 4 पाषाणयु, राग विराग, सहचारिणीगचांद, ऋणानुबंध, गोपनीय, ज्वालामुखी के गर्भ में, निष्कासन, मन न भय दस बीस, सहमे हुए प्रश्न, परिणय, विश्वासगाथा, समर्पण का सुख, अमावास का शापित शैशव आदि उपन्यास लिखे। आप के उपन्यासों में, विस्फोट, पुनरागमनायक, शोभायात्रा सामाजिक यथार्थ के विविध रूप अभिव्यंजित हुए हैं। आपने अपने उपन्यासों में जीवन 18 स्थितियों का अंकन करते हुए विभिन्न सामाजिक व आर्थिक समस्याओं के मौलिक समाधान ढूँढने की कोशिश की है। "राग विराग" की नायिका काली है। उसकी आवाज की मधुरता पर नायक मर मिटता है और बिना माँ की आज्ञा के उससे शादी करता है। नायिका ने नौकरी कर नायक को इंजीनियर बनाया परन्तु उसके रंग के कारण मँबिटे उसे घर से निकाल देते हैं। वह फिर से अपना जीवन संगीत को समर्पित करती है। सामाजिक मूल्यों के साथ उसे पागल करार देने का मानसिक प्रयोग भी किया गया है। नारी की नियति को बड़े ही मार्मिक ढंग से प्रस्तुत करते हुए मालती जोशी ने "राग विराग" उपन्यास में मनोज अर्चना और कल्याणी के माध्यम से स्थितियों की व्यंजना यथार्थ के धरातल पर की है। "पटाक्षेप" उपन्यास में उन्होंने एक नये नैतिक बोध की ओर संकेत करते हुए औरतों को कस्बाई मनोवृत्ति को त्यागने पर बल दिया है।

मालती जोशी ने "पाषाणयुग-" में विधुर और बेमेल विवाह के प्रश्नों को उठाया है। "पाषाण युग" की नायिका ने चारचार बड़े बच्चोंवाले पिता को अपने पति के रूप में जब चुना तो - सारे बच्चे उसके विरोध में खड़े हो जाते हैं। कसूर पिता का था सजा नीरु को भुगतनी पड़ी। जिसने रातदिन मेहनत कर उसकी पुस्तक निर्माण में सहयोग दिया फिर भी पुस्तक को नायक - अपनी अपनी पहली पत्नी के नाम समर्पित करता है। उसके निधन पर बच्चों ने सोचा की नीरु सब पर अपना अधिकार जतायेगी। परन्तु उसने हर चीज बाँट दी और खाली हाथ चली गयी।



अर्थ की लिप्ता में डूबे बच्चों ने नीरु को भूला दिया। निष्कासन उपन्यास में माया की पुत्री विधु गंगाधर की मौत के बाद उससे इतनी नफरत करती है कि उसे देखतने ही उस पर पागलपार का दौर पड़ जाता है। उसके अचेतन में यह बात बैठी है कि गंगाधर को घर पर आने की छूट यदि माँ ने दी होती तो यह शायद उसका सब कुछ लूटने की कोशिश न करता। कभीकभी वह - माँ के प्रति सौत का सा स्वभाव रखती है।

“निष्कासन” उपन्यास में माँ के प्रति बेटी के मन में कुछ ऐसी ग्रंथियाँ पड गयी हैं कि उसे देखते ही वह पागल जैसी हरकतें करती है। इस उपन्यास में मानसिक यथार्थ के धरातल पर व्यक्ति जीवन और पारिवारिक जीवन में उठनेवाली समस्याओं पर प्रकाश डाला गया है। ‘ज्वालामुखी के गर्भ में’ उपन्यास में दो बहनों ने स्वयं की और अपने परिवार की जिन्दगी कब्रिस्तान जैसी वीरान बनाकर रखी है। दोनों को अपने-अपने दुःख इतने प्यारे थे कि उसने किसी का सुख देखा नहीं जाता। मालती जोशी के द्वारा यथार्थ का पलड़ा पकड़ने से ‘गोपनीय’ उपन्यास की की सारी घटनाएँ गोपनीय नहीं रहीं। ‘गोपनीय’ उपन्यास में पिता के लव मैज की बात खुल जाने से लड़की की द्वार पर आयी हुई बारात लौट जाती है और उसकी चचेरी बहन के साथ उस दूल्हे की शादी हो जाती है। चचेरी बहन के बालक के जन्म दिवस पर बधाई गाते हुए एर दुबारा मेहंदी लगाते हुए उस नायिका को कैसा लगता है का मनोवैज्ञानिक चित्रण इस उपन्यास में किया है।

“ऋणानुबंध” उपन्यास में एक मध्यवर्गीय परिवार में टूटते और बिखरते संबंधों का चित्र है। राज खुलने तक के चेहरे और राज खुलने के बाद के चेहरेइनका अन्तर बड़ी सूक्ष्मता से, मालती जोशी ने चित्रित किया है। इस में भी एक कुँवारी माँ की कहानी है परन्तु उसे मरते दम तक नायिका ने संभाला है। नारी ही नारी की दुश्मन नहीं होती यह सिद्ध कर दिया है। एक बेडौल मांसपिंड दो भावहीन आँखोंवाला अनचाहा बालक मरता नहीं अपितु अपने से संबंधित सब की जिन्दगी बरबाद कर देता है। इस उपन्यास में परनारी को बच्चे सहित जब घर से - पति निकालना चाहते हैं तब माँ पिता के विरोध में खड़ी होती है। उसने अपने पति की ‘रंग-पर उस बेकसूर नारी को बुढापे में सड़क पर फेंकने के लिए वह तैयार नहीं, रेलियों को जाना था थी। ऐसे चरित्र जिन्दगी में बहुत कम मिलते हैं। ‘चाँद अमावस का’ उपन्यास में एकतरफा प्यार की प्यास है। ‘समर्पण का सुख’ दाम्पत्य जीवन पर आधारित उपन्यास है। यह एक ऐसी युवती की कथा है जो बाल्यावस्था में पारिवारिक दायित्व धारण करने से प्रौढ़ बन गयी है।

“समर्पण का सुख” नारी को तभी मिलता है जब वह यह भूल जाती है कि वह एमहै और उसका पति सिर्फ मैट्रिक। नायक का रंग गोरा है किन्तु मैट्रि.एड.बी.ए.क पास एक दुकानदार है। नायिका काली है परन्तु एमहै और नौकरी करती है। परन्तु एक दूसरे .एड.बी.ए. के प्रति समर्पण का भाव होने से वे सुखी है। “विश्वासगाथा-” उपन्यास अंधविश्वास का खण्डन -



करने के उद्देश्य से लिखा गया है। मालती जोशी इस रचना के माध्यम से कहना चाहती है कि आस्था नहीं होती तो वह आशंकाओं से घिर जाता है। आस्था होती तो -व्यक्ति में यदि जीवन दृष्टि प-आलम्बन होता। आलम्बन को जागृत करना है। यही शक्ति-वृत्तियों से मुकाबला करने में काम आती है। "परिणय", "सहमे हुए प्रश्न और "सहचारणी" उपन्यासों में दाम्पत्य-मानवीय संबंधों को नये सिरे से व्याख्यायित करने की, जीवन पर विभिन्न प्रभावों को दर्शाने कोशिश की गयी है। 'समर्पण का सुख' उपन्यास सुखी पारिवारिक जीवन का आधार सफल दांपत्य एवं पतिपत्नी के मध्य विशेष एवं अनुराग को मानता है। प्रेम और विवाह के समस्या - पर आधारित उपन्यास 'मन न भये दस दिस' में लेखिका ने उपयुक्त वर के चयन में द्वंद्वग्रस्त विवाह वय प्राप्त युवती की मानसिकता को सफलता पूर्वक चित्रित किया है।

मालती जोशी ने समकालीन सामाजिक परिवेश-नारी की विद्रोह, नारी जीवन की संवेदना, मन को अपने उपन्यासों के माध्यम से स्वर दिया है। उन्होंने अपनी कृतियों -भावना और नारी जीवन की -में नारी जीवन के आंतरिक और बाह्य जगत का चित्रण किया है। मध्यवर्गीय नारी समस्याओं का इन उपन्यासों में बड़े विस्तार के साथ वर्णन किया गया है।

"निष्कासन", "पाषाण युग", "चाँद अमावस का" और "रागविराग-" उपन्यासों में नारी-अकेलेपन की समस्या को चित्रित किया है। कलंकित नारी की समस्या को उन्होंने "ऋणानुबंध" की मंदा, "सहचारिणी की" नीलम और "रागविराग-" की कल्याणी के माध्यम से मालती जोशी ने पुरुष द्वारा शोषित नारी का चित्रण बड़ी कुशलता के साथ प्रस्तुत किया है। इन उपन्यासों में काम काजी नारी की समस्याओं का भी अंकन किया गया है।-"रागविराग-" की कल्याणी, "निष्कासन" की मिसेज नरेन्द्र, "सहचारिणी की नीलम" आदि त्रस्त नायिकाएँ हैं। "निष्कासन" में किशोर मनोविज्ञान के आधार पर विभिन्न समस्याओं को अंकित किया गया है। दहेज की समस्या से जुड़े हुए पहलुओं पर "विश्वासगाथा-" उपन्यास में प्रकाश डाला गया है। मालती जोशी ने अपने उपन्यासों में पुरुषलोलु-वर्ग की धन-पता के कई पहलुओं को गहराई से जानकर उन्हें प्रस्तुत करने का अनूठा प्रयास किया है। इन उपन्यासों में अनुभूतियों की प्रामाणिक अभिव्यक्ति हुयी है। समकालीन सामाजिक परिवेश और मध्यवर्गीय जीवनशैली की व्यंजना की -दृष्टि से मालती जोशी ने हिन्दी उपन्यास साहित्य को समृद्ध किया है एक नयी दृष्टि दी है और, उसे विकास के नये आयाम प्रदान किए। मालती जोशी ने समसामयिक परिवेश को अपने उपन्यासों के माध्यम से यथार्थ रूप में प्रस्तुत किया है। उनका विशेष आग्रह सामाजिक प्रतिष्ठा

एवं मूल्यों के आधार पर मानव जीवन का महत्व एवं उसकेद्वारा पारिवारिक एवं सामाजिक विकास को दर्शाना है। इन उपन्यासों में युगीन सामाजिक एवं राजनीतिक परिवेश का भी व्यापक अंकन हुआ है। मध्यवर्गीय नारी के विविध रूपोंविभिन्न समस्याओं और उसकी विभिन्न, अवस्थाओं का उपन्यासकार मालती जोशी ने सविस्तार चित्रण किया है। सामाजिक - नैतिक मूल्यों को मालती जोशी ने ललकारा है और व्यक्ति के जीवन के दोनों पक्षों - सामाजिक और



व्यक्तिगत में से व्यक्तिगत स्तरपर स्वतंत्रता पूर्वक जीने की व्यक्ति की कामना का समर्थन किया है।

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## OUTCOME OF VOICE REHABILITATION IN A CORDECTOMY PATIENT

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### ABSTRACT

Cordectomy is removal of the vocal fold, often for the aim of treating Laryngeal Cancer. Type-III cordectomy is performed by cutting through the vocalis muscle. It has been advised to start early voice therapy to guide acquisition of good phonatory control and to prevent ankylosis of arytenoids

A patient of 69 years male had the complaint of voice problem. He had huskiness in voice and less phonation. He had undergone type III cordectomy on left side for carcinoma-in-situ (CIS). In the clinical department after all perceptual and objective voice assessment, he was diagnosed with severe hoarse voice secondary to Type-III cordectomy. Voice therapy started with the goal to facilitate age and sex appropriate socially accepted voice quality. Several suitable voice therapy approaches were applied like laryngeal manual therapy (LMT); semi-occluded vocal tract (SOVT), Lax Vox and chewing. After 11 sessions of therapy and home based practice, the patient was improved significantly but not completely recovered. Post therapy diagnosis was mild hoarse voice.

Voice quality in patients after laser cordectomy especially after excision of epithelium, reinke's space, vocal ligament and vocalis muscle or more indicates to the increase in jitter, shimmer, fundamental frequency as compared to healthy controls. Voice therapy especially direct muscular relaxations help to accelerate regeneration of tissue after cordectomy, hence overall improvement in voice quality.

**Key Words:**Cordectomy, Voice Therapy, Vocal folds, Laryngeal manual therapy, Semi-occluded vocal tract, Lax Vox.

### INTRODUCTION

Cordectomy is the surgical removal of a cord. It usually refers to removal of the vocal fold, often for the aim of treating Laryngeal Cancer. It can be carried out by traditional surgical techniques or increasingly by Carbon Dioxide Laser. Type-III (Transmuscular) cordectomy is performed by cutting through the vocalis muscle.

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The resection encompasses the epithelium, lamina propria and part of the vocalis muscle. The resection may extend from the vocal process to the anterior commissure. Cordectomy present a variable degree of dysphonia depending upon the type of glottic dissection, scarring and the resulting glottic insufficiency. It has been advised to start early voice therapy to guide acquisition of good phonatory control and to prevent ankylosis of arytenoids.<sup>[1]</sup>This study was aimed to document the effectiveness of suitable voice therapy techniques and exercises in tissue-healing of a cordectomized patient and to improve overall voice quality.

## METHODOLOGY

### Case report:

A patient of 69 years male visited diagnostic department of AYJNISHD, RC, Kolkata with the complaint of voice problem. He was not able to sustain his voice for long time and felt huskiness in his voice. The patient had disturbances in voice since 2018. He was a teacher by profession and also had history of vocal abuse during lecture. He also had history of smoking till 2014. Video laryngostroboscopy was done on 2019 which showed broad based proliferative mass sitting on superior surface of left vocal fold with complete loss of mucosal waves and also features of severe laryngopharyngeal reflux disease (LPRD) and muscle tension dysphonia (MTD). After one month laser assisted type III cordectomy was done on left side for carcinoma-in-situ (CIS). Post operative Histopathological Examination (HPE) showed mild to severe dysplasia. Fiberoptic *laryngoscopy* (FOL) Impression revealed edematous left vocal fold with mild phonatory gap. The client was under medications. The severity of the voice problem varied while taking the budectort.

The patient had very short phonation duration (3-4 seconds). Perceptual voice assessment GRBAS scale showed G3R3B2A3S2. Instrumental voice assessment using Dr. Speech (version-4) revealed severe hoarse voice (data showed in table-1). Quality of life related Voice Handicapped Index (VHI) score-41, indicated severe problem. Finally the patient was diagnosed with severe hoarse voice secondary to Type-III Cordectomy and the patient was referred for voice therapy in therapy department.



<b>Parameters</b>	<b>Values</b>
Habitual Fo(Hz)	132.36
Jitter(%)	1.12
Shimmer(%)	8.07
Fo Tremor(Hz)	3.92
Mean Fo (Hz)	133.29
SD Fo (Hz)	3.21
Max Fo (Hz)	141.35
Min Fo (Hz)	124.23
NNE(dB)	-2.01
HNR(dB)	8.19
SNR(dB)	8.11
Amp Tremor(Hz)	2.90
Ratio(%)	28.00
Hoarse	3
Harsh	3
Breathy	3

Voice therapy was started with the long-term goal to facilitate age and sex appropriate socially accepted voice quality. Therapy had short-term goal to reduce hoarseness of voice and to reduce muscle tension through active tissue healing. The therapy was provided twice a week for the duration of 40 minutes in clinic, and practice sessions were carried over at home. Different voice therapy approaches like laryngeal manual therapy (LMT); semi-occluded vocal tract (SOVT): Straw phonation, bilabial occlusion, lip trill, voiced fricatives, tongue trill, humming; Lax Vox and chewing were used.

In LMT, The clinician used the pads of the index, second and third finger of both hands and started stretching on Sternocleidomastoid muscle. The clinician worked from lesser tensed area to achieve a reduction in the overall muscle tension most rapidly. As the massage was progressed along the length of the SCM, the clinician started to feel the muscle to change gradually from being relaxed and cord like to be much softer. Then the clinician kneaded the supra laryngeal area using his dominant hand, the other hand

cradled the patient's occiput to avoid backward head movement. After working in the midline, kneading was carried out from a more lateral position on mandible towards larynx. As tension was reduced in supra laryngeal area, pressure increased through finger tips beyond the border of mandible. First two steps were repeated until the clinician felt maximum reduction in muscle tension. The patient was asked to count numbers while applying lateral digital pressure on the larynx until relaxation of laryngeal musculature was achieved. Steps are shown in figure 1.

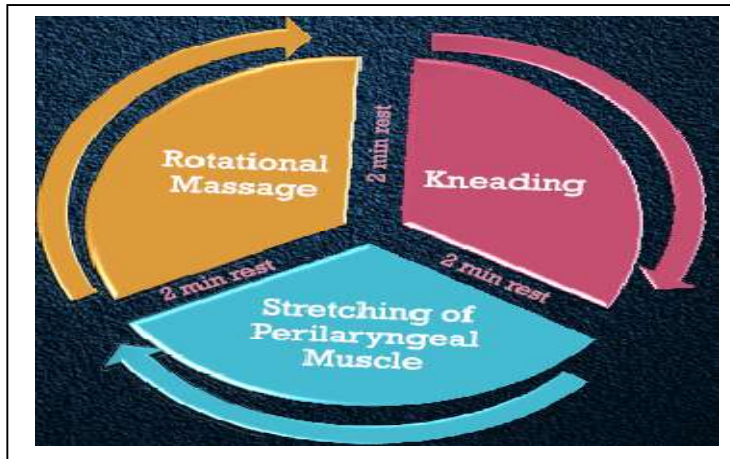


Figure 1: laryngeal manual therapy (original Image)

To reduce laryngeal muscle tension chewing technique was used. In this technique both clinician and patient faced towards the mirror. Clinician demonstrated the exaggerated chewing first and then patient was asked to imitate. Then he was asked to do humming sound during chewing.

To reduce hoarseness and muscle tension through active tissue healing LAX VOX voice therapy technique was used, which targeted to elongate contact length of vocal cord. The patient was instructed to have a good posture (Ideal for both breathing and laryngeal functions). Then the tube (1-2 cm of diameter) was placed into the mouth between the incisor teeth and above the tongue. Other opening of tube was dipped into the water 1 to 2 mm at the beginning and gradually the depth was increased to 4-7mm. Then the patient was instructed to bubble in the water with voice /hu/ and repeats it for 10 times with inhalation each time. During advance stage of Lax Vox, the patient was instructed to initiate the bubble making in water with voice in pitch gliding manner. There after the exercise was done without water.

SOVT was also used to reduce Hoarseness. SOVT has several modules like Straw phonation, bilabial occlusion, lip trill, voiced fricatives, tongue trill, and humming. During straw phonation the clinician chose a 3 mm straw and the patient was instructed to hold the straw in mouth by proper lip sealing. Then he was instructed to produce voice as act of singing with the straw in varying loudness. In bilabial occlusion patient was demonstrated to blow through the lips instead of the straw. In lip trill, patient was asked to sit relax and asked him to do lips flapping together as phonate and release air.



In voiced fricatives technique clinician chose few voiced fricatives such as /z/, /bh/ and /th/ and asked the patient to sustain each sound with phonation for a while. These sounds help to position the vocal tract and the articulators in different ways and resist air at slightly different rates. In tongue trill, the patient was asked to produce /r/ sound by rolling the tongue inside the mouth just behind the alveolar ridge. Lastly during humming technique, patient was asked to seal the lips together and so that no sound escape from the mouth and asked to produce /hmmm/ noise.

After 11 sessions of therapy and home based practice, the patient was improved significantly but not completely recovered. Perceptual voice assessment GRBAS scale showed G1R2B2A1S1. Objective voice assessment using Dr. Speech software revealed mild hoarse voice (shown in table 2). VHI score was 20, indicated mild problem.

<b>Parameters</b>	<b>Values</b>
Habitual Fo(Hz)	133.66
Jitter(%)	1.43
Shimmer(%)	7.94
Fo Tremor(Hz)	2.11
Mean Fo (Hz)	132.98
SD Fo (Hz)	3.94
Max Fo (Hz)	140.00
Min Fo (Hz)	120.49
NNE(dB)	-0.76
HNR(dB)	11.87
SNR(dB)	10.88
Amp Tremor(Hz)	211
Ratio(%)	35.00
Hoarse	1
Harsh	0
Breathy	2



## DISCUSSION

Managing patient with cordectomy is rather a tricky one. It is for to delicate balance between airway and phonation. Various authors provided several points of views regarding the outcome of voice after cordectomy surgery because as per literature, voice outcome of a patient has been directly co-related with amount of tissue resection. Vilaseca et al. said patients treated with laser cordectomy cannot expect to have an objectively normal voice. In case of type II-III cordectomy, the success rate decreases in less than 55% to achieve near normal voice. Excision of wide part of vocalis muscle leads to persistent dysphonia in one third of the patient. Only quarters have subjectively near normal voice.<sup>[2]</sup>

Voice quality in this patient after laser cordectomy especially after excision of epithelium, reinke's space, vocal ligament and vocalis muscle or more indicates to the increase in jitter, shimmer, fundamental frequency as compared to healthy controls. Fundamental frequency rises due to increasing tension in vocal folds, increasing subglottic pressure and decrease the vibratory mass that is due to the loss of tissue. Hyaluronic acid is important in tissue healing and alteration of mucosal wave especially case of wounded vocal fold after surgery. Laryngeal manual therapy or active muscular tension reduction can improvise testosterone in male and which may be a solution for the muscle relaxation and active tissue healing.<sup>[3]</sup>

## CONCLUSION

Voice therapy especially direct muscular relaxations help to accelerate regeneration of tissue after cordectomy, hence overall improvement in voice quality. The voice quality after laser cordectomy is still a controversial issue; we analyzed the perceptual and acoustic vocal outcome of a glottic carcinoma laser treated patient in a variety of voice producing situations.

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## COVID-19 AND MENTAL HEALTH IN COMMUNICATION

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### **Abstract:**

The whole universe from the sun to the smallest atom is controlled by law. there's perfect order everywhere. The sun performs his duties quite regularly. the celebs and planets revolve in an orderly manner. they're governed by laws. There are laws within the mental plane. There are laws of physics, of astronomy, of mathematics and also includes laws of health and hygiene which govern our own being. within the vast universe man alone is that the breaker of laws and thus the violator of rules. he's the sole example of lawlessness and discord. He wilfully disregards the laws of health, leads a lifetime of dissipation and thus the wonders why he suffers from diseases and disharmony. He deliberates ignores the principles of hygiene and right living complete health then weeps when he's ailing from an incurable malady. This paper examines the COVID 19 Pandemic situation and thus the role of communication in India in multi-dimensional perspective.

**Key words:** Health, Hygiene, Meditation,Communication,COVID-19 Pandemic, Mental State

### **INTRODUCTION**

Fear, worry and stress are normal responses to perceived or real threats especially once we face with uncertainty or the unknown. So it's normal and understandable that people are experiencing fear within the context of the COVID 19 Pandemic.<sup>3</sup> Added to the fear of contracting the virus during an epidemic like Covid-19 there are significant changes to our lifestyle as our movements are restricted in support of efforts to contain and hamper the spread of virus. India has faced the new realities like working from home, temporary unemployment, home schooling of kids and lack of physical contact with other relations, friends, colleagues, it is vital that we glance after our mental also as our physical health.

### **MENTAL HEALTH:**

WHO, in conjunction with partners is providing guidance and advice during the covid-19 pandemic for doctors, managers of health facilities, folks that are taking care of youngsters, adults, people in isolation and members of the overall public more generally to help people lookout of their mental state. "Good mental state is totally fundamental to overall health and well-being" said Dr.Tedros Adhanom Ghebreyesus, Director-General of the WHO. "Covid-19 has disturbed essential mental state services all over the world just one occasion they're needed most. World leaders must move fast and decisively invest more in life saving mental state programmes - during the pandemic and beyond"<sup>3</sup>

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WHO has issued guidance to countries on the because of maintain essential services- during COVID-19 and recommends that countries allocate resources to mental state as an integral component of their response and recovery plans. The organisation also urges countries to observe changes and disruptions in services so as that they're going to address them as required.

Globally, we all have had to quickly adapt to living with an invisible enemy and trying to understand the because of defend ourselves through altered lifestyles and altered daily habits. We even have had to face a “psychological pandemic,” which has caused an “internal explosion” of negative emotions: fear of dying and fear of staying home alone with none familiar/social contact. COVID-19 has changed the lifestyles of every person within the earth. We all became misfits; we've lost our habits completely and have had to make new ones. This might cause feeling more vulnerable and fewer tolerant of stress, which can end in less inhibitory control, dysfunctional communication, and inadequate coping strategies.

In fact, anxiety and depression symptoms have increased in prevalence and frequency, increasing risk of panic attacks and suicidality, especially in people with chronic mental state conditions. But few patients with mental disorders have access to psychiatric services or emergency departments.

Because the pandemic has perpetuated an depression, unemployment rates will rise substantially and weakened welfare safety nets will further threaten public health and Social Security COVID-19 pandemic has changed mental state disease management therein patients aren't able to leave of their home and can't easily access mental state services. Consequently, during this pandemic, there is a growing need for tele counselling and telepsychiatry.<sup>14</sup>

Tele counselling refers to any quite psychological service performed over the online, including emails, chat rooms, and web cameras. It ranges from individual, couple, and group psychotherapy, with qualified therapists providing psychological care to oldsters that need it. In February 2018, the American Psychiatry Association (APA) updated its Policy on telepsychiatry, stating that telemedicine in psychiatry, using video conferencing, could even be a legitimate and effective practice of medicine that increases access to stress. In fact, the APA “supports the use of telemedicine as a legitimate component of a mental state delivery system to the extent that its use is for the advantage of the patient, protects patient autonomy, confidentiality, and privacy; and when used consistent with APA policies on medical ethics and applicable governing law.” In such a critical period, these validated tools should be utilized globally.<sup>14</sup>

During a plague, timely and accurate information play a critical role in controlling the spread of illness and managing fear and uncertainty. Knowing what to undertake to tohelps people feel safer and enhances the thought that they're going to take meaningful steps to protect themselves.

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### Recommendations:

During an disease outbreak, the recommendations below are helpful for patients and their families:

**Stay informed:** Obtain current information about the outbreak from trusted sources, slightly a touch just like the Centres for Disease Control and Prevention at [www.cdc.gov](http://www.cdc.gov) and thus the earth Health Organization at [www.who.int](http://www.who.int).

**Educate:** Follow and share basic information about hygiene to reduce spread of illness, like hand washing and cough etiquette.

**Limit media exposure:** Use media enough to make informed decisions, then turn it off.<sup>15</sup>

**Anticipate and address stress reactions:** confine mind that it's normal to feel stress in reaction to an disease outbreak and remember of signs of stress. Take steps to attenuate and address stress, like keeping normal routines, participating in enjoyable activities, that consider positive aspects of your life and things that you simply can control; seeking support from friends and family; and interesting in stress reduction techniques and physical activity.

**Meet basic needs:** Eat, hydrate, and sleep regularly to optimize the of health fitness.

**Take breaks:** Rest and relaxing activities can provide a helpful distraction.

**Stay connected:** Giving and receiving support from family, friends, and colleagues can reduce feelings of isolation.

**Stay updated:** believe trusted sources of knowledge. Participate in work meetings where relevant information is provided.

The extreme stress, uncertainty, and sometimes difficult medical nature of worldwide disease outbreaks, like Coronavirus (COVID-19), require special attention. Taking care of oneself and galvanizing others to practice self-care sustains the facility to stress for those in need.<sup>3</sup>

### For Children:

Children's need for honest information about changes within their family; when this is often absent they decide to add from things on their own. Consideration of children's developmental stage helps to make communication simpler. Communication with young children shouldn't just believe simplifying language or concepts, but take into account children's comprehension of illness and causality. Research shows that sensitive and effective communication about life threatening illness has major benefits for teenagers and their family's long-term psychological wellbeing.<sup>12</sup>





It is unconscionable to ignore the immediate and longer-term psychological impact of this global situation, especially for teenagers and youngsters who account for 42% of our world's population.

Parents would do anything to protect their children from distress and consequently may avoid talking about difficult feelings and events. However, research shows that even very young children are aware of things changing around them which their understanding evolves throughout childhood and adolescence.

Adults' preoccupation with the financial, practical and emotional impact of COVID-19 may compromise their ability to sensitively recognise and answer signs of children's worries and distress. Adults need to provide a model of sharing quite their worries, without overwhelming children with their own distress.<sup>12</sup>

Prioritising effective communication with children about COVID-19 could even be an important component of a universal, community-led response to the pandemic to protect the intermediate and long-term psychological wellbeing of kids.

In this rapidly changing situation, media and social conversations are entirely dominated by the coronavirus and kids are being exposed to large amounts of knowledge and high levels of stress and anxiety within the adults around them. This is often occurring at a time when children are also experiencing significant changes to their daily routine, and acquire in-tuned with friends and grandparents, which are often key to children's resilience.<sup>6</sup>

### **CONCLUSION:**

By drinking pure water, by eating pure and wholesome food, by observing carefully the laws of health and hygiene, by taking regular exercise and cold bath within the morning, by practicing Japa and Meditation, by right living, right thinking, right action, right conduct, by observing Brahmacharya, by living in outdoors and sunshine for few hours daily one can have wonderful health vigour and vitality which is that the gift of yoga. Thus we'll attain physical and mental efficiency through yoga which destroys all weaknesses by regular practice of it. One can attain development of body, mind, intellect and soul by regular practice of yoga.

Health is thy birth right but not disease. Strength is thy heritage but not weakness. Efficiency but not inefficiency, courage but not fear, bliss but not sorrow, peace but not restlessness, knowledge but not ignorance, immortality but not mortality.<sup>13</sup> With attainment of this birth right or divine heritage one can shine as a completely developed individual radiating joy, peace, bliss and knowledge everywhere. By adapting the advantages of the above mentioned effective communication methodologies to a minimum of 1 and each one during the Covid-19 pandemic, which may also work as a social framework in creating and establishing a vibrant society.

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## AN OVERVIEW OF THE EFFECTS OF MENTAL PSYCHOLOGICAL STATES OF MIND ON HUMAN WORK-EFFICIENCY IN AN ORGANIZATION

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### **Abstract:**

This paper is all about the behavior and efficiency of an individual at work place because of different psychological states of an individual . What psychology is? Psychology is defined as a science which studies mental processes, experiences and behavior in different contexts. In doing so, it uses methods of biological and social sciences to obtain data systematically. It makes sense of the data so that it can be organized as knowledge. The most common state of minds are Rational. Anxious, Depressed, Angry, Fear, Rebellious<sup>[1]</sup>. Each and every state has its own effect on individual's behavior in his/her organization, which on the contrary will show different level of efficiency related to an individual.

Though it is also a fact that a mental state of an individual may not be his/her permanent mental state. There could be so many reasons for the particular mental state of an individual at a particular time instant or at a particular place viz., Family tensions, Stress of work at workplace, Workplace working Environment, Self Zeal to work, Understanding matching with Colleagues ,Resources availability to perform the assigned work at the workplace, management policies , weather condition etc.

There are too many factors to affect the individual behavior and efficiency at workplace, the factors may be personal , professional or related to workplace conditions etc.Though these factors may be overcome either by the individual itself or by workplace top management. The most responsible factor for negative workplace performance of an individual is the workplace factors.

### **Introduction :**

What psychology is? Psychology is defined as a science which studies mental processes, experiences and behavior in different contexts. In doing so, it uses methods of biological and social sciences to obtain data systematically. It makes sense of the data so that it can be organized as knowledge. The most common state of minds are Rational. Anxious, Depressed, Angry, Fear, Rebellious<sup>[1]</sup>. Each and every state has its own effect on individual's behavior in his/her organization, which on the contrary will show different level of efficiency related to an individual.

Any individual wants to give/deliver his/her best performance to his/her work. Also the same person tries to achieve his/her maximum efficiency so that the defined goal/output

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can be achieve. But besides having such positive zeal he/she may not be able to achieve its desired efficiency. A lot of factors viz., personal, professional and workplace affects his/her capability to reduce an individuals working efficiency.

Now the question arises here that in such conditions, what an individual should to retain his/her working efficiency ? The further study will discuss the factors and the remedies of such problems regarding an individual.

### **Literature Review :**

As such no literature review is done by the author of this paper because this paper has been written on the basis the personal experiences , perceptions and adaptability of the different working condition of the author himself.

Though this paper may motivate other researchers to rework on this paper by doing a predefined literature survey. Also the author of this paper will give too many future scope to work on this paper. As the paper is based on the personal experiences and personal perceptions so in this regards the paper does not need any literature review but if in any case any reference taken the same will be there in the reference section of this paper .

### **Methodology :**

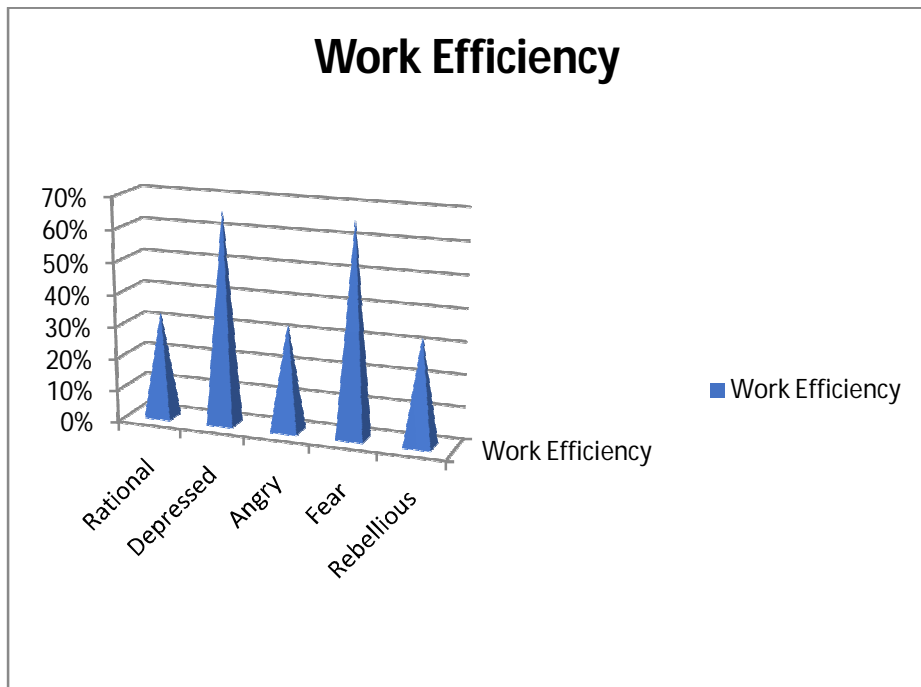
The methodology used in this paper is neither a mathematical procedure nor any simulation technique, but the paper is designed on the data based on real ,personal experiences of the author.

Well for discussion the method used is the recording of emotional data in the form of statements under different mental states of the author and under different working circumstances. The recorded statements were deeply analyzed again and again to confirm the purity of the research paper. Though the results will be vary from individual to individual as every individual has his/her level of perception ,behavior and ability to react for a particular situation

### **Observations :**

The author of this research paper finds too many behavioral changes in himself under different mental – psychological states ,under different working conditions at the work place and also realize the changes in efficiency to accomplish a task. The Table and chart will show the effect of different negative attributes which are the results of disturb mind setup of the Worker/Author.

	Mental Psychological states	Effect on Work efficiency	Work Quality	In %	Possible reason"s
1	Rational	Low	Satisfactory	33%	Burden,No work recognition,Biassing ,unfavourable HR policies
2	Depressed	moderate	Poor	66%	
3	Angry	Low	Poor	33%	
4	Fear	moderate	Satisfactory	66%	
5	Rebellious	Low	Poor	33%	

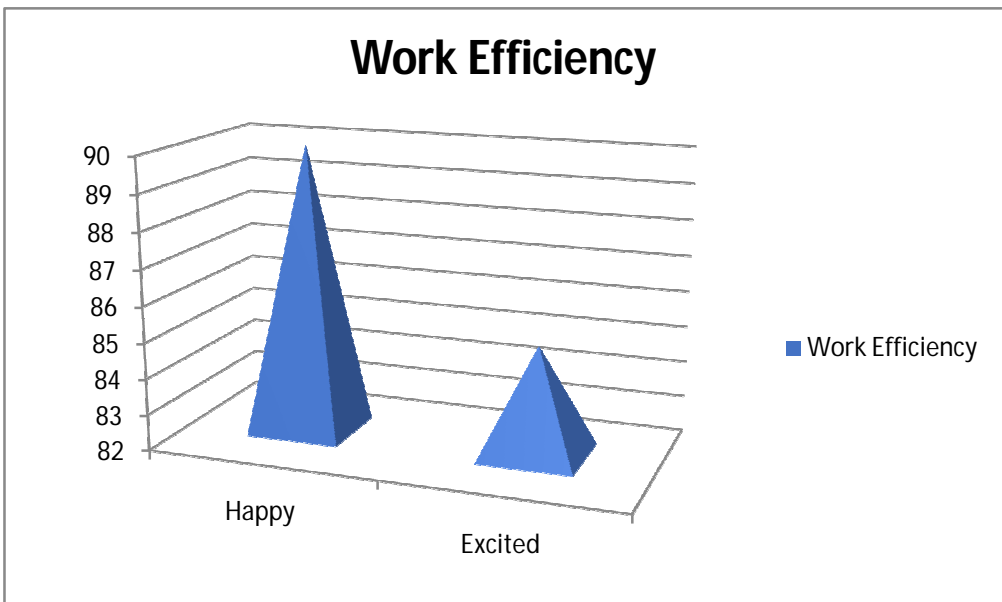


**Graph 1.1**

Table 1.1 shows the table with data related to different mental-psychological states in the form of work efficiency, work quality and percentage(%) efficiency. Also the Graph 1.1 represents the table data in graphical form .

Though these negative aspects of the mind reduce the work efficiency but the other happier aspects help in improving the work efficiency of the worker viz., Happy, Excited, High Enthusiasm Etc .The table 1.2 below will show how the happier aspects the work efficiency.

Table 1.2					
	Mental - Psychological states	effect on Work efficiency	Work Quality	In %	Possible reason"s
1	Happy	High	Good	99%	No Burden, Workreco gnition, No biassing ,Favourable HR policies
2	Excited	moderate	V.Good	85%	



Graph 1.2

Table 1.2 shows that when maximum things goes in the favour then the mental psychological state of the author will change to the positive side also it greatly effect the work efficiency of the author.

The graph 1.2 shows the table 1.2 data in graphical form.



**Conclusion :**

The conclusion of this paper is very simple that when the working conditions or working environment at the work place are favorable to the workers then the work efficiency will increase for about 30% or may be more in many cases.

But when it is happened that the working conditions and working environment are not in favour of the workers then the efficiency of work will decrease. Also in turn the work efficiency decreases the work quality and vice – versa.

So in order to achieve the highest worker efficiency and quality work output the workplace environment should be favourable to workers as much as possible.

**Reference :**

<https://www.psychologytoday.com/us/blog/fixing-families/201410/whats-your-state-mind>



## PROBIOTICS-A NOVEL ADJUNCTIVE IN PERIODONTICS: A REVIEW

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### ABSTRACT

Widespread use of antibiotics has given resistance in the subgingival microbiota of adult periodontitis patients. Researchers have come across the development in various fields of healthcare to develop alternative antimicrobial approaches. The application of 'health-promoting' bacteria fulfilling purposes of therapy is one of the strongest emerging field in this regard. The use of probiotics is specifically to improve oral health, and widespread use of oral intake of probiotics as preventive and therapeutic products for gastrointestinal health makes it of considerable interest for oral healthcare workers. The purpose of this review is to update such information based on the use of probiotics to control periodontal diseases, treatment, and management of certain oral diseases and the of developing designer probiotics for the next generation of oral healthcare and explores the potential of probiotics as a novel treatment strategy.

**Keywords:** microbiota, probiotic, prebiotic, periodontal disease

### INTRODUCTION

The oral care products such as antimicrobial, antiplaque agents, represent a significant compound for mechanical plaque control. For decades mechanical methods for subgingival debridement such as thorough scaling & root planing and oral hygiene procedures serve as a gold standard of periodontal therapy.<sup>1</sup> Regarding the elimination of pathogenic bacteria of the oral cavity. All these procedures should preferably reduce oral biofilm formation but without affecting the biological equilibrium within the oral cavity. Probiotics can inhibit approx.1000 different species of bacteria at  $10^8$ - $10^9$  bacteria per mg dental plaque or mL saliva.<sup>2</sup> There is increasing resistance to antibiotics and the need for more 'natural' therapies, to minimize antibiotic use and develop novel treatments for oral diseases.<sup>3</sup> Preventive approaches based upon the restoration of the microbial ecological balance, rather than elimination of the disease-associated species, have been proposed.<sup>4</sup>Therefore aim of present review is to update use of probiotics in controlling the periodontal disease treatment and management of certain oral diseases and advances in probiotics.

**Probiotics** - The term 'probiotic' means 'for life' and it is currently referred to as a microbiota that is associated with effects on humans and animals.





The term "probiotics", was introduced in 1965 by Lilly & Stillwell as substances produced by microbes which promote the growth of other microorganisms.<sup>5</sup> Concept of probiotics by Elie Metchnikoff in his book "prolongation of life"(1907) in early years of the 20th century working at the Pasteur Institute in Paris, who laid down the scientific foundations of probiotics. The First probiotic species to be introduced in research was Lactobacillus. Elie Metchnikoff proposed a diet containing milk fermented by lactobacilli, which produces large amounts of lactic acid that could increase the life span of humans. Currently adopted definition "Live microorganisms which when administered in adequate amounts confer a health benefit on the host" (FAO /WHO in 2001).<sup>6</sup> Probiotics are referred to as live active microorganisms that when administered in adequate amount will have beneficial effects to its host which are more fragile, vulnerable to heat and maybe killed over time.

**Prebiotic** – It is the non-digestible food ingredient that gives benefits to the host by selectively stimulating the growth and activity of a single bacterium or a group of bacteria in the colon, hence help to improve the host health. The term prebiotic was introduced by Gibson in 1995.<sup>7</sup> It includes inulin, fructooligosaccharides, galactooligosaccharides, and Lactulose. Prebiotics are defined as a nonliving non-digestible special form of fiber or carbohydrates.<sup>8</sup> The powder form of prebiotics can survive heat, cold, acid.

**Synbiotic**- The term synbiotic is a term known to be used when a product contains both probiotics and prebiotics. The concept of synbiotic has been proposed to characterize the combination of suitable probiotics and prebiotics that drastically improves the activity of the probiotic microorganism. For example, synbiotic is a combination of a FOS and a Bifidobacterium strain with Lactobacillus strains which enhanced food supplements used as functional food ingredients in humans.<sup>7</sup>

#### **SOURCE CONTAINING PROBIOTICS**

They are defined in a term as 'medical probiotics' (microbial preparation) and 'other probiotics '(functional food), probiotics are provided in products in one of four basic ways:

It is a culture concentrate added to a beverage (such as fruit juice),

It has been inoculated into prebiotic fibers,

It has been used in milk-based food such as raw milk, yogurt, cheese, kefir, drink.

Dietary supplements such as non-dairy products such as powder, capsule, gelatin tablets, Milk, Soya milk, Tofu.<sup>9</sup>

#### **Probiotics are broadly classified:**

**Lactobacillus species:** It enhances innate and acquired immunity, inhibit pro-inflammatory mediators, production of enzymes to digest and metabolize proteins and carbohydrates, and synthesis of vitamins like vit. K, vit.B and facilitates the breakdown of bile salts.

e.g. L acidophilus, L. casei, L. crispatus, L. delbrueckii subsp., L. fermentum, L. gasseri, L. johnsonii, L. paracasei, L. plantarum, L. reuteri, L. rhamnosus.<sup>5</sup>

**Bifidobacterium species:** Metabolization of lactose, generate lactic ions from lactic acid, ferment indigestible carbohydrates and produce beneficial short-chain fatty acids.

e.g. B. bifidum, B. breve, B. Infantis, B. longum, B. lactis, B. adolescentis.<sup>5</sup>

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**Others:** Lactococcus lactis subsp. cremoris, Enterococcus faecium, S. diacetylactis, Streptococcus salivarius subsp. thermophilus, S. Intermedius, Yeasts, and moulds (Saccharomyces boulardii, Aspergillus niger). Lactobacillus bulgaricus and Streptococcus thermophilus: metabolize lactoses, improve lactose tolerance, and antimicrobial activity. Saccharomyces boulardii: secrete proteases and other substances that lead to the breakdown of bacterial enterotoxins and inhibition of binding of intestinal receptors. Also, help in immune function enhancement.

#### **MECHANISM OF ACTION -**

**1.Direct interaction:** Involving in the binding of oral micro-organisms to proteins (biofilm formation). Probiotics interact directly with the disease-causing micro-organism, making it harder for them to cause any disease. They are Involved in the Production of antimicrobial substances against periodontal pathogens. Production of chemicals that inhibits oral bacteria.

**2.Competitive elimination:** Favorable micro-organisms participate in causing illness, increasing microscopic organisms for nourishment creating the bond leads to action on plaque formation & its complex ecosystem by competing as well as intervening with bacteria attachments.

**3.Indirect effects (Modulation of host immune response):** Probiotics interact with and strengthen the immune system and help prevent disease. It motivates dendritic cells ensuing in the manifestation of helper T cell (Th1) reaction, which controls immunity. Modulation of host defenses includes the innate as well as the acquired immune system. Regulating of mucosal permeability. Modulate pathogen-induced inflammation through "toll-like receptors"(TLR) on dendritic cells. Modulate host immunity both systemically and locally. Stimulate dendritic cells (antigen-presenting cells). Expression of Th1 and Th2 -Th1 response: Phagocytose intracellular pathogens, Th2 response: Extracellular pathogens.<sup>10</sup>

#### **Probiotics Compete Against Resistant Bacteria--**

A. Outnumbering the pathogens

B. Direct Competition: One on one combat by Probiotics is the use of enzymes to inhibit the growth of pathogens.

C. Biodegradation: Probiotics have bacteria that can digest all the food substances, carbohydrates, proteins, fats, and fiber. There is the conversion of food into lactic acid by the beneficial bacteria which is helpful for good health.

D. Lowering the pH: Lowering the pH eliminates most of the food pathogens.

E. Antioxidants: Antioxidants breakdown mineral deposits so that they become water-soluble. In the case of dental plaque, calcium carbonate is broken down into water-soluble calcium bicarbonate. Dental stains are due to oxidation of both the compounds organic and inorganic. Antioxidants are best to remove the stains and prevent the new stains from forming.<sup>9</sup>

#### **Criteria of ideal microorganism used in probiotic**

High cell viability, resistant to low pH and acids, and able to maintain genetic stability in oral microflora.

Should be stable and in storage, a large number of viable bacteria must be able to survive.

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They should be able to interact or to send signals to immune cells.

They should be of human origin and beneficial effect on the host animal.

They should be non-virulent and non-pathogenic.

They must have the capacity to influence local metabolic activity.

#### **Risks during probiotic treatment-**

Sepsis- Lactobacillus species are rare but they are the well-recognized cause of endocarditis in adults and also responsible for causing other forms of sepsis in children in the absence of probiotic supplementation. Deleterious metabolic activities Immune deviation or excessive immune stimulation

#### **PROBIOTICS AND PERIODONTAL DISEASE:**

Periodontal diseases are classified into two major types – gingivitis and periodontitis. Inflammation of gingiva is known as gingivitis, whereas when there is a progressive, destructive disease that affects all supporting tissues of teeth, with the involvement of the alveolar bone is known to be periodontitis. The main pathogenic microbes associated with periodontitis are Porphyromonas gingivalis, Treponema denticola, Tannerella forsythia, and Aggregatibacter (formerly Actinomyces) actinomycetemcomitans. These bacteria have characterized by a variety of virulent factors allowing them to colonize at the subgingival sites, escape the host defense system, and leads to tissue damage.<sup>11</sup>

#### **Probiotics as an adjunct for clinical periodontal treatment-**

A probiotic alters the oral microbial ecology which is a useful tool in the clinical management of periodontitis. It has the potential to offer two-fold benefits.<sup>12</sup> Firstly, by competitive inhibition of periodontal pathogens, and hence reducing overall immunogenicity of the oral microbiota. Secondly, it modulates the active disease-associated immune/inflammatory pathways and reduces the destructive inflammation of periodontitis, and this leads to immune homeostasis that could be maintained by the host in the long term.

#### **Halitosis (oral malodour)-**

Halitosis or Bad breath is a common problem that can cause significant psychological distress and it is known to be associated with periodontitis having the putrefactive activity of the tongue microbiota. These play an important role in producing volatile malodorous compounds in both pathological (a disease associated) and physiological (transient non-disease associated) halitosis.<sup>13</sup> Probiotics help to maintain periodontal health and serve to combat pathological halitosis, It also helps the tongue ecology in the more difficult to reach areas of the tongue such as the dorsal posterior surface of the tongue for oral hygiene. There is an abundance of anaerobic gram-negative bacterial species associated with malodor.<sup>14</sup>

The antiplaque activity of the Probiotic mouth rinse: It reduces the adhesion of bacteria to the tooth surface, inhibits the growth and proliferation of microorganisms on the tooth surface, inhibits the formation of the intercellular plaque matrix, modifies plaque biochemistry to reduce the formation of the cytotoxic product, modifies plaque ecology to a less pathogenic flora.



Krasse et al have been observed in their studies that there is a decrease in gingival bleeding and reduced gingivitis with the application of *L. reuteri* Inhibits the growth of *P. gingivalis* and *P. intermedia*.

**USES** - Increased resistance to infection caused due to any disease, reduce lactose intolerance, Prevention of infections which are caused by diarrhea, gastritis, gut, vaginal and urogenital infections, Regulation of serum cholesterol concentration, reduction in blood pressure as well as regulation of hypertension, Reduction in allergy (Bengmark, 2000), respiratory infections, Dietary supplements, They give a beneficial effect without permanently colonizing the site. Rarely causes dramatic & long-term microbiological changes. Exerts beneficial effects by influencing the immune system.

#### **Probiotics as antifungal therapy-**

Interactions of probiotics with the bacteria and fungi in the oral cavity environment are dynamic and they usually drive the structure and behavior of the oral cavity microbiota which results in the pathogenesis of the oral diseases. Fungal species causing these infections such as *Candida* are dominant and they are known to be commensals in the oral cavity and they are present in about 25%–75% of the microbiota of healthy individuals.<sup>15</sup> The majority of cases of candidiasis are associated with *Candida albicans* isolates.<sup>16</sup> *Candida* species such as *C. krusei*, *C. tropicalis*, *C. glabrata*, *C. parapsilosis*, and *C. dubliniensis* were isolated from oral cavity infections.<sup>17</sup> These species are opportunistic pathogens and under suitable conditions, they infect the oral mucosa causing infectious oral candidiasis.<sup>18</sup> The mechanism of Probiotics demonstrated that they reduce the virulence of *Candida* by inhibiting biofilm formation and also provide additional benefit to antifungals. The lactobacilli may be able to inhibit *Candida* growth by competing for nutrients and producing lactic acid and other organic acids that lower the pH. *L. rhamnosus*, *L. casei*, and *L. acidophilus* significantly reduced levels of *Candida albicans* biofilms at the initial colonization phase and the later maturation phase of biofilm development.<sup>19</sup>

#### **Nitrate-Reducing Bacteria as Probiotic Agents**

Nitric oxide (NO) is generated endogenously through the activity of NO synthases. It is a labile and highly reactive gas that is formed from mammalian cells and it contributes to host defense against many pathogenic microorganisms.<sup>20</sup> The generation of nitric oxide occurs by the action of microbial nitrate reductases on salivary nitrate. Nitrate gets absorbed from ingested dietary sources and is actively concentrated by the salivary glands. Nitrate is then rapidly converted to nitrite in the mouth by bacteria by nitrate reductase enzymes. The bacteria which reduces nitrate stays within the crypts of the tongue, where they are maintained in an anaerobic environment, and during respiration, there is a reduction of nitrate to nitrite.<sup>21</sup> It has been shown that acidified nitrite significantly decreases the survival and growth of acidogenic bacteria such as *Lactobacillus* spp. and *Streptococcus mutans*. Salivary nitrite will encounter the acid environment around the teeth provided by acidogenic bacteria.<sup>22</sup> It has been proposed that increasing nitrate intake is important as it suppresses the growth of acid-forming bacteria and protects the teeth against caries. NO levels in saliva and gingival crevicular fluid are higher in patients with aggressive periodontitis as compared to gingivitis.<sup>23</sup>

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**Guided Pocket Recolonization (GPR)**

Recently, Teughels W et al in 2007 has been reported that the subgingival application of a bacterial mixture which is used after scaling and root planing in which includes Streptococcus sanguinis, Streptococcus salivarius (S. salivarius), and Streptococcus mitis significantly suppresses the re-colonization of Porphyromonas (canine P. gingivalis) and P.intermedia in a beagle dog model. This novel approach of Guided Pocket Recolonization provides a valuable addition or alternative to the armamentarium of treatment options for periodontitis .<sup>24</sup>

Probiotic <sup>25</sup>	Activity
S. salivarius K12	Antagonism
L. reuteri	Coaggregation
S. salivarius K12, M18	Interaction with epithelium
L. acidophilus LA-5	Modulation of biofilm
L. casei LC-11	Reduction of cariogenic biofilm potential
L. paracasei	Caries management
Lactobacilli sp	Periodontal control
Bifidobacterium sp	Gingivitis management
L. rhamnosus GG	Modulation of immune response
Bifidobacterium Animalis subsp. laciis	Improved resistance to oral infections

**COMMERCIALY AVAILABLE PROBIOTICS FOR PERIODONTAL DISEASE MANAGEMENT**

Few products containing probiotics (such as tablets, lozenges, chewing gums, or toothpaste) are currently available<sup>5</sup>:

- I. Gum PerioBalance
- II. PeriBiotic
- III. Bifidumbacterin, Acilact, Vitanar
- IV. Wakamate D
- V. Prodentis

**Gum PerioBalance** (marketed by Sunstar, Etoy, Switzerland)-This is the first probiotic specially formulated to fight periodontal disease. It contains a combination of two strains of L.reuteri which are specially selected for their synergistic properties to fight against periodontopathogens and cariogenic bacteria. Each dose of lozenge contains approx. 2×10<sup>8</sup> living cells of L. reuteriProdentis. Patients are advised to use a lozenge every day, after a meal or in the evening after brushing their teeth, to allow the probiotics to spread throughout the oral cavity and attach to the various surfaces of the oral cavity.<sup>26</sup>

**PeriBiotic** (Designs for Health, Inc.)- This is a toothpaste having an all-natural, fluoride-free oral hygiene supplement containing Dental-Lac, it is a functional Lactobacillus paracasei probiotics not found in any other toothpaste.<sup>26</sup>



**Bifidumbacterin, Acilact, Vitanar** (marketed by Alfarm Ltd., Moscow, Russia)- This a complex probiotics preparation of five live lyophilized lactic acid bacteria, is suggested to improve both clinical and microbiologic parameters in gingivitis and mild periodontitis patients. After mechanical debridement, 2 tablets to be dissolved in the mouth, three times a day for 20-30 days to be recommended to the patient for improved outcome.<sup>27</sup>

**Wakamate D** (Wakamoto Pharmaceutical Co., Tokyo, Japan)- This is the probiotic tablet containing  $6.5 \times 10^8$  colony forming units (CFU) per tablet of *Lactobacillus salivarius* WB21 and xylitol (280 mg/ tablet) was originally prepared to contribute to the intestinal microbial balance which is provided by acid tolerance *L. salivarius* WB21.<sup>28</sup>

**Prodentis** (BioGaia, Stockholm, Sweden)- This is a probiotic lozenge, which is a blend of two *Lactobacillus reuteri* strains containing a minimum of  $1 \times 10^8$  colony forming units (CFU) for each of the strains D.<sup>29</sup>

### RECENT ADVANCES IN PROBIOTICS -DESIGNER PROBIOTICS

Nowadays probiotics can deliver new and novel therapeutics that are also emerging with site specific and well-defined efficacy, which is now known as designer probiotics. Sletor and Hill introduced the term "Patho-Biotechnology". It comprises of three basic approaches

- I. Use of attenuated bacterial pathogens as a vaccine.
- II. Isolation and purification of pathogen-specific immunogenic protein for direct application
- III. Equipping probiotics bacteria with the genetic element necessary to overcome stress outside the host, inside host, and antagonize invading pathogens.

The third approach is termed "designer probiotics". This approach has been reported probiotics to be engineered to express receptor-like structures on their surface. It is available as a dietary supplement or can be applied topically, designer probiotics would support immunity and normal physiology to improve health and prevent infections, oxidation stress, autoimmune responses, and inflammatory diseases.<sup>30</sup> They improve the stress tolerance profile of probiotic cultures significantly and also improves tolerance to processing stress and also prolongs survival during subsequent storage. This in turn provides a larger proportion of the administered probiotics reaching the specific desired location (e.g., the gastrointestinal tract/periodontium) in a bioactive form.<sup>31</sup> Designer probiotics have been working on the treatment of HIV, also employs as a novel vaccine delivery vehicle. As for dental and periodontal health, probiotics have demonstrated to be having beneficial effects. Clinical studies have typically used surrogate endpoints such as *Streptococcus mutans* counts, salivary flow, plaque or gingival scores, and pocket depth to substantiate efficacy.<sup>32</sup>

**CONCLUSION** - Recent advances in technology have shown a constant guide to develop novel strategies for the treatment of periodontal diseases. The probiotics concept has introduced a specific viable microbial species which has health benefits upon a host by functioning via different mechanisms. With developing knowledge in molecular biology, probiotics positions carry an enormous chance to cure diseases in a normal and less-invasive manner. A serious necessity towards generating a worthy



gingival state for achieving worthy complete health these probiotics stand favorable, regular, harmless, and bad properties free preference. However, with further significant progress, probiotics may play an important role soon within the periodontal arena.

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## RISK MANAGEMENT IN HEALTHCARE ORGANIZATIONS

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### ABSTRACT

Healthcare organizations are a complex entity that undergo a lot of operations to provide health services to the patients. In the process of providing health services, the organization is vulnerable to many risks. These risks might be clinical associated, patient associated, financial risks, operational risks and physical hazards. The concept of risk management in healthcare began in the 1970s in the USA. Risk is a probable damage or loss caused by the vulnerabilities which can be avoided through proper planning and management. The only risks earlier that were thought and focused on were patient safety and clinical risks. These risks can be mitigated with a systematic process. There are five steps in risk management namely, risk identification, risk assessment, strategy development, strategy implementation and evaluation. The paper aims to focus on what are the various processes in risk management in healthcare management and focusses on the enterprise risk management. This overview explains the various emerging risks in the healthcare and needs to be focused.

**KEYWORDS-** Risk management, Process, ERM, Emerging risks

### INTRODUCTION

Risk is the potential for uncontrolled loss of something of value. It is the exposure to dangers and losses. Risks are also involved in the working of organizations and firms. The risks can cause serious damage to the finances and operations of the firm and also to the end user of the services provided by the organization. In order to sustain in the market and keep the business viable, these risks are required to be managed and mitigated effectively and efficiently. In the management world and literature, risk management is the practice of identifying potential risks in advance, analyzing them and taking precautionary steps to curb the risks.

There are numerous risks that are associated with the healthcare providing organizations and hospitals. In the year 2018, the healthcare sector scrutinized 15 million records out of which 503 breaches were reported. Medical errors are the third most common cause of death in the U.S. There are 2,50,000 cases of death due to medical errors. Healthcare workers are at a greater risk of experiencing workplace violence in their careers. Around 8% to 38% of healthcare workers suffer from violence at their workplace. These are only the cases reported whereas the numbers go up if threatening and verbal abuse cases



are counted. These are some of the statistics that show the number of various risks associated with the healthcare organizations.

Healthcare organizations deal with very complex operations that aims to deliver patient care with quality. Being in a sensitive domain of service provision, it is subjected to a lot of risks form both patient and personnel point of view. Risk management in healthcare is about processes involving monitoring, assessment, mitigation and prevention of risks which are clinical and administrative in nature.

Risk management in healthcare traditionally focused on patient safety majorly. But as the healthcare services expand their roles, the risks associated have also increased which are not only limited to patient safety but also business viability and sustainability, financial, legal and political domains. Hence, the hospital services and other healthcare associated organizations are expanding their risk management domain programs which primarily support and promote patient safety but also proactively safeguards other risk domains pertaining to the business.

This paper is a literature review on the overall aspect of risk management and its niche in healthcare. This overview aims to explain the process and steps that are essential in risk management. The various risks that are associated with healthcare organizations are also explained in detail.

## **RISK MANAGEMENT AND THE STEPS INVOLVED**

Risk management is development and implementation of strategies to optimize patient well being and to prevent harm or limit patient injury. It also focusses on reducing error to provide ultimate quality of healthcare service to the patients as well as reduce any financial loss and harm to the viability of the organization.

The process of risk management involves five basic and essential steps-

1. Risk identification.
2. Risk assessment.
3. Development of strategies of risk management.
4. Strategy implementation.
5. Evaluation of the strategies.

Risk identification-

It basically revolves around identifying potential risks in the organizations. The risks can be of four main categories. Hazard risks like injuries to the patients or the staff. Operational risks which include turnover failures. Financial risks like economic slowdown. Strategic risks which includes brand value diminishing or upcoming new competitors which are more efficient. Such risks are needed to be identified which are a potential risk to the organization as well as patients.

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#### Risk assessment-

This step involves measuring the frequency and severity of the risks that are identified in the organization. Heat maps or risks maps are generally used to visualize what risks are having which frequency in the organization. This helps in prioritizing the course of action that has to be taken regarding risk management.

#### Development of strategies of risk management-

Strategies are required to combat the risks that are of potential hazard to the organization. These risks can be developed newly with respect to the risk. Or strategies that were previously used or stated can be used if applicable in the context.

#### Strategy implementation-

Strategies are then implemented at various levels in the organization. All the staff and employees concerned are oriented regarding the strategies and changes made to take the necessary steps in their operations. This process involves change management amongst the employees to bring in action the strategies made.

#### Evaluation-

The strategies implemented are evaluated after a specific period of time like monthly and then quarterly. Continuous monitoring and evaluation are recommended to ensure streamlined functioning and also to address and solve any issues regarding the same.

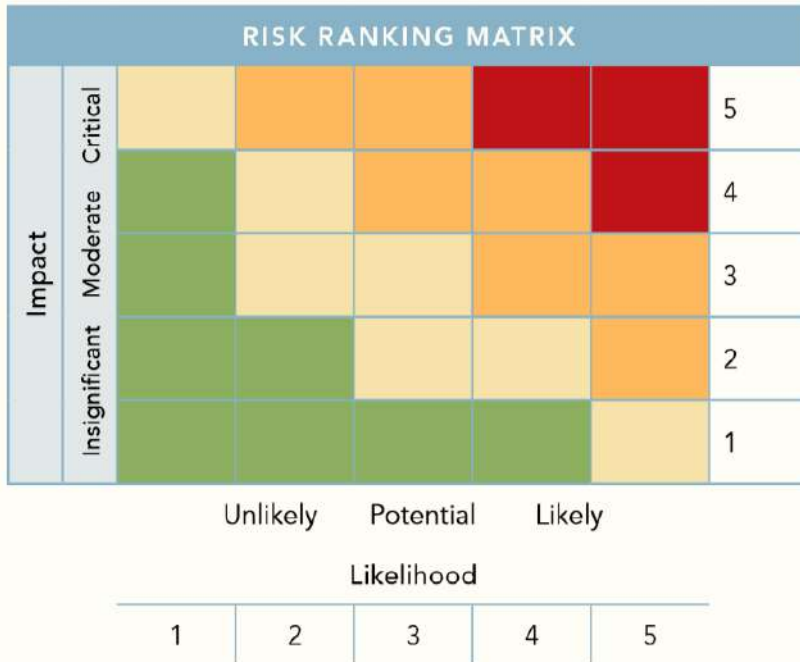
### **ENTERPRISE RISK MANAGEMENT**

The healthcare organization faces many potential risks in the operations as well as while delivering services to the patient. Based on the size of the organization various tools are used by the organization to identify and evaluate these risks so as to prioritize the course of action and check the opportunities associated with it.

Enterprise risk management includes the methods and processes used by the organization to manage the risk and opportunities associated with it are seized to achieve their objectives and aims. Enterprise risk management tool can employ the methods to identify the risks, report risks and its incident patterns. The ERM team will take into consideration the brainstorming and focus group discussions, reporting and satisfaction surveys. The ERM team will list down all the risks and compile them together for cross functional risks to be analyzed. Then the ERM team lists down the quick wins or quick fixes. This complete list of risks is called the risk inventory which is organized by the specialization area. There are a various factor that are taken into consideration while evaluating risks. The inventory has a dimension explaining the frequency or the likelihood of the risk to happen. The next dimension that is included in the impact of the risk on the organization, its stakeholders and patients. The third aspect

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taken into consideration is the speed or velocity that refers to the time taken to anticipate any risk that is going to happen, to realize the outcome and to take necessary measures to take in control the consequences. After the compilation of information, on an X and Y axes, on a Likert scale, the likelihood and impact factor are scored from 1 to 5. This gives a visual representation of the risk and the frequency and impact of it.



**Figure1: Likert Scale. Source: American Society for healthcare risk management, enterprise risk management: a framework for success,2014**

The ERM aims and approaches to get clarity of the risks and its outcomes and impacts. It enables to easily identify and analyze the risks and the consequences. It helps in a forward-looking approach in the risk management and helps combat any risks.

### EMERGING RISKS IN HEALTHCARE

Apart from patient safety that has been a major focus under risk management the healthcare possesses many other risks that are currently emerging and are a threat. The following sections throws some light on various emerging risks in the healthcare sector.



### **Patient privacy breach-**

Safeguarding patient privacy is one of the major challenges that the healthcare organizations are facing currently. Patient privacy and patient data breach is an increasing risk. This risk is very large and expensive in terms of combatting and correction of this risk. Verification is must even in the best practices while interoperating. The communication between the providers as well as between the healthcare providers and patients can cause data breach that might be leaked. Evaluation of data encryption in devices is must. Policies and procedures are needed to be developed when it comes to communication of patients with the healthcare provider and communication between the providers. Communication practices should be standardized and techniques should be innovated in order to assure patient data privacy. Timely audits are always helpful in order to monitor and prevent any issues regarding privacy of the patients.

### **Misdiagnosis-**

Misdiagnosis occurs when the clinicians or trainee clinicians are under pressure or are running out of time in an emergency situation to reach up to a diagnosis so as to start the treatment faster. Also, sometimes the clinicians tend to diagnose a particular disease even if they are not sure so as to keep the trust of people intact. The risk of misdiagnosis can cause a huge blow to the organization as it can hamper patient safety and be lethal. Such risks can be managed by having supervisors and monitoring clinicians' practices regularly with daily, weekly or monthly reporting so as to avoid this risk.

### **Violence in workplace-**

Violence against healthcare workers is a rising epidemic. This violence can be verbal abuse or even physical abuses at time. According to American journal of managed care, 2019, 75% of nearly 25,000 workplace assaults happen in healthcare settings of which 26% are emergency department personnel and 30% are nurses. Around 47% of physicians have reported that they have physically been assaulted at the workplace. To ensure the safety of the staff is very necessary as they are of utmost importance to the organization. the organizations must ensure staff safety by giving them training for various such incidents. These training should be done under disaster management. Also, the organization should ensure tight security for the same. The organizations should try to restrict entry of attendants with the patients in order to avoid overcrowding. Violence against healthcare workers is a commonplace nowadays and we need to mitigate this problem to safeguard the personnel of healthcare.

### **Medical devices-**

Medical devices is a huge emerging and eminent market in the healthcare industry. With advances in technology in healthcare there has been a lot of aid and ease in the processes and operations in healthcare. But with advances do come risks that would

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always be accompanied with the medical devices. Medical devices continue to give rise to product liability claims and malpractices too. Providers tend to use the devices off label and do not follow instructions as per manufacturers to save the cost. This can be a risk to both organization image and patient safety. Incorrect use of medical devices to save the cost is a potential risk to the organization. Strict rules for following the instructions regarding medical devices should be made.

#### **Patient centered care and shared decision making-**

The medical fraternity has been for the longest espoused the patients' engagement value in decision making. The patients are neglected to choose between the treatments that they wish to avail. They are not taken as a part of shared decision making with the clinicians and physicians. However, with the changing times the scenarios are changing. The organizations have recognized the importance of patient engagement in decision making so as to provide customer satisfaction and gives patients a sense of importance and choice to adopt. The patients should be informed and educated about various medical advancements and treatments they can avail from the array of treatments available. The organizations should develop a number of best practices tools to assure patient preferences and finances. The risk managers in the organizations should assign a team so as to consider a shared decision of the patient and guide them through the process.

#### **Telemedicine-**

Telemedicine is the booming services of the time in healthcare sector. This area is enabling to provide healthcare services to the people who do not have proximal access to the healthcare facilities. Telemedicine has made it easy for e-consultations, monitoring of the patients and diagnosis. As any other technology does, telemedicine possess its risks like educating the doctors and physicians about the technology. It is very important to know the limitations of telemedicine by the providers and they should know how to troubleshoot it. The organization must plan actively the infrastructure that is required for telemedicine and to analyze its value to the staff and patient.

#### **CONCLUSION**

Healthcare organizations aim at providing healthcare services and ensure patient safety by providing health. the organizations face a lot of challenges on the patient point as well as staff and organization sustainability point of view. These risks are necessary to be mitigated and looked upon in order to safeguard the patients and other stakeholders of the organization that are working endlessly. Risks are a potential threat to the healthcare organizations and are required to be managed. Organizations employ enterprise risk management team in order to work towards managing and focusing on mitigating various risks faced by the organizations. Risk management is needed to be focused on by every health organization in order to streamline the operations of the organization and ensure patient safety and satisfaction.



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## APPLICATION OF MARKOV CHAIN IN ASCERTAINING OF BRAND LOYALTY – A STUDY OF CONSUMER ELECTRONICS

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### ABSTRACT:

The focus of smart phone industry where brand loyalty is created through customer service and innovation is capturing market share through customer brand loyalty. This is an industry where switching happens often due to a multitude of factors like product quality, competing brands, customer service, price, etc. The Markov chain model which can predict the probability of switching is used in the study. The study attempts to examine the switching behaviour of people and its relation with their brand loyalty towards mobile phone brands they use. It is built on the work of Seduram, L., Perumal, S., Shaari, H. Bin, Seduram, L., Perumal, S., & Shaari, H. Bin. (2016) and Sonwalkar, J. (2016) study on brand loyalty in the mobile phone industry. The study is conducted to understand the switching behaviour of respondents in the age group of 18 to 37 years based on their brand loyalty, product performance and intention to switch. A total of 240 respondents were approached through online or directly for the study. The results have shown that customers switching behaviour of mobile phones is independent of their loyalty towards particular brand and the brand performance plays greater role in retaining customers loyalty. The study finding can benefit retailers seeking to understand customer needs and behaviour to improve sales.

**KEYWORDS:** Brand Performance, Brand Loyalty, Switching Behaviour, Mobile Phone

Companies take branding of their products seriously as the brand helps customers differentiate and choose their products over multitude of similar competitive products available in the market. The two main functional aspects of branding are creating an identity for the companies products and develop loyal customers. This practice is most evident in the consumer electronics sector where brand plays a huge role in customers choice. Smartphones are the most widely known and used consumer electronic products. It is estimated that close to half of the global population are smartphone users. There is a popular belief that higher the brand loyalty of a customer they are likely to refrain from switching to other brands of the product category. Most brands try to retain customer loyalty by using loyalty programs and offers. Brand loyalty is said to be achieved when a customer is highly involved with a specific product. The customer has a great outlook and attitude towards a specific product rather than simply buying it out of a normal pattern and when a customer chooses to repeatedly purchase a product produced by the same company instead of a substitute product produced by one of the competitors. He/ She perceives it as a product that is better than any other product available. Brand loyalty is important because it reduces the cost of marketing a product to existing





customers, businesses can set premium prices for products to increase margin and creates product advocacy i.e. customers refer the product to friends and family. It always begins with the customer's positive experience and how the product satisfies the need of customers. Brand loyalty reduces the switching behaviour of customers to different brands especially at times when there are competitively priced products.

Switching behaviour has a great impact on the company when it comes to competing with other products on the retail shelves, once the company establishes trust with the customer they will have positive consumer behaviour. A marketing strategy is said to be effective when it builds persuades customers to stop switching to other brands. Methods businesses use to prevent brand switching are by rewarding the customers with loyalty points, cashback offers, etc. It shows the most effective when there are closely competing products of different brands in industries like soft drinks, FMCG, mobile phones, etc. When brand loyalty is established customer continue to spend money with that business creating long term profit and competitive advantage.

The key factors influencing switching behaviour are customer trust in the brand, customers perceived value of the product, satisfaction after purchase, frequency of repeat purchase behaviour and the commitment of sticking to a single brand even when there is an external influence in play. Commitment, trust, satisfaction and repeat purchase are conditions that the firm must meet to obtain and retain customer's. But focus on customer loyalty may not always lead to positive financial outcomes as the customer behaviour is not straightforward as it is expected. Overspending on acquiring customer loyalty can lead to incurring additional cost and it may not increase sales as anticipated in the short term but can lead to lower price sensitivity. Spending on customer loyalty is most effective when the customer cannot completely stop product usage. The firm's ability to attract and retain customers is vital for its success in competing in the market. Marketing tools such as advertising, packaging, branding can be used to increase the attraction of the brand to potential customers. The above-mentioned tools boost the emotional response and attachment for the brand which can lead to developing brand loyalty as the customer starts to develop a bond and can tolerate any small mistakes made by the brand without affecting purchasing behaviour. Branding is relevant for increasing the brand loyalty of consumers but other conditions such as communication with the target market are handled well otherwise the customer will not pay attention. Branding strategies need to be customized based on the generation the target customers belong to as each generation needs to be treated differently.

#### **REVIEW OF LITERATURE:**

The customers with high brand loyalty are willing to spend time and money to purchase their favorite brands even when substitutes are available with similar attributes. The customer also is more forgiving of mistakes made in service or failure in the product and those more loyal are less sensitive to premium prices. Brand loyalty is vital to companies that help in increasing sales volume. Every year companies lose customers due to brand switching if the company wants to reduce customer loss it needs to improve brand loyalty levels. Brand loyalty also helps in setting a premium pricing strategy due to high levels of brand loyalty that reduce customer's price sensitivity. In

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actuality branding allows the product to give an impression to customers that it gives unique or additional value through internal and external perception, then the customers will be willing to pay a higher price for their brand preference. That value which the brand offers that competitors cannot offer will prevent brand switching. Brand loyalty can make customers less sensitive to competitive products in the same product range which helps the company save on marketing, distribution and promotion cost.

In Uslu, A., & Can, T. (2000), the author used sports shoe brands to examine brand loyalty and created a brand ranking to show which brands the customers prefer. The Markov model was used to study the probability of brand switching (intention to switch) which was represented using a transition matrix. The author listed sports shoe brands and asked people which brand they are presently using and which they would use in the future. The study was conducted due to knowing brand loyalty was connected with the customer's choice of brands over alternative brands.

Brand switching happens when the brand cannot provide the customers wants, this is most seen in mobile phones due to a large number of phone manufacturers in the domestic and international market. The availability of international brands in the domestic market provides customers with a wide range of choices. As the number of purchase channels increases, it becomes more difficult for phone manufacturers to retain customers. The fast development of technology and change in customer taste and preference play a major role in purchase decisions in the market due to the nature of the product. The author Sonwalkar, J. (2016) used a Markov chain model to predict sales by consideration of present sales figures and switching probability. The phone brands are highly competitive and by estimating the probability of brand switching the brands can adjust the marketing mix accordingly to have a competitive edge over other brands in the market. The result of the analysis can help plan strategies on pricing, promotion, product changes, distribution location and intensity based on the target group. The transition matrix table shows the probability of brand switching by considering the consumers present the brand and future choice. This can be done for the long term or short term with the assumption there are no big changes to customers' tastes and preferences.

The customers also behave differently when facing multiple channels or strategies this was studied in Chang, C. (2012) where the author explores customer behaviour when facing a single channel or multiple channels. The company has limited resources so it must choose the correct channel to ensure profitability. The customers gain experience over time and their choice is based on experience, so the customer's channel preference shows the customer's attitude towards repeat purchase. The author's observation of various customers learning patterns for each segment helps in predicting customer's channel preference as different marketing communication can have different results.

In the paper of Poulsen, C. S. (1990) it was opposite approach to Chang, C. (2012), where the author was focusing on the observation model by limiting the behavioral states, the issue with study was the customer can behave similarly for different reasons which were not identified but this also reduced the noise on the data which had more stable structure with use of segment membership and segment profile.

The authors Seduram, L., Perumal, S., Shaari, H. Bin, Seduram, L., Perumal, S., & Shaari, H. Bin. (2016) had studied customer brand loyalty in qualitative nature. The

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study focuses on the mobile phone industry which has one of the most competitive markets in the world where each brand tries to retain customers by developing brand loyalty but it becomes a challenge due to competitor's promotional strategies. As more new entrants enter the market the customers have a wide array of brands to choose from and companies try to match the needs of the customers to what the brand is offering. The customer's brand choice comes down multiple factors that the author's categories into utilitarian value and hedonic value (cognitive), brand satisfaction (affective), brand trust (conative) and finally mobile phone brand loyalty (action loyalty). But these factors are difficult to measure and need further refinement to better measure customer brand loyalty.

The market share and profitability of any business is dependent on the number of customers for a given period, In the study of Kassa, A. M., Abraham, E., & Seid, T. (2018) the focus is on the restaurant business where the retention and loss of customers greatly affects the profitability and market share due to having a finite number of customers present in an area. So, in this case, any loss by one restaurant is profit for another restaurant in the same area. Markov model is being used to predict the probability of customers switching restaurants and a probability tree can be used to visualize the joint probability of customer choice over many months to find out if the restaurant will be profitable shortly, this depends on fixing the variables on the number of restaurants in the area.

As established Brand loyalty is key to any business for long term survival and this is especially the case of the mobile phone industry where the market is aggressive due to the number of players in the domestic and international market. To find the key factors that influence brand loyalty extensive market research is required. The author Khundyz, Z. (2018) focuses on factors such as Brand Image, Customer Satisfaction, Trust and Promotion which have a significant impact on brand loyalty. The firm's resources are limited, so it needs to focus on which factors contribute more. It is known by experience that brand image and trust have more influence on brand loyalty long term and promotion has short term effects of increasing sales but can affect the brand long term when competing brands have better offers.

Customer's preference of brands is based on multiple factors so the company should develop effective marketing communication that the customer can relate to and understand which depends on how the communication is targeted, it varies by generation, segment, economic status, etc. Markov model can be used to predict the trend of customer preference based on past data. In the case of Kavitha, G., Udhayakumar, a, & Nagarajan, D. (2013) price movement of the stock market was predicated on the assumption that price movement of the stock market is not random. Many financial speculators are trying to find the pattern to the stock market based on trend analysis which gave rise to financial market speculation under the idea the past market movement will repeat in the future.

Similar to Kavitha, G., Udhayakumar, a, & Nagarajan, D. (2013) Markov chain model is used as only limited data is required and product share market can be predicted quantitatively for short term, although Markov model can be used for long term prediction there should be no big change in the market. It is not possible to predict on a long term basis due to there being many variables to consider.

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The product share market can be predicted based on the performance of the product existing with those segments. The author Li, L., Sun, J., Li, Y., & Xuan, H. (2014) in his study predicts the market performance to know the sales quantity and evaluate the product market's competitive ability. The prediction is possible by creating a temporary sales trend.

### **HYPOTHESIS:**

H0: There is no switching of the brand of mobile phones by youth.

H1: There is switching of the brand of mobile phones by youth.

H0: Switching behaviour is independent of brand performance

H1: Switching behaviour is dependent on brand performance

H0: Switching behaviour is independent of customer brand loyalty

H1: Switching behaviour is dependent on customer brand loyalty

### **Methodology**

This study measured the mobile users brand loyalty was using five variables and mobile brand performance using four variables. These variables and the smartphone brands considered were identified from asking questions to mobile users matching the respondents profile at random. The users responses were measured based on recent switching behaviour, and asked to rate on 5 option Likert scale format where in brand loyalty options were Never, Rarely, Sometimes, Often and Always; Brand performance options were ExtremelyPoor, Below Average, Average, Above Average and Excellent. The respondents were asked rate the mobile brand they previously used if they switched mobile brand recently or rate the currentmobilebrandthey are using if they not switched mobile brand recently.

This was done to measure user response based on past brand switching behaviour. Brands considered for the study: Samsung, OnePlus, Apple, Xiaomi, Motorola or Lenovo, Google, Vivo, Oppo, Honor, and Realme. The relationship between switching behaviour, customer brand loyalty, and brand performance is examined. This study is built on the work of Seduram, L., Perumal, S., Shaari, H. Bin, Seduram, L., Perumal, S., & Shaari, H. Bin. (2016) and Sonwalkar, J. (2016).

### **Participants profile**

This study has collected data from mobile phone users in and around MSRIM College, Bengaluru. The data was collected through an online survey method. The questioner link was shared through What's App group of the participants or to What's App number. Participants profile is shown in Table



**Table**  
**Participants profile (N=240)**

Demographic characteristics		Frequency	percent%
Gender	Male	170	70.83
	Female	70	29.17
	Total	240	100
Age (Years)	18-22	124	51.67
	23-27	90	31.50
	28-32	15	6.25
	33-37	11	4.58
	Total	240	100

### Data analysis and interpretation

The data was analysed using SPSS. The study follows Markov chain method to predict the probability of respondents switching using Markov transition matrix and the hypothesis was tested by Chi square test of Independence. (Seduram, L., Perumal, S., Shaari, H. Bin, Seduram, L., Perumal, S., & Shaari, H. Bin, 2016). The study identified there is brand switching among the respondents, the switching behaviour is dependent on brand recommendations, customer service, brand's promise, product quality, and close competitors. Some factors are independent like Age, repeat purchase from the brand, try other products in the same brand, price and sales promotion.

### Markov Chains Method:

Markov chain method is very useful when conducting research on social topics such as brand loyalty, where the Markov property is used to calculate the probability of a random process transitioning to the next possible state depending on current state and time. Markov chain method cannot be used if prediction is needed for short time intervals.

### Chi-Square Test of Independence:

The Chi-Square test of independence is used to determine if there is a significant relationship between two nominal (categorical) variables (www.statisticssolutions.com). The frequency of each category for one nominal variable is compared across the categories of the second nominal variable.

**Results**

**INTENTION TO SWITCH**

which brand of mobile are you presently using	which brand will you choose to buy in the near future										
	Samsung	OnePlus	Apple	Xiaomi	Motorola or Lenovo	Google	Vivo	Oppo	Honor	Realme	Present Total
Samsung	21	15	14	5	1	1	0	0	0	0	57
OnePlus	4	20	16	3	0	1	0	0	0	0	44
Apple	2	4	16	0	0	1	0	1	0	0	24
Xiaomi	0	19	16	19	2	2	0	0	0	1	59
Motorola or Lenovo	3	4	1	1	0	0	0	0	0	0	9
Google	1	1	1	0	0	2	0	0	0	0	5
Vivo	0	3	0	0	0	0	2	0	0	0	5
Oppo	1	3	4	0	0	0	0	2	0	0	10
Honor	0	4	0	4	0	0	1	1	1	0	11
Realme	0	6	0	2	0	1	0	0	0	7	16
Future Total	32	79	68	34	3	8	3	4	1	8	240

Chi-Square test is used on the above table to get the below results.

Chi Square Test results			
	Value	Df	Asymp. Sig. (2-Sided)
Pearson Chi-Square	348.891 <sup>a</sup>	81	6.1108E-35

H0: There is no switching of the brand of mobile phones by youth.

H1: There is switching of the brand of mobile phones by youth.

**Interpretation:**

P-value is 6.1108E-35 (P<0.05), We reject the null hypothesis. There is switching of the brand of mobile phones by youth for year 2019-20. The youths switch mobile phone brands due to phone performance and their need to explore new features. The age group above 37 may have a lesser probability to switch brands.

The transition probability matrix is calculated from the data given in table (Intention to switch). **The transition probability matrix of the brand switching behaviour of the youth for the period 2019-2020 is as follows:**

<b>0.37</b>	0.26	0.25	0.09	0.02	0.02	0.00	0.00	0.00	0.00
0.09	<b>0.45</b>	0.36	0.07	0.00	0.02	0.00	0.00	0.00	0.00
0.08	0.17	<b>0.67</b>	0.00	0.00	0.04	0.00	0.04	0.00	0.00



0.00	0.32	0.27	<b>0.32</b>	0.03	0.03	0.00	0.00	0.00	0.02
0.33	0.44	0.11	0.11	<b>0.00</b>	0.00	0.00	0.00	0.00	0.00
0.2	0.2	0.2	0.00	0.00	<b>0.4</b>	0.00	0.00	0.00	0.00
0.00	0.6	0.00	0.00	0.00	0.00	<b>0.4</b>	0.00	0.00	0.00
0.1	0.3	0.4	0.00	0.00	0.00	0.00	<b>0.2</b>	0.00	0.00
0.00	0.36	0.00	0.36	0.00	0.00	0.09	0.09	<b>0.09</b>	0.00
0.00	0.38	0.00	0.13	0.00	0.06	0.00	0.00	0.00	<b>0.44</b>

The matrix is calculated on the basis of the data collected in the study. Since the transition of mobile brand depends only on the brands used in the previous year, Markov chain of first order is considered here. The transition from state 2019 to 2020 is shown by the above probability matrix.

Brand loyalty ranking based on probability of brand preference on 2019-20:

Rank	Brands	Probability
1	Apple	0.67
2	OnePlus	0.45
3	Realme	0.44
4	Vivo	0.4
5	Google	0.4
6	Samsung	0.37
7	Xiaomi	0.32
8	Oppo	0.2
9	Honor	0.09
10	Motorola or Lenovo	0.00

**Interpretation:**

Apple is the most retained brand followed by OnePlus. Apple rank is contributed by its strong brand image, R&D and product performance. OnePlus rank lower than Apple due to lagging in R&D but it’s able to surpass other brands because of offering high performance phones at lower price range.

**CONCLUSION**

Using brand loyalty alone is not enough to attract and retain customers, it must be led by a strong product and after-sales services. Only when customers see the value for the product will they develop a positive response for the brand it belongs and be willing to risk time and money for future purchases of the same brand. This study found customers are more loyal to brand performance than brand influence. This may be due to information available about the product where it is possible to compare and choose a product based on personal value rather than brand promotion. Focusing too much on brand loyalty may not be wise since it adds more cost and not always lead to direct conversion. The importance of product quality on developing brand loyalty is known



since before 1950, so with innovative products and positive word of mouth through social media and customer testimonials may be the most effective marketing strategy.

### Limitations

The finding of the study are useful to smartphone companies wanting to improve their overall ranking among competitors in India, it was conducted only in and around MSRIM. Bangalore and needs to be verified across multiple states in India to be beneficial to companies involved in smartphone sector. The results may vary with larger sample that has more diverse mobile user profile and different consumer electronic product category. This study has considered only smartphone brands and no other consumer electronic products. Further studies can done on other regions in India and also include comparative study considering other consumer electronic products. Future studies can also include other variables to measure brand loyalty and brand performance.

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**Hkjrh; I fo/ku eaLora-rk dk vf/kdij %, d fl gloykdu**

**MMN hrgje cJok**

, I k'k, V i kQ j & jktulfr foKku  
jktsk ik; yV jkt dh; Lukrdkikj egkfo |ky; |  
ykyI k/] ftyk nS kj jktLFkk

**MMNfxjkt iIn tkuoy**

i oZ Llgk; d i kQ j & jktulfr foKku %o: ) Vh-vkj-, Q-½  
jktsk ik; yV jkt dh; Lukrdkikj egkfo |ky; |  
ykyI k/] ftyk nS kj jktLFkk

**Lkjtk**

Hkjrh ea , dhdr U; k; 0; oLFkk gS ftI ds }kjk ey vf/kdijka dks iwZ I j{k.k ikr gA iLrqr 'kdk i= ea  
Hkjrh; I fo/ku ea of.kz Lora-rk ds vf/kdijka ds o.ku ds I kFk I kFk bu ij yxs ;D; ;D; ifrcakka dk Hkh I kacki kx  
o.ku fd; k x; k gA iLrqr i= eaftu vf/kdijka dh miqtk dh xbZ gS mudk Hkh vkylpukred eW; kacu fd; k x; k gA  
bl ds I kFk vxat h fof/k vlg vejhdu fof/k ds vlrj ds I kFk I kFk Hkjrh; U; k; ky; ds {ts=kf/kdij I s yd j bl dh  
voekuuk rd ds fo'kSkkf/kdijka dk Hkh mYy[k fd; k x; k gA Hkjrh; iztkrae eaLora-rk ds vf/kdijka I s uxkfj dka ea c<+  
jgs I Eeku dk Hkh o.ku fd; k x; k gA Lora-rk ds vf/kdijka I Ecdh I fo/ku I akksku vf/kfu; eka dk Hkh eW; kacu dj  
i kI fxd I q-ko Hkh iLrqr djus dk iz kI fd; k x; k gA  
Ek[; 'kCn %Lora-rk] vf/kdij] U; k; ikfyd] iztkrae] {ts=kf/kdij] I akksku] I fo/ku vkfna

**iLrrouk**

Lora-rk I Ecl/h ekSyd vf/kdij nclj Hkjrh; I fo/ku }kjk 0; fDr; ka , oa uxkfj dka dks Hkjrh ea , d  
I ektokn I ekt dh LFkku dk djus dh bPNk 0; Dr dh xBA ijUrqbU ij vusd izdkj ds ifrcak yxs gq gA Lora-rk  
I Ecl/h ekSyd vf/kdijka eafI ) kar , oa 0; ogkj ea vlrj gA , d k yxrk gS fd bl ga , d gkFk I s yd j nh js gkFk I s Nhuus  
dk iz kI fd; k x; k gA ekSyd vf/kdijka ea vkfFkZd , oa I keftd vf/kdijka dh vogysuk I h dh xbZ gA tcd I fo/ku  
dh iLrrouk ea Hkjrh ea I keftd , oa vkfFkZd U; k; ykus dk I dV i I Lrqr fd; k x; k gS vlg fQj Hkh ekSyd vf/kdijka ea  
Jei vjke dju} I keftd I j{k I s I Ecl/kr vf/kdijka dh miqtk dh xbZ gA ekSyd vf/kdijka ds }kjk Hkjrh; uxkfj d  
vius thou dk I oPpre fodkI dj I drk gA vf/kdijka ij yxk; s x; s ifrcakka I s Kkr gkxk gS fd I Uk/kjh ny  
fojkdh ny dh Lora-rk vki j ifrcak yxk I drk gA I d n jkVh; fgr vlg iztkfud dkyrk dsfy, vuqNn 19 I s 22  
ds Lora-rk I Ecl/h vf/kdijka ij fu; .k dh 0; oLFkk dj I drh gA bl izdkj vf/kdij vfEghu I s irhr ghus yxs gA  
vuqNn 32 ds rgr I oPp U; k; ky; ey vf/kdijka dk I j{k d gA bl ds vjFEhd vlg vihyh; {ts=kf/kdij ikr gA  
cni iR; {hclj .kj ijelns] ifr'kkl] mRi'k.k vlg vf/kdij iPNk tS h fVj ds ek; e I s ey vf/kdijka dh I j{k djrh gA  
ijUrqU; k; 0; oLFkk bruh egxh gS fd I k/kj .k 0; fDr budk  
ykhk ugha ys I drkA

ekSyd vf/kdijka dh 0; oLFkk, afuyfEcr dj nh tkrh gS tc nsk ea; ;D; ; k clg; vkQe.k tS svkkr dh  
fLFkr gA ekSyd vf/kdijka ea Lora-rk ds vf/kdij Hkjrh; ykdrae ds vk/kj LrEHk gA Lora-rk ds vf/kdijka ij



ifrcalka ds vkiopR; dk Li "Vhdj.k ; g gsfv vktlnh ds le; nsk l keinkf; drk dh vlx ea >yl jgk Fkk] nsk dk foHktu gls pepl FkA vr%0; fDr; ka dh Lorark dls l hfer j [kk tkuk vko'; d FkA<sup>1</sup>

jKT; l s dh xbz vr; fkd i R; k'kvla dk ifj.kkelo: i gha ey vf/kcdjla dh vkykpuK, a gsrh gA oLr% vl; Fk ; g dkbz vfr'; kDr ugha gsfv ey vf/kcdjla ds dlj.k gh Hkjr dk uxvj d ykdrk=d Lorarkvla dk ml Hks djusea Lorak gsl dk gA 'kkl u dk dkbz Hh vx ey vf/kcdjla dk mYyZku ugha dj l drkA buds }kjk l Hh dls vius fodkl dk l eku vol j ikr gsl dk gA<sup>2</sup>

Hkjr; l io/kku vktln Hkjr ea, d u; s l ekt dh l jpuK dk l dYi gA l ekt ds fi NM; 'kks'kr] mif[kr] xjhch vjg mRi hMva ds f'kdj ylxla dh vkf'kd] l kelftd mlufv ds l kfk muds fgrka o vf/kcdjla dh j {kk ds fy, vucl i ko/kku fd; s x; s gA vjg buds ylxw d jus ds fy, vucl l d'kufud l k'k'vla dk xBu fd; k x; k ijUrq dkyUrj ea; s l k'k, a viuh Hkiedk dk fuoZu djusea vl Qy jgh gA vkt ; s l k'k, ajktufv k'la vjg ukd'k'gla dh i uk LFkyh cu xbz gA ; s l k'k, a l io/kku dh vogyuk u djus ds ykNU l s l jdkj dks epluk dk iz kl rks djrh gS ijUrq budh fl Qkfj'ka dls dHh xhkhjr l s ugha fy; k tkkA tu ifrfuf/k ,oa l jdkj viuh ifrc) rk fn [kk, rks cgrs x.kra= fodfl r gsl drk gA<sup>3</sup>

l io/kku ds ijEHk ea l Ei fuk ds vf/kxg.k Lokfero o foO; dk vf/kcdj l Hh Hkjr; uxvj dha dks inku fd; k x; s FkA bl l EclUk ea vuqNn 31 dh ; g 0; oLFk Fh fd dkuu dh l Uk ds vfrfjDr fd l Hh 0; fDr dks ml dh l Ei fuk l soipr ugha fd; k tk, xkAl Ei fuk dny l koZfud fgr ea gh vf/kxgr dh tk l drh FkA , d k dny dkuu }kjk gh fd; k tk l drk Fk rFk bl idkj vf/kxgr l Ei fuk ds cnys uxvj dha dks eykotk nsuk vko'; d Fk vFok mlga eykotk nus dh dk; fof/k l EclUk l puK nsuk t: jh FkA vuqNn 31 1/2 us mu ifjUlFkr; ka dks fu: fir fd; k ft l ds vUrxr jKT; 0; fDr dh l Ei fuk dk vf/kxg.k dj l drk FkA l io/kku ds 44oa l akkuu }kjk turk ikVh dh l jdkj us 1978&79 ea l io/kku l s l Ei fr dk vf/kcdj gVh fn; k fn; kA l io/kku ds Hks 12 ds vuqNn 300v ds: i ea , d ubz 0; oLFk }kjk bl s dny , d dkuu vf/kcdj ds: i ea gh vachdkj fd; k x; kA bl vuqNn dk 'k'kd Fk&'foUk l Ei fuk vjg eplneA" ; g 0; oLFk bl ckr dh rdhn djrh gsfv fl ok; dkuu dh l Uk ds "fd l Hh 0; fDr dks ml dh l Ei fr l soipr ugha fd; k tk, xkA ; g 0; oLFk fd l h 0; fDr dks l Ei fuk l soipr djus ds dk; i kfydk vkskka ds fo: ) rks l j {kk inku djrh gS yidu ; g l j {kk l d n ; k fo/kkue.MY ds fd l h , d s dk; Z ij i Hkoh ugha gsrhA yxHkx l Hh 0; kogfjd n"V; ka l s bl l EclUk ea fd l h Hh U; kf; d i q l z h {kk ij vc ifrcUk l k yx x; k gA geljk l ekt eyr% , d fo'kerkeyd fofokrk dk l ekt gA , d s l ekt ea l Ei fuk ds vf/kcdj us dny oxiz fo'kkskf/kcdj cuk; s j [kus ea gh l gk; rk inku dh gA "dyDVj vKd dLVEI cuke l Ei Fiq p'vVi" ekeys ea mPpre U; k; ky; us dgk gsfv vuqNn 19 ds mi cl/ka ds fuoZu ea vejhdh l dYi uk dk vkrk em dj vuq j.k ugha fd; k tk l drkA vuqNn 19 1/2 ea fucl/ku ylxus okyh fd l h Hh fof/k dh oBkrk dny ; fDr; frrk ij gh fuHj ugha djrhA fucl/ku ; fDr; frrk gsfv Qj Hh fof/k voBk gsl drh gS; fn fucl/ku l EclUk [k.M ea fn; s x; s vk/kjka ij ugha yx; k x; k gA 16olp l io/kku l akkuu vf/kfu; e 1963 ds }kjk vuqNn 19 ds [k.M 1/2 ea "ds fgr ea" dkbz ds igys "Hkjr dh i Hkrk , oa v [k.Mrk" 'kcn tkksA; A vuq 19 ds [k.M 1/2 o 1/4 ea buds igys "" 'kcn Hh tkksA x; kA ; g l io/kku dh l rLkouk ds vuq i gA ft l ds vuq kj i Hkrk vjg v [k.Mrk dh j {kk l io/kku dk ml s; gA ; g /; ku nus; kx; gsfv Hkjr dh i Hkrk vjg v [k.Mrk ds vk/kj ij fucl/ku dh vuqfr gsu fd jKT; ka dh i Hkq Uk o v [k.Mrk ds vk/kj ij A jKT; dh l j {kk % l Hh dkuu vf/kcdj fof/k dh nu gS vjg fof/k jKT; }kjk ylxwdh tkrh gA jKT; dh l j {kk u gksus ij vf/kcdjla dh j {kk ugha gsl drh gA ; fn 0; fDr; ka ds vf/kcdjla dks ylxw ugha fd; k tk l drk ; fn mul s jKT; dh l j {kk dks [krjk i shk glrk gA; u, l - ds , d ekeya ea U; k; efrZ gkE us dgk Fk&"tc jk"V ; q dj jgk gks rks cgr l h krra



'kár ds le; dgh tk l drh gš ml ds iz; Ruka ea, d h ck/kd gls l drh gš fd tc rd ; q) gš jgk gls muck d gk  
l gu ugha fd; k tk l drk vlg dkbz U; k; ky; mlga l ošškfud vf/kclj }kjk l jff{kr ugha eku l drka\*\*

1- fonskh jkt; ka ds l kfk eš-hi wíz l Ecll/k % i Fke l fio/ku l akšku vf/kfu; e 1951 }kjk bl s tkmk x; ka ; g vuřNn 51  
ds vuq i gš ftl ea; g funššRed fl ) lar gš fd jkt; vlrjzVh; 'kár vlg l j{kk dh mUřr rFkk jk"Vha ds chp  
U; k; o l Eeku iwíz l Ecll/ka dls cuk; sj [kus dk iz; kl d jšxka

2- ykcl 0; oLFkk % bl s Hh i Fke l fio/ku l akšku vf/kfu; e 1951 }kjk tkmk x; ka \*\*jesk Fkij cule enkl jkt; \*\*  
ekeys ea vihy/fkiz , d vaxst h l klrkfgd \*\*ØWU jkm\*\* tš l klrkfgd cEcbZ l s izclfk"kr gšrk Fkk dk epnd i r'kl d  
, oa l Eiknd FkA enkl l kožt-fud 0; oLFkk vuq{.k.k vf/kfu; e j 1949 ds vlrxř mDr l klrkfgd ds enkl jkt; ea  
i oš k ij ifrcak yxk fn; k x; k FkA vihy/fkiz us vuřNn 32 ds vlrxř , d ; kfpdk }kjk enkl l jclj ds  
vksk rFkk vf/kfu; e dh l ošškfudrk dls bl vk/kj ij papušh nh Fkh fd bl l s ml ds okd&Lora-rk dk mYyžku  
gqk gš vlg vf/kfu; e dh /kjk 19% d½ ftl ds vlrxř jkt; dls l kožt-fud l j{kk rFkk l kožt-fud 0; oLFkk cuk; s  
j [kus ds fy, if=dk ds i oš k ij ifrcak yklus dk vf/kclj i ktr gš vl ošškfud gš D; kád l kožt-fud l j{kk ; k  
l kožt-fud 0; oLFkk vuřNn 19% ds vlrxř vuřkr vk/kj ugha gā bl ekeys ea mPpre U; k; ky; us vi us  
cgeř l s fu.kz ea; g dgk fd vf/kfu; e dh /kjk 19% d½ tš ykcl l j{kk ; k ykcl 0; oLFkk j [kus ds fy, tuž  
ds i oš k o ipyu dš jklus ds fy, jkt; l jclj dš i k/ldr djrh gš vl ošškfud gš D; kád vuřNn 19% d½  
}kjk inŭk Lora-rk ij fudl/ku dšy vuřNn 19% ea of.kř vk/kjka ij gh yxk; s tk l drs gā ykcl l j{kk rFkk  
ykcl 0; oLFkk vuřNn 19% ea of.kř ugha gā \*\*fcgkj jkt; cule 'šy ckyk noh" ea lakte uked , d iqlrdk ea  
y{k d us turk l s ; g vihy dh fd l c ykšla dš l žk"z ea 'křey gšdj fgā k }kjk Økřr ykuh pkfg, ft l l s  
neudkj; ka dkj tš ekřHie ds fy, dyd gš iwíz uk" k gš l dā bl ekeys ea mPpre U; k; ky; us ; g fu.kz  
fd; k fd iqlrdk dš i <ej dkbz Hh foocd" hty 0; fDr ml l s i Hkfor ugha gš l drk bl fy, bl l s l kožt-fud  
0; oLFkk dš dkbz [krkj ugha gš l drk gā U; k; ky; us izcl"ku ds fy, vuřr ns nŭa i jŭrqfo"o fgŭq i f"n ds  
us k i dh.k ršxfl+; k ds exyž ij i oš k ij duŭd l jclj ds vksk dš mPp U; k; ky; us vuřr crk; ka i jŭrq  
mPpre U; k; ky; us mPp U; k; ky; ds fu.kz dš j l dšrs gq dgk fd l h Hh 0; fDr dš vi us Hk" k. k vFkok  
vkpj. k l s l fio/ku dš ekd; rk i ktr i kř fujiškrk dš r kus ckus dš u"V dš us dh vuřr ugha nh tk l drhA dš u  
0; oLFkk cuk; sj [kus okys vf/kclj; ka dš yxrk gš fd fd l h 0; fDr dš Hk" k. k ; k vkpj. k l s l kEi nřk; d ruko ; k  
dVřk Ošy l drh gšrk, d h vřiz flFkr dš jklus ds fy, ifrcak vko"; d gšrk gā

3- f" kVkpj % l nkpj dh l helvā ds vlrxř gh Hk" k. k rFkk vřko; fDr dh Lora-rk mřr gā fcl/su vlg vejhdcl ea  
Hh okd-Lora-rk vf/kclj gš i jŭrq v"yhy Hk" k. k ; k izcl"ku fuf" k) gā i jŭrq v"yhyrk dh ij [k D; k gš vaxst h  
fof/k ea bl dh ij [k "vkj- cule fgdfyu" oln ea nh xbz ftl ds vuq kj v"yhyrk dh dl kš/h bl ckr dk fu.kz  
djus ea gš fd D; k ft l oLrq ds fo: ) v"yhyrk dk vkjāi gš og bl ; kš; gš fd , d seflr" d ds ykšla dš HřV  
dj l ds tš bl izclj ds vuřd i Hko dš xg. k dj l dš ; kš; gš vlg ftuds gFkā , d k izcl"ku i mšus dh  
l Hkrouk gā vejhdcl fof/k ea v"yhyrk dš bl izclj l e> k; k x; k gš mřr ij [k ; g gš fd D; k l edtyhu  
l kmpř; d ekud ds vuq kj ij h foolnřl l kexh ij fopkj dš us ij ml dk i Hkrouk fo'k; l keld; 0; fDr dh : fp  
dš vihy djrk gā\*\*

bl izclj vaxst h fof/k vlg vejhdcl fof/k nšuka ea fuEu vlrj gš  
% gdfyu ij [k ds vuq kj dšy ml Hkx ij U; k; ky; fopkj dš xk ftl ij v"yhyrk dk vkjāi gš ij vejhdcl  
ij [k ds vuq kj l k h l kexh ij fopkj djuk gšokā tš sfd l h iqlrd ds v"yhy gkus ds vkjāi ea vaxst h ij [k dšy



mu i"Blā ij foplj dj fu. lē nxl ftl ij v"yhy gkus dk vjkiē gē tēfd vejhdh ij [k ds vuū kj l Eiwlē i lērd ij foplj djdsrc mu i"Blā dh v"yhyrk ds cksj eadkbz fu. lē nxlā

½½ vxāth ij [k ds vuū kj fu. lē bl ckr ij fuhtj gksk fd v"yhy l kexh mu ylxka dks HkV dj l drh gē; k ugha ftuds bl i dklj dh l kexh l s i Hkfor gkus dh vf/kd l Hkhouk gā vejhdh ij [k eafu. lē bl ckr ij fuhtj djsk fd l edkyhu l kepki; d eud ds vuū kj , d l kelū; 0; fDr ds Āā j ml dk D; k i Hko gksā bl i dklj ; g Li"V gēfd vxāth ij [k ds v/klj ij vkl kuh l sfdl h pht dks v"yhy l kfcf fd; k tk l drk gā

Hkjr ea"jātr Mh- mns'kh cule egkj"V" ea vihykHkHkjr; n. M l ġrk dh /kjk 292 ds vlrē vfk; kētr fd; k x; k FkA mPpre U; k; ky; usfgdfyu ij [k ds v/klj ij Mh- , p- ykjā }kjk fyf[kr , d i lērd "yMh pVjyst yoj" dks v"yhy ?kēkr dj n; k tēfd ogh i lērd vejhdh o dukMk o vejhdh eav"yhy ugha ekuh xbz ftl l s U; k; ky; dh dQh vkykpk gā "l ejsk ckl cule vey fe=k" ekeys ea Hk mPpre U; k; ky; us l Ei k. k fd; k fd , d vllnz yēk vfuok; 7" v"yhy ugha gksā vllnrk l s ?k. k vjē i R; rstu o Āc dh Hkhouk mri lu gsrh gā i j l r q ml dk i Hko mi U; kl ds i k Bd dh uērdk dks HkV nēkr ; k fodr djuk ugha gksā tēfd v"yhyrk dh i dfr , s ylxka dk pfj= fcxkMus ; k HkV djus dh gsrh gēftudseu bl i dklj ds i Hko ds fy, [kys jgrs gā

vuūNn 19½ ds vlrē U; k; ky; voekuuk l Ecl/kh fof/k ; fDr & fDr fucl/ku gā bl fy, Hk" k. k o vfk; fDr dh Lorārk ij jkl yxkus ds klot m Hh vl s k fud ugha gā U; k; ky; voeku dbz rjg l s g l drk gē tē s U; k; ky; k/kr"ka dk vieku djuk mu ij v kē. k djuk fopkj/khu dk; bkg h ij fVli .kh djuk ftl l s fu' i {k tlp ea ck/k i Mh gē U; k; ky; ds vf/kclj; k i {k r Fk xokga dks jkcluk U; k; ky; dh i fē; k dk nq lk; l x r Fk vl; d b z , d k dk; l djuk ftl l s U; k; ky; i kfydk dh cnukh ; k e; k h k Hk gā dkyus dh Lorārk ds vf/kclj ds l Ecl/k ea, d i z u ; g Hh mBk fd D; k bl eamūkj nus dk vf/kclj Hh "kfey gā

okd-rFk vfk; fDr dh Lorārk , d ey vf/kclj gēftl s U; k; ky; }kjk i dfrē fd; k tk l drk gē fQj Hh ; g vf/kclj vfucl/kr ugha gā 42oa l i o/ku l ākku vf/kfu; e 1976 }kjk tkMē s; x; ey d rē; U; k; ky; }kjk i d rē; ugha gā Hkjr; l i o/ku ds i j l ākRed Lo: i ea , drk , oa v [k. Mrk dk; e j [kus dk i wē iz kl fd; k gā bl h dklj .k vuūNn 5 ea dōy bdgjh ukxfjdrk dk iko/ku , oa vuūNn 301 ea i js Hkjr ea 0; ol k; , oa 0; ki kj dh Lorārk nh xbz gā vuūNn 19 ds [k. M ¼¼ ds mi [k. M ¼¼ Hkjr ds jkT; {k= ea l oē vck/k l p j .k dk vf/kclj i R; d ukxfjd dks nrk gā gēv/ dh vfuok; 7k ds l Ecl/k ea "v t; dkuucule Hkjr l āk" ea e k v j ; ku vf/kfu; e dk fu; e 498, l d s k fud ?kēkr fd; k x; k D; k d bl dk mē s ; i k. k ?kr d nēk/uk l s M k b o j dh j {k dk vjē l Mēd ij vuko"; d Hh m+ vjē : dkoV u gkus nus gā

vuūNn 19¼¼ d½ }kjk i nr okd-rFk vfk; fDr dh Lorārk eafdl h Hh i dklj l s viuh jk; 0; Dr djuk "kfey gā ; g vfk; fDr e k [kd 'k rka }kjk yēk }kjk rLojka }kjk epz k ; k vl; fdl h ek; e }kjk gē l drh gā VyhQku ij dh xbz ckrphr fu% ng bl vf/kclj ds vlrē vkrh gā bl fy, "fi i y l ; i u; u Qj fl foy fycVht cule Hkjr l āk" eamPpre U; k; ky; us ; g fu. lē fd; k fd VyhQku ij dh xbz ckrphr vuūNn 19¼¼ d½ ds vlrē ey vf/kclj gā bl ij fucl/ku vuūNn 19 ½½ eafn; s x; s v/kljā ij gh yxk; s tk l drs gā vl; i dklj ds fucl/ku vl d s k fud gā VyhQku vf/kfu; e 1885 dh /kjk 5 ykd vki k vjē ykd l j k k ds v/klj ij VyhQku ij ckrphr dks Vā djus dh vuūk nrh gē fQj Hh i fē; k ; fDr; fDr vjē mēpr gks h p k f g , A vuūNn 19 ds vf/kclj dōy Hkjr; ukxfjda dks gh i k r gā d n ey vf/kclj l Hh 0; fDr; k d s fy, gā p k g s o s ukxfjd gē s ; k xē ukxfjd i j l r q vuūNn 19 eafn; s x; s l Hh vf/kclj dōy Hkjr; ukxfjda ds fy, gā xē ukxfjd bu vf/kcljka dk nkok ugha dj l d rā



vu@Nn 20 dk dkbz Hh [k.M rc rd ylxwugha gls l drk tc rd fd dkbz vij/k u fd; k x; k gls i jUrq vij/k 'Kn dh i fjk'kk l io/ku ea ugha nh xbz gA bl fy, l keW; [k.M vf/fu; e dh /kjk 3/87% ea nh xbz i fjk'kk vUrjzVh; fof/k gh ylxwugha bl ds vUrXr vij/k dk vFz gS fd dkbz dk; Z tks fdl h fof/k }kjk t@kZuk djklok l ; k eR; q

ds : i ea n.Muh; fd; k x; kA

l io/ku ds vu@Nns 20 1/8% ea Lo; a vfhk'kd u ds fo: ) vf/kdij fn; k x; k gS ftl ea mi dLk/ gS fd fdl h vij/k ds fy, vfhk; @r fdl h 0; fDr dks Lo; a vius fo: ) l k(h gks ds fy, ck/; ugha fd; k tk l drhA iR; sd vf/kdij dk viuk vkdij gS i jUrq m ea i jLij vfr0; kfr gks l drh gA bl fy, ; g er l gh ugha gS fd vu@Nn 21 ea nh xbz nfgd Lorark dk vFz cgr 0; ki d gA bl ea os vf/kdij vk tkrs gS ftuea l s dN vu@Nn 19 ea i fkd ey vf/kdij ds : i ea fn; s x; s gA gekjs l io/ku ea, dUrRk dk vf/kdij vfhk0; Dr : i l s 'kfey ugha fd; k x; k fQJ Hh vu@Nn 21 ea Lorark 'Kn bruk 0; ki d gS fd bl ea, dUrRk dk vf/kdij Hh 'kfey gA

“, e-i: 'kelz cule l r'h'knz" ea mPpre U; k; ky; us ; g fu.kz fd; k x; k Fk dkbz djk.k ugha gS fd ; g l kp fy; k tk; sfd vu@Nn 20 1/8% dk l j{k.k dby U; k; ky; ea i jh{k.k ds l e; tks dgk x; k ogta rd l her gA vu@Nn 20 1/8% ea iz @r 'knkokyh l k(h gks gS l k(h ds : i ea mi fLkr gks ugha gA bl fy, ; g l j{k.k igys fy, x; s l k; i j Hh ylxwugha gA ; g l Ei k.k l r'h'k 'kelz ds d' ea vuko"; d Fk D; khd U; k; ky; ; g fofuf"p; dj p@k Fk fd ryk'h ds nSku nLrkost ka dh vfuok; Z i Lrqr ugha dgh tk l drhA

l q-to

Lorark ds vf/kdij ka dh l j{k.fdl izdkj dh tk; s; g ,d egRo i wZ i' u gA i fyl vfhk{k ea ylxka ds l kfk l cl s vf/d vij/k gks gA vr% l io/ku ds vu@Nn 20 ds vUrXr vfhk{k ekeya ea vr; kpj jkklus ds fy, fuEu funk ifrikfnr fd; s tk l drs gA

- 1- i fyl }kjk cnh cukrs ; k i Nrkn djrs l e; igpku i= vS uke ds Vx igus gq gks pkfg, rFk mudh fof"krV; kajftLVJ ea uk/ gA
- 2- i fyl vMl j fxj'rkjh dk ehels rS kj dj fxj'rkj fd; s tkus okys 0; fDr ds dV/c ds l nL; ; k {s- ds l eel fur 0; fDr l s ml s i ekf.kr dj k, xk rFk cnh ds glrk{kj ds l kfk ml i j l e; vS frfFk Hh vIdr dh tk, xhA
- 3- cnh cuk; s x; s 0; fDr ds fudVre fe= ; k fj"rnkj dks bl dh l puk nh tkuh pkfg, A
- 4- cnh cukus dk l e; ] LFku vS vfhk{k ds LFku dh l puk tgl ml ds l Eadh ftyk ds ckgj jgrk gS {s- ds i fyl LVs ku dsek/; e l snh tk; A
- 5- cnh cuk; s x; s 0; fDr dks viuh fxj'rkjh ds cksj s eafdl h dks tkudkj h nus dk vf/kdij gA
- 6- ftl i fyl vMl j dh vfhk{k ea cnh ds j [k x; k gS ml dh fof"krV; ka rFk , oa fxj'rkjh dh l puk nh xbz ml dk foj.k fy [ka
- 7- fxj'rkjh ds rjUr ckn ml dh pS/ka dk mYy{k fd; k tkuk pkfg, A fujh{k.k ehela i j cnh vS i fyl vMl j nksu ds glrk{kj dj , d ifr cnh dks nh tkuh pkfg, A
- 8- LokLF; l ok ds funs'kd }kjk vupkr i f"kr {kr MNDVj l s i R; sd 48 ?k. Va ckn cnh dk fofdr l dh; i jh{k.k dj k; k tkuk pkfg, A
- 9- fxj'rkjh ehela l fgr l Hh nLrkost ka dh , d i rfyfi {s- ds eftLVV dks vfhk{k ds fy, Hkstuh pkfg, A
- 10- cnh dks vius odhy l s i Nrkn ds fy, feyus nuk pkfg, A



11- fxjqrkj dh ds 12 ?k. Va ds vlnj ftyk eq; ky; ka ds fu; æ- k d{k ea tkudkj nh tkuh plfg, A

vuqNn 35¼d½ ea; g micak gS fd l d n vuqNn 16¼8¼ 32¼8¼ 33 rFk 34 ds v/ku fof/k cuk l drh gA vuqNn 35¼k½ ds vuq kj ; fn bl izkj dh dkbz fof/k l io/kku ylxw gks l s i gys gh idr gsrk l d n }kjk ifjorZ djus ; k fujfl r djus rd idr ea jgxA bl vuqNn ds vlrzr l d n vLi"; rk %vij/k½ vf/kfu; e 1955 ea ifjorZ dj fl foy vf/kdj l j{k.k vf/kfu; e] 1955 dj fn; k rFk vuq ipr tkfr vuq ipr tutkfr %v; kpkj fuokj.k½ vf/kfu; e] 1989 i kfr dj pph gA<sup>5</sup>

0; fDr; ka dls vi us ey vf/kdj ka ds Nhus tkus dk [kr]k l cl svf/kd jkT; l s gkrk gA rFk ml jk [kr]k 0; fDr; ka l s gA bl fy, 0; fDr; ka dls jkT; ds fo: ) t/s vf/kdj i ktr gS os vuqNn 14] 15¼¼ 16] 18¼¼ 19] 20] 21] 22] 25] 26] 27] 28] 29 rFk 30 eafn; s x; s gA 0; fDr; ka dls 0; fDr; ka ds fo: ) t/s vf/kdj i ktr gS os vuqNn 15¼2¼ 17] 18¼2¼ l s 18¼4¼ 23 rFk 24 ea mYyf [kr gA ey vf/kdj Hary{h u gclj Hkfo"; y{h gA bl fy, , s k dkuu t/s l io/kku i k jEHk gks dh frFk ij ylxw Fk vj ey vf/kdj ka ds fo: ) gS l io/kku ds i k jEHk dh frFk l s %h; gskA l io/kku ds i k jEHk dh frFk l s i gys fd; s x; s l Hh dk; ka ds fy, og dkuu eku; gskA fdl h Hh vf/kdj ij ; fDr; fDr fucD/ku U; k; ky; dh i qfo ykdu 'fDr dls vj vf/kd c-k nrk gA yfdu ; fDr; fDr dls tkpus dh dkbz d l ksh Hh ugha gS vj bl dk fu.kz l n d ifjLFkr; ka ds vk/kj ij fd; k tkrk gA mPpre U; k; ky; ds fu.kz ka l s dN l keku; fl ) kar LFkfr gq gA ftuds vk/kj ij ; fDr; fDr dh tlp tkrh gA

- 1- ; fDr; fDr ij vire fu.kz nus dh 'fDr U; k; ky; dh gS u fd fo/kf; dk dhA
- 2- Uxfjd vf/kdj ka ij yxk; s x; s fucD/ku U; k; i wZ vj l keku; turk ds fgr ea gks plfg, A os fDr d fgr vj l kektf d fgr ea l ketL; dk iz kl gks plfg, A
- 3- ; fDr; fDr dk dkbz l keku; vk/kj ugha gS l drkA iR; d ekeys dh ifjLFkr; ka vj rF; ka ij og fuhj djskA ; g elun.M ml vf/kdj dh idfr] gkbz dh ek=k] ml s nj djus dh vfuok; Zk] fucD/ku yxkus ds vuq kr ea fkuurk vj l edkyu ifjLFkr; ka ds vuphy cnyrk jgrk gA<sup>6</sup>
- 4- Yxk; s tk jgs fucD/ku ka dks ekSyd fof/k vj i fO; k fof/k nku n fVdsk l s ; fDr i wZ gks vko"; d gA
- 5- jkT; ds ufr funs'kd rRo ea fufgr ml s; ka dh i kfr ds fy, yxk; s x; s fucD/ku ; fDr; fDr ekus tk l drs gA
- 6- tc U; k; ky; fdl h fucD/ku dh ; fDr; fDr ij fopkj djs rks mudk n fVdsk olrfu" B gks plfg, u fd 0; fDr fu" BA
- 7- vuqNn 19¼¼ eafn; s x; svf/kdj ka ij yxk; s x; s fucD/ku dny vuqNn 19¼2¼ l s 19¼6¼ rd ds of. kr vk/kj ka ij gh yxk; s tk l drs gA fdl h vU; vk/kj ij yxk; s x; s fucD/ku vl dsk fud gskA
- 8- U; k; ky; dkuu dh ; fDr; fDr dk fu/kj .k ugha dj l drA ml ga dny ; g nq'ku gS fd uxfjd vf/kdj ka ij yxk; s x; s fucD/ku ; fDr; fDr gS; k ugha gA
- 9- fucD/ku fu'kRed Hh gS l drs gA dN fo"sk ekey ka ea uxfjd ka ds i wZ vf/kdj ij jkd yxkus ds fucD/ku Hh ; fDr; fDr gS l drs gA [kr]kd 0; ki kj ka vj mRi knu ij jkd yxkus t s 'kjc] u"kyh i k s mxku] vj r ka dk O; foO; djuk vfn ; fDr; fDr fucD/ku gA iR; d uxfjd dls fof/ki wZ okf.kT; dk i jk vf/kdj gA yfdu bl vf/kdj dk iz kx ml s ; fDr; fDr fucD/ku ka ds v/ku gh djuk gskA

Lo; a xkdh th 0; fDrxr Lorark ds uke ij eDr cktj 0; oLFk dls i Zs nus ds f[ky]Q FkA nh jh vj og ykxka ds thou vj vF0; oLFk ij jkT; ds i wZ fu; æ- k ds Hh foj ksh FkA if"peh l ekt dk eDr 0; fDr , d vln" k vj ekuoh; l ekt ds fuelz k ea ck/kd gA xkdh th n fV ea 0; fDr dk 0; ogj vkrfu; eu l svuqkr l r gA eDr dk l nHk v/; kRed gA vkrfuqkr l 0; fDr l kektf d l fkhj ea Hh ; kx nku nrk gA xkdh dk 0; fDr oln ft l ea 0; fDr l R; dk





vloskd gš ml svfgl d elxz ij ys tkrk gš vlgš Hkkšrd vko"; drkvla dsfy, i Mš h ds ifr bekunj cukrk gš tcf d if"peh 0; fDrokn vi uh Lorærk dsfy, 'kfdR l 2k'kz gA<sup>7</sup>

tuojh 2008 eamPpre U; k; ky; us rfeyuMq ea iloxy ds vol j ij gkus okyh 400 o'kz i gikuh tyhdVVw%csyha dh yMkbz dls i gys rls iwiz-% ifrcd/kr dj fn; k Fkk ijUrq rfeyuMq l jdkj dh i qj h(k.k ; kfpdk ij foplj djus ds ckn bl "krz ds l kfk bl svk; kštr djus dh vuqfr nh fd dyDVj dls ; g l i quf"pr djuk gskk fd lk"kvla ds fdl h Hh rjg dk Øj rki wiz 0; ogkj u gA

Qjojh 2008 eafok vk; lœ us 2040ha fji kšz ea yMels eafook grq U; wure vk; q 21 o'kz l s 2k'kz dj 18 o'kz djus dk l p-to fn; k gA vk; lœ dk ekuuk gšfd yMeh o yMels dh mez ea 'knh dsfy, vlrj j [kus dk dkbz rfc d l vk/kj ugha gA bl h idkj fglng mŭkj k/ kclj vf/kfu; e dsekstmk dkuuh i ko/kkuha eafdl h l Ei fŭk /kjd dh fo/kok ds vfrfjDr i e-] i q-h o ek dls gh i kfkfedrk okys mŭkj k/ kclj ea "kfe y fd; k x; k gš rFkk fi rnk dk uke ml jh Js th ds mŭkj k/ kclj ea 'kfe y fd; k x; k gA bua l 2k'kzku djus dk l p-to fn; k gšfd fcuk ol h; r fy [ls ftu l rkuha dh eR; q gš tkrh gš mudh l Ei fŭk ea l s fi rnk dls Hh fgl k fn; k tkuk pfg, A viy 2008 eamPpre U; k; ky; us \_\_k ol yh ds , d ekeys ea Oš yk fn; k fd l Ei fŭk dk vf/kclj Hkys gh ey vf/kclj ugha gš ijUrq ekuok/ kclj l s t p k gkus l s v Hh Hh l 2k'kz fud vf/kclj gš vlgš dkuuh rlg ij te rd vfuok; Zu gš rc rd fdl h 0; fDr dls bl vf/kclj l s o i pr ugha fd; k tk l drkA<sup>8</sup>

ekuo vf/kclj la ds ikphu Hkkj rh; n"Vdlsk ds gh vuq kj egHkkj r ea vf/kclj dls drD; ds l kfk x p k gvk ekurs gq dgk x; k gšfd tiseut; Lo; a tfor jguk pgrk gA og ml jha ds i k dš sys l drk gA vi usfy, tš l i qo/k euq; pgrk gš ogh ml jha ds fy, l y Hk djkus dh ckr ml s l kpuh pfg, Avkt l i o/kku vlgš vf/kclj la ds l m HZ ea l cl s T; knk [kšz ukd l eL; k fo"okl ds l dV dh gA foHku oxla vxMš vlgš fi NMš rFkk vfr fi NMš ds chip vfo"okl dh [kšz xgj h ghr tk jgh gA bl l s dgha vf/kd Hk; kog i fj.kke okyh idzfr dk mn; l k Fkkx r eW; la ds ifr vfo"okl ds dkj.k gš jgk gA fofk vk; lœ dh prkouh fd jk'V<sup>2</sup> vius l ka ml gš dk; l kfydk ds ifr vfo"okl mRiUu dj l drk gš ijUrq ft l fnu og U; k; ky; ea vfo"okl 0; Dr djus yxk ml fnu nš k dk v/k% ru vo"; EHkh ghs tk; skA ey vf/kclj la ds l m HZ ea U; k; i kfydk dh l fØ; rk gh l j {k.k dk vk/kj gA<sup>9</sup>

l ā n us tui rfu/ Rro ¼ 2k'kzku vlgš fof/keU; dj.kz vf/kfu; e 2013 ft l dls jk'V i fr us 24 fl rEj 2013 dls eatj h inku dhA bl ea tui rfu/ Rro dkuu 2013 ds [k.M 62 eafd; s x; s l 2k'kzku ds vuq kj fgjkl r eagkus ds cktotm dkbz 0; fDr ernrk cuk jgsk D; k d ml ds ernku ds vf/kclj dls vLFkk; h : i l s LFkx r fd; k x; k gA vFkkz-ty ea cn gkus ds cktotm puko yMš rFkk vihy ds yfcer gkus ds nš ku l ka nka , oa fo/kk; dka dh l nL; rk cjdj kj j [kus dh vuqfr nus dk i ko/kku gš yfdu bl nš ku ml ga ernku vlgš oru gkl y djus dk vf/kclj ugha jgsk AvxLr 2014 dls dlnh; ea-he.M y usfd "kšz U; k; ¼ nš Hkky vlgš cky l j {k.kz vf/kfu; e 2000 eacnyko dj fuf"pr fd; k gšfd 16 o'kz l s vf/kd vlgš 18 o'kz l s de vk; q dk dkbz fd "kšz ; fn xHkhj vij k/ k djrk gš rls fd "kšz U; k; d k MZ ¼ t p u k by t f l V l d k MZ r; djxk fd ml ij o; Lda dh rjg fu; fer vnryh epnek pys; k ml s l p k j xg Hskt tk; A<sup>10</sup>

vDVij 2015 ea Hkkj rh; /keZ fuji {krk ea ekst m foHku /kela dh i Fk d ux fjd l i grk xkela vlgš nkrjh idj.k dls ydj nš k ea d k j k e p k gA ; g vl eku fl foy l i grk l ekrk dsekšyd vf/kclj ds fo: ) ds gA ekšyd vf/kclj gea i jh Lorærk ds l kfk thus dk gd nrs gš bl fy, chQ&i kclz %ck; vlgš 'kqj dk eld ¼ [kuk ; k efl-yeka ds fook dkuu tš iwiz-% i q "kha ds i {k ea gš l ekrk ds fl ) kr dsfy, foj kš Hkkl gA gea , d jk'V<sup>2</sup> ds : i ea , d l eku ux fjd l i grk dh rjQ c-ek pfg, A uhr funškd rro ds vuqfr 48 ds xš l j {k.k dkuu , oa bLykeh dkuu ij foplj djus dh vko"; drk gA l Hh jktuifrd ny vlgš /keZ i e f k /keZ vk/ k f j r dkuu dls gvkus dk fu.kz djA



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**PLIGHT OF WOMEN IN COLONIZED NIGERIA: A REREADING OF  
CHINUA ACHEBE'S THINGS FALL APART THROUGH A FEMINIST  
PERSPECTIVE**

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**ABSTRACT:** Subjugation of women is one of the evils confronting women all over the world and it is further compounded if they are placed in unstable political and cultural societies or events. While Post-colonial literature addresses the problems and consequences of the decolonization of a country, it also presents us a picture of the plight of women during and post colonization. Opposing many authors' point of view on the Igbo tribe, Achebe in *Things fall Apart* sets on to comprehensively describe the tribe and present a genuine picture of the condition that prevailed during those times - in a pre as well as post colonial Nigeria. Doing so, he has also unconsciously brought forth a picture of the plight of women in those societies. But this representation of women is essentially patriarchal. While he has glorified male characters and placed them in superior positions than that of women, he has also shown how whatever women faced was just a natural happening considering the time period to which the novel dates back to. However, reading as a women, one can clearly sense the injustice done to the female characters in the novel who have been presented as weak, passive, voiceless and devoid of an individuality of their own. This paper aims to shed light on this aspect of the novel.

**Keywords:** Post-colonial, Women, Subjugation, Patriarchal, Weak, Voiceless, Passive.

According to John Updike *Things Fall Apart* is "A great book that bespeaks a great, brave, kind, human spirit" (reviewed in *The New Yorker* in the 1970s). The person he is referring to is the main character of the novel Okonkwo. But does reading *Things Fall Apart* from the point of view of a woman change one's perspective on the text? This paper aims to attempt a feminist reading of *Things Fall Apart* and see how it changes our perspective on its main character Okonkwo and the text as a whole.

Before beginning a feminist analysis, we must rewind the historical and cultural context in which *Things Fall Apart* was written. *Things Fall Apart*, first published in 1958, was initially written as a response to colonialist representation of Africa and African literature, especially Joyce Cary's *Mister Johnson* (1939). Cary's work positions Africa in the typical colonialist frame: as individuals without motives, forethought, or knowledge other than base responses to their environs. Against this context, Achebe's novel allowed European readers to perceive Africans through an alternate lens. The Igbo society described by Achebe has definitive and complex social systems, values and traditions. Achebe presents customs such as abandonment of twin children, the sacrifice of human beings as conventions and not barbaric, inhumane rituals. He brilliantly places his characters within an ancient civilization with a labyrinthine system of governance and laws. Consequently Achebe's main character, Okonkwo emerges early in the text as a traditional hero, who has within himself the ability to languish or attain his goals.



In her book *Contemporary African Literature and Politics of Gender*(1994), Florence Stratton addresses the question of gender ideology in *Things Fall Apart*, arguing that the nationalist and anti- imperialist project of the novel homogenizes African subjectivity, thereby effacing internal social differentiation based on gender. She sets up the problem as follows:

Achebe subverts and dismantles the racial codes of [the] paradigmatic colonial texts by contextualizing it in an alternate discourse- one which seeks to ‘restore dignity and self respect’ to ‘African people’. For China Achebe’s own version of the story- *Things Fall Apart*- tells the tragic consequences of imperialism, of the destruction of a culture which manifested ‘great depth and value and beauty’. The question is, however: Does Achebe attempt to restore ‘dignity and respect’ to African women? Does he tell his female readers ‘Where the rain began to beat them?’(45)

At the end of her essay Stratton’s clear answer is: Achebe does not tell African women where the rain began to beat them. Nor does he attempt to restore ‘dignity and respect’ to African women.

Although many critics explicate upon the horrors and injustices Okonkwo inflicts upon the men in his life (mainly his son Nwoye, and his other son Ikemefuna), most omit any discussion of the abuse suffered by Okonkwo’s wives. We will focus on two major female characters, Ekwefi and Ezinma and one minor figure, Ojiugo, in order to evaluate the text from a feminist point of view. They are only mentioned briefly throughout the text and are examined only in relation to Okonkwo’s actions or motivations. What is omitted is analyzing these characters according to their self-perceptions, as well as societal awareness of them as women, wives, mothers and daughters. Exploring the relationships between these women reveals not only relationships between mothers and their offspring, but also alliances between comrades in arms.

The characterization of Okonkwo’s second wife, Ekwefi seems almost insignificant to one reading from a patriarchal standpoint, but when reevaluated, one will find that she is a well of knowledge, love and fierce independence. In *Things Fall Apart*, women are viewed mainly as child bearers and help mates for their husbands. Due to the patriarchal notion that women must produce male children to be valued within their cultural system, Ekwefi is considered a cursed woman because after ten live births, only one girl child survives. Thus “By the time Onwumbiko was born, Ekwefi was a very bitter woman” (58). After the death of her second child it is Okonkwo, not Ekwefi, who consults the dibia to locate the source of her difficulty. It is also Okonkwo who consults yet another dibia after the death of Ekwefi’s third child, highlighting the fact that Ekwefi has failed not because she cannot have a viable child but because she cannot provide her husband with a male progeny.

Moreover, most readings of the novel do not address the brutal beating Ekwefi receives at the hands of Okonkwo. “Who killed this banana tree? He asked. A hush fell over the compound immediately... Without further argument Okonkwo gave her a sound beating and left her only daughter weeping” (28). The novel proceeds with a brief discussion of this continued abuse later when Okonkwo threatens Ekwefi with a gun

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after hearing her murmur under her breath. Yet the next day, “in spite of this incident the Yam Festival was celebrated with great joy in Okonkwo’s household” (29). Reading as a woman, one may understand Ekwefi’s resignation. After the beatings, she recollects her love for the then impoverished Okonkwo. Although she was married to another, her desire for Okonkwo was so strong, that she ran away from her husband, yet a sound beating and ill treatment is the prize she receives for her love and devotion.

Although this brutality does not result in any reaction from the village elders, Okonkwo’s whipping of his youngest wife, Ojuigo does. But this public outcry is a result not of the physical battering but, rather the timing of the occurrence- The Week of Peace. “You have committed a great evil” (23), said the priest of earth Goddess to him because since it was during The Week Peace, they would be cursed by the Earth Goddess. There is no regard from the elders about Ojuigo’s condition but to the contrary, one elder boldly asserts that she is at fault, but she should not have been harmed in any way for it being The Week of Peace. Moreover, because Ekwefi is beaten after this week, there is no outrage beyond the protests of the other two wives who dare to speak in support of their wounded sister.

There is another woman, or young girl who elicits pure love from all the lives she touches, even her father, Okonkwo. However, he cannot fully appreciate Ezinma as a person. Instead of admiring her for her strength and disposition, Okonkwo is saddened by the fact that she is not male. “She should have been a boy, he thought as he looked at his ten-year-old daughter... If Ezinma would had been a boy I would have been happier. She has the right spirit” (56). One may empathize with Okonkwo who, because of fate, has no child except a daughter worthy of conveying familial legacies. But because Ezinma is female, she cannot function in this capacity. Initially believed to be an obanje child who had only come to stay for a short period, after Ezinma thrives, she is pampered by her mother, and as the child who would be king if she were male. Ezinma is the embodiment of all the women in this novel represent: intelligence, vitality, and fortitude. Even in her relationship with her mother, Ezinma exhibits what Okonkwo, through his phallogocentric lens, perceives as masculine tendencies:

Ezinma did not call her mother Nne like all children. She called her by her name, Ekwefi, as her father and other grown-up people did. The relationship between them was not only that of mother and child. There was something in it like the companionship of equals, which was strengthened by such little conspiracies as eating eggs in the bedroom. (Achebe, 24)

Ezinma calls her mother by her name, signifying the development of an autonomous, effectual being. Ezinma and Ekwefi share a bond that is unlike most other parental ties in the novel: they are virtually equals. Their affiliation is based on mutual love, respect, and understanding. They share secret moments, such as eating eggs in the confines of her bedroom, solidifying their bond even more, even after Okonkwo threatens both of them. While analyzing one’s position as a female reader it seems that female solidarity threatens male dominance and male character.

Thus this maternal connection becomes a caveat for Okonkwo and traditional society because he cannot control the depths of love and the shared enthusiasm between a mother and daughter. This is most evident when, for example, Okonkwo forbids

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Ekwefi to leave her hut after Ezinma is carried off by the chief priestess. Ekwefi ignores her husband and risks a flogging to follow Chielo and her daughter throughout the night, until she is certain that her daughter will return home safely. The factor that a wife's concern for her daughter makes her forget all the rules and regulations of the clan point towards the fact that women do have the courage and strength to stand against all odds and fight for the things that they consider right.

Along with these, the novel has many other instances too where we can see women being subjugated, objectified and ill-treated. It is evident from the very beginning that if a man in Umuofia doesn't possess young wives along with land and property, he is considered a failure. Okoye, a neighbor of Okonkwo's father Unoka, is not a failure like him because "He had a large barn full of yams and he had three wives" (5). Moreover, when Okonkwo's father had died and he was to begin his life without anything, it is stressed that "He neither inherited a barn nor a title, nor even a young wife" (14). But when he rose in life from having nothing to slowly progressing, it is mentioned that now "He was a wealthy farmer and had two barns full of yams, and had just married his third wife" (6). It is seen that marrying as many young girls as possible was a kind of achievement for the men in Umuofia. It becomes more evident when as the novel further progresses, along with other properties of men of Umuofia; the number of wives they possess is also always being mentioned. For example another wealthy man in Umuofia named Nwakibie "had three huge barns, nine wives and thirty children" (15). Also, if a man did not possess any title he was equaled to a woman. For instance when a man once contradicted Okonkwo at a meeting, Okonkwo had said, "This meeting is for men" (20). The man who had contradicted him had no titles. That is why he had called him a woman. Okonkwo later in his life recalls his father being called an *agbala* by a playmate, which was another name for woman and also could mean a man who had taken no title. Besides, when Okonkwo's son Nwoye was heard grumbling about women, Okonkwo felt happy because "That showed that in no time he would be able to control his women-folk. No matter how prosperous a man was, if he was unable to rule his women and his children (and especially his women) he was not really a man" (38). Thus, it is evident how in Umuofian society being a failure and not possessing enough property or a title were considered womanly features and that itself was a shame for them. However what is ironical is the fact that while marrying many girls was a matter of pride for Umuofian men, the girls who were married off at a young age were questioned and tested regarding their chastity.

Also, though there is ample mention of Okonkwo's father in the text, there is hardly any mention of his mother. Within the narrative space of the novel is only one direct, substantive mention of his mother. In his paper *Okonkwo and His Mother: Things Fall Apart and Issues of Gender in the Constitution of African Postcolonial Discourse*, Biodun Jeyifo writes,

The allusion to Okonkwo's mother occurs in chapter nine of the novel; significantly, she is not named. The precise narrative moment seems, on the surface, of no particular thematic noteworthiness: three days after his participation in the ritual murder of the youth Ikemefuna, his "adopted" son, Okonkwo is just beginning to emerge from the emotional and spiritual trauma of that event. Characteristically, it irks



him that he has indeed been weak and "unmanly" enough to have succumbed to the trauma.

He further writes how that whole episode only lasts one short paragraph where when Okonkwo wakes up in the middle of the night due to mosquito bites, he recalls a similar episode with his mother. His mother had associated a story with the biting of mosquitoes which Okonkwo had thought of as "silly women stories". Like the mosquito bite which presumably worried his brief wakeful moment within a restful sleep only as a very minor irritation, Okonkwo's memory of his mother's stories in his childhood is very easily suppressed; and it is easily consigned to the domain of "silly women's stories." This seems quite consistent with the larger pattern of intra-familial and inter-generational conflicts elaborated in the novel: Okonkwo's relationship with his father, and later his relationship with his son, Nwoye, is fore grounded over relationships with his nameless mother, his wives, and his daughters. From a feminist perspective, this, more than anything else, reveals the male-centeredness of Achebe in this novel. While this is incontrovertible, it is only part of the story, and it barely scratches the surface of the complex and ambiguous gender politics of the text of *Things Fall Apart*.

Thus, it is evident from this discussion that while *Things Fall Apart* glorifies Okonkwo's masculinity and projects him as a superior character on one hand, it presents a sad reality of the Igbo women. It is clear how Okonkwo and his tribesmen are themselves responsible for this plight of the women. *Things Fall Apart* leaves little room for the projection of feminine values. It might be argued that while the Igbo people hold women in high position while praying to them in the form of Earth Goddess Ani and also making one the priestess of The Oracle of Hills, no importance is paid to them in their own households itself ironically. Hence, the initial notion that we have of Okonkwo of being laden with qualities of heroism and masculinity, changes when read from a feminist perspective.

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## YOGIC PRACTICES: A TRUE PRACTICE OF REAL LIFE

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### ABSTRACT

God created man to live happily. Man too for his happiness and comfort design many comforts. He enjoyed leisure's and simplified all his work. As a result slowly he loses the vigor and strength of his physique and spirit. When he realizes this he wants to redeem himself. He begins to follow yogic practices for his well being. Now he understands the great fullness of our spiritual practices. He likes to keep physical, mental, intellectual and emotional balance. He understands clear by that to integrate and harmonize our body is the only way to lead a real happy life. This paper is an attempt to put forth the various yogic practices for creating awareness among the readers. These paper various types of Asana and yoga's which upgrade us physically and intellectually. It also presents the different types of remedies to our maladies. The body and mind the yogic practice also gives tips to develop the stamina of the body and good learning. The prime motive of life is happy living that can be achieved through various yogic practices an uncompromised healthy living is possible only through following our own ancient practices

**KEY WORD** :Yoga, Yogic Practices, Pranayama, Meditation, Jogging, Best Practices

### INTRODUCTION

Yoga is an ancient discipline. It is recognized as one of the most important and valuable gifts of our culture. The modern era, with the development of science and technology provides man more comforts for his basic necessities. But with these comforts man faces lot of problems, which cannot be solved only by the above facilities. Today the world is which cannot be solved only by the above facilities. Today the world is looking for solutions to solve the menacing problems of unhappiness, restlessness, emotional imbalance, hyper activity, tension, stress, etc.

Now the time has come to think of a change in attitude and take a new dimension to solve the problems. There is the important of yoga and spiritual core. Yoga is the gift of our Rishi culture, is a science and art of pure life style. Yoga offers man a conscious process to solve his problems. Yoga helps the man to evoke the hidden potentialities of man in a systematic and scientific way by which man becomes a fuller individual.

All his faculties – physical, mental, intellectual and emotional – developed in a harmonious and integrated fashion to meet the all-round challenge at the modern technological era, with its hectic speed. The specialty of the Yogic processes is that the faculties get sharpened in tune with the spiritual progress of man.





## **PRINCIPLES**

The following precautions should be taken while practicing yoga. Though anybody can practice asanas, they become more efficacious and beneficial when performed in the proper manner after correct preparation.

## **BREATHING**

One should always breath through the nose unless specific instructions are give to the contrary. One should try to coordinate the breath with the asana.

## **AWARENESS**

This is the most essential part of yogic practice. The purpose of asana is to influence, Integrate and harmonize all the levels of being: Physical, pranic, mental, emotional, psychic and spiritual. The practice of asanas may appear to be physical in the beginning but they have profound effects at every level of being if they are combined with awareness. Awareness means consciously noting the physical movements, the posture, breath control and synchronization, mental counting, sensations, in the body, movement of prana, concentration on an area of the body or chakra and the most important, any thoughts or feelings that may arise during the' practice.

## **RELAXATION**

Savasana may be performed at any point during asana practice, particularly, when one feels tired physically or mentally. It should also be performed after completing the asana program.

## **SEQUENCE**

Asana should be performed after completing shatkriyas. It should be followed by pranayama than prathyahara and dharana which lead to meditation.

## **COUNTER POSE**

It is important to form the asana program to include backward and forward bending asanas. Backward bends are followed by forward bends and vice versa. Whatever is practice on one side of the body must be repeated on the other side. This concept of counterpose is necessary to bring back the body to a balanced state.

## **TIME**

Asana may be practiced at any time of the day except after meals. It may be practiced in the morning before the sunrise or in the evening. But the best time is the two hours before and including sunrise which is known as Brahma Mathura. This is the best time because the atmosphere will be pure and quite, the activities of the stomach and intestines have stopped, the mind has no deep impressions.

## **PLACE**

The place must be well ventilated one. It should be calm and quiet. Asanas may also be practiced in the outdoors' but the environment should be pleasant. One should not practice asanas in the vicinity of furniture, fire or anything that prevents free-rail to the ground

## **BLANKET**

Asanas should not be performed on a plaint surface. It should be performed on a blanket or yoga mat.

## **CLOTHES**

One should always wear loose, light and comfortable clothing one should remove spectacles, wrist watches and any jeweler before commencing yoga practice.

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### **BATHING**

One should take cold: shower before starting the practice.

### **EMPTYING THE BOWELS**

One should empty the bladder and intestines before commencing asana.

### **STOMACH**

The stomach should be empty while' practicing asanas. There should be at least three to four hours interval after food.

### **DIET**

It is better to eat natural food. It is advised to half fill the stomach 'with food, one quarter with water and leave the remaining quarter empty. One should follow the principle –'eat to live rather than live to eat'.

### **NO STRAINING**

One should not exert force by doing asanas. One should not strain. If one feels Discomfort in any posture, he should return from that posture and relax.

### **AGE**

There is no age' limit for practicing yoga.

### **CONTRA-INDICATIONS**

People suffering from sup disc suffering from chronic ailments and diseases, those who have re operating from surgery should consult a doctor or yoga expert before practicing asanas certain asanas should not be practiced by the people who are suffenng from cardiac problems. There should be at least six months interval after the surgery.

### **INVERTED ASANA**

One should not practice any inverted asana If there is gas or fermentation In the In the intestines, If the blood is excessively impure, during menstruation or in advanced pregnancy.

### **SUNBATHING**

One should not practice asanas' after a long period of sunbathing.

The above mentioned principles must be strictly adhered to in practicing asana, pranayama, kriyas, bandhas, madras and meditations.

### **Loosening Exercises (Sithilkarana Yakama)**

Some loosening and stretching exercises called SithilkaranaVyayama are introduced with help to make the body supple and flexible so that they aid in Asanas that are designed to conserve the energies and transform them to subtle forms of mental energies.

The first series of SithilkaranaVyayama are meant to achieve this goal of a good physique by proper training of mainly the muscles and the spine. They not only help in performing the asanas better by loosening the joints for patients of different ailments, but they also help in building up stamina and tolerance.

SithilkaranaVyayama as the name indicates are loosening exercises performed normally with speed and repetitions. These dynamic practices are akin to conventional Physical training exercise except that most of these practices involve flexing of the spine.

### **The Principles of SithilkaranaVyayama are to**

- (i). loosen the various joints in the body.
  - (ii). Flex the spine by repeatedly stretching relaxing the different muscles.
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### **The Objectives are to**

- (a). Remove the lethargy and tardiness in the body.
- (b). Develop the stamina of the body.
- (c). Discipline the body-mind complex.

### **Special Tips for good Learning**

- 1- Practice the exercises stepwise.
- 2- Count the steps slowly and perform the same with attention.
- 3- Check the performance of each step before increasing the speed.
- 4- Learn to synchronize each step in a group.
- 5- Increase the number of repetitions depending of your capacity.

### **Forward and backward bending**

- 1- Come to sthititadasana.
- 2- Stretch the arms straight above the head with the palms facing forward.
- 3- Inhale and bend backwards with arms stretched above the head.
- 4- While exhaling bend forward as much as possible.
- 5- While inhaling come up and bend backwards and go on rapidly to forward bending with exhalation.
- 6- Repeat 20 times with increasing speeds.
- 7- Gradually slow down and ultimately stop the practice.

### **Note:**

- I- Start slowly and gradually increase the speed with in your limits.
- II- You may also practice this while standing with legs apart when the arms will be moving between the legs.
- III- While bending forward don't let the hands touch the ground; swing them in the air backwards.
- IV- Always bend from the lower waist.
- V- Make the movement free, ease and flowing.

### **Side Bending**

- 1- Come to sthititadasana.
- 2- Keep the legs about one meter apart.
- 3- Raise the hand sideways parallel to the ground while inhaling.
- 4- Bend to the right till the right hand touches the right heel while exhaling. Bend in the same plane.
- 5- Look at the Palme of the left hand directing forwards. Come up with inhalation.
- 6- Repeat 4 to 5 times to the right and left side alternate.
- 7- Relax in sithilatadasana.

### **Twisting**

- 1- Come to sthititadasana.
  - 2- Spread the legs about one miter apart.
  - 3- Raise the hands sideways parallel to the ground while inhaling.
  - 4- Keeps the leg firm on the ground and twist to the right, keeping the right hand straight.
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- 5- Simultaneously twist the neck and look up the tips of the fingers.
- 6- Bend the left hand at the elbow to bring the hand close to the chest.
- 7- Come back while inhaling.
- 8- Repeat the same on the left.
- 9- Gradually increase the speed to your maximum capacity.

10- Repeat 10 to 20 rounds.

11-Slow down the speed and stop the practice.

12-Relax in sithilatadasana.

**Note:**

All twisting should be above the waist level. Keep the body below the waist, straight and firm and do not bend the knees.

**Jogging**

**Stage I: Slow jogging**

- 1- Come to sithitadasana.
- 2- Make loose fists of your hands and place them on the chest.
- 3- Collapse and relax your shoulders.
- 4- Start jogging on your toes slowly.
- 5- Jog about 20 times (As days go by, gradually increase up to 100 times).

**Stage II: Backward jogging**

- 1- Lean a little forward and increase the speed of jogging gradually.
- 2- Start hitting the buttocks with the heels.
- 3- Repeat this 20 times at your maximum speed.
- 4- Then gradually slow down the speed (Do not stop).
- 5- Continue and move on to slow jogging or at least 10 times.

**Stage III: Forward Jogging**

- 1- Lean backward a little and now as you increase the speed again try to raise the knees higher and higher.
- 2- Raise the knees forwards to reach the chest level.
- 3- Repeat 20 times at your maximum speed.
- 4- Slow down the practice coming back to the stage of slow jogging again.
- 5- Continue slow jogging for a few rounds, count 10 times.

**State IV: Side jogging**

- 1- Gradually increase the speed taking the heels side ways.
- 2- As the speed increases bring the heels as close to the elbows as possible.
- 3- Repeat this movement 20 times at your maximum speed.
- 4- Gradually slow down to come back to slow jogging stage.
- 5- Keep jogging a few more rounds (10 times) and finally stop the practice.

**Stage IV: Side jogging**

- 1- Gradually increase the speed taking the heels side ways.
  - 2- As the speed increases bring the heels as close to the elbows as possible.
  - 3- Repeat this movement 20 times at your maximum speed.
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- 4- Gradually slow down to come back to slow jogging stage.
- 5- Keep jogging a few more rounds (10 times) and finally stop the practice.

**Note:**

1. Increase the speed of jogging gradually and not too quickly.
2. Try not to stop at any stage of the practice until you have completed all 4 stages of jogging.
3. Keep the feast on the chest throughout the practice.

## YOGIC PRACTICE THE BEST PRACTICE

Practice makes men perfect. Yogic practice makes men physically and mentally fit. Many new schemes are launched by our Indian government to make our country super power. They are Digital India, Fit India, and Make India etc. In these fit India is related with our ancient practice yoga and meditation. In higher education, NAAC in criterion VII, the best practice which we follow in our institution. This practice without any bit of doubt will be considered a best practice.

## CONCLUSION

Yoga is one of the gifts of India to the humanity. The development of science brings in many inventions. They give complete comfort to the people. People slowly become the slave of comforts. They forget their holy past and neglect the importance of physique and mind. Many involve in worldly pleasures and their health and real happiness as the wage. To bring the directed man to the main track, and ensure uninterrupted happy life yogic practices are useful. The several yogic practices mentioned have strengthened their body and purify their soul. Taking medicine for the disease for the disease is a old method. The present wise method is preventing the disease. To present the disease yogic practices are immensely helpful During this pandemic the role of yoga especially the breathing exercise are very helpful to save the people from death. Life is valuable. Hence save life and live happily.

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## A STUDY OF JOB STRESS AND JOB SATISFACTION AMONG TEACHER EDUCATORS IN RELATION TO ORGANIZATIONAL CLIMATE

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### **Abstract**

The purpose of this research was to study the job stress and job satisfaction among B.Ed. teachers in relation to organizational climate. Random sample method was used to collect data from 200 teacher educators working in aided and self-financed B.Ed. institutions. Tools were used Occupational stress index (ISO) by Srivastava and Singh (1984), Job satisfaction scale by Singh and Sharma (2011). The important findings of the present investigation was that teacher educators of aided institutions experienced less job stress and more satisfaction in comparison to the teacher educators who were working in self-financed B.Ed. Institutions. The another important findings of the present investigation was that the organizational climate was negatively correlated with job stress and positively correlated with their job satisfaction.

**Keyword:** Job stress, Job satisfaction, Organizational climate.

### **INTRODUCTION**

India is a developing country. Its destiny is being shaped in her classrooms. The teacher is a paramount importance in any national system of education and every progresses of the nation depends upon the quality of its teachers. Teacher plays the pivotal role in the social reconstruction and the transmission of knowledge and experience of one generation to another. A teacher is the custodian of the culture, critic of social weakness, interpreter of change that are taking place; Pioneer of reforms and guide of the efforts of people. Children who are the real potential wealth of the nation are exposed to the teacher's influence. According to Hindus, the child receives second birth at the hands of the teacher. The teacher is the real maker of history. He is known as "nation builder".

Any system of education cannot be better without its teachers. The quality of education and the standard of achievement are inseparably interrelated with the quality of teachers.

For bringing about functional improvement in teacher education institution and consequently in school education the quality of teacher education is very important. A teacher should always be a model of his students. It is however, not only the knowledge of subjects and mostly the methods of teaching which are necessary for the teacher to be effective, but there are other factors too, his satisfaction on the job, he should be free from job stress and he should be well adjusted socially and emotionally. Satisfaction of teachers plays an important role in every society. If he

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is not satisfied, he will produce frustrated individuals, if he is not well adjusted, he will not produce balanced personality. In this regards, it seem appropriate to study the job stress, job satisfaction and adjustment of male and female teachers and hopefully to make improvement in that direction.

### **EMERGENCE OF THE PROBLEM**

The present time is the era of science and technology. The science is mainly responsible for development and progress. Today the teachers are greatly responsible for the student's future. Therefore the teacher should be physically and mentally strong so that they can achieve their objectives successfully. For a good teacher it is important that he should be free from physical and mental diseases.

To remain fit a teacher should therefore be out of stress. However if the teacher is subjected to excessive stress and strain, he can't maintain his mental balance. If not dealt seriously teacher's stress is one of the major factors influencing his teaching efficiency. If the teacher has job stress then he can't well adjustment with the organizational climate and can't feel satisfaction with his job.

A review of studies conducted in this area indicates that various researches have been done to find out the relationship between various variables linked with job stress, job satisfaction, and organizational climate. From the review it can be concluded that many studies conducted on job stress, job satisfaction, and organizational climate separately but there is no study conducted on job stress, job satisfaction in relation to organizational climate in the field of teacher education. Organizational climate play a great role in job stress, job satisfaction of the teachers, so researcher has curiosity to know that what effects of organizational climate on the job stress, job satisfaction among B.Ed. teachers of aided and self-financing institutions. In this context some questions arise automatically-

- Is there any difference in job stress, job satisfaction and among B.Ed. teachers working in aided and self-financed institutions.
- Is there any difference in job stress, job satisfaction among male and female teachers working in B.Ed. institution?
- Is there any difference in job stress, job satisfaction among B.Ed. teachers working in different organizational climates?
- Is there any relationship between job stress and organizational climate, job satisfaction and organizational climate?

Present study was undertaken because of its urgency. As such there are limited number of researches done in the area therefore attempt was made to fill this gap of research. It is expected that findings of the present study will guide the administrators, to make certain changes in their set up on the basis of results of this study so that teaching profession can be become more challenging, rewarding, attractive and appealing to the youth.

### **STATEMENT OF THE PROBLEM:**

A study of job stress and job satisfaction among teacher educators in relation to

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organizational climate.

### **OBJECTIVES OF THE STUDY:**

1. To study the job stress and job satisfaction of B.Ed. teachers working in aided and self-financed institutions
2. To study the organizational climate of B.Ed. institutions
3. To find the relationship of the organization climate with job stress and job satisfaction of B.Ed. teachers
4. To compare the job stress and job satisfaction of B.Ed. teachers, teaching in different organizational climate.
5. To compare the job stress and job satisfaction of B.Ed. teachers in relation to gender difference.

### **HYPOTHESIS:**

1. There is no significant difference between job stress and job satisfaction of teachers working in aided and self-financing B.Ed. institutions.
2. There is no significant difference in the organizational climate of aided and self-financed B.Ed. institutions.
3. There is no significant relationship between the job stress and job satisfaction of the B.Ed. teachers with organizational climate.
4. There is no significant difference in the job stress and job satisfaction of B.Ed. teachers teaching in different organizational climate.
5. There is no significant difference in the job stress and job satisfaction of B.Ed. teachers due to gender difference.

### **VARIABLE OF THE STUDY:**

#### **INDEPENDENT VARIABLE**

Organizational climate of B.Ed. colleges/ institutions, gender of B.Ed. teachers are taken as an independent variable.

#### **DEPENDENT VARIABLE**

In the present study Job stress and Job satisfaction of B.Ed. teachers are taken as a dependent variable.

### **METHOD OF THE STUDY:**

In the present study the descriptive survey method of research is selected because the problem concerned with the present times.



### **SAMPLE OF THE STUDY:**

Random sample method was used to select aided and self-financed B.Ed. institutions. All the units of selected institutions are taken as a sample of the study.

### **TOOLS TO BE USED:**

The following tools were used to collect data to conduct study.

- Occupational stress index (ISO) by Srivastava and Singh(1984).
- Job satisfaction scale by Singh and Sharma(2011).
- Organizational climate inventory by Soam Nath Chattopadhyay & K.G. Agarwal(1996).

### **RESULTS AND DISCUSSION:**

Keeping in the view the findings it can be concluded that–

1. B.Ed. teachers of aided institutions experienced less job stress than self-financed institutions' B.Ed. teachers. The causes of more job stress in self-financed B.Ed. institutions' teachers are more job demand, strenuous working conditions, powerlessness, impoverishment, role overload, ambiguity & role conflict, poor peer relations and low status in society.
2. B.Ed. teachers of aided institutions were highly satisfied as compare to self-financed institutions' B.Ed. teachers. Job security, wages and financial gains, incentives, occupational and social status, responsibility, recognition, participation and respect for creative suggestion, safety and medical care, working conditions, subordinates and bosses, life satisfaction, value formation and development are the major factors that affect the job satisfaction of teachereducators.
3. Aided B.Ed. institutions have better organizational climate rather than self-financed B.Ed. institutions. Responsibility, warmth and support system, organizational structure, decision making process, performance standard, communication flow, reward system, conflict resolution, motivational level, and identity problems are the major dimensions that create organizationalclimate.
4. The job stress of B.Ed. teachers was significantly negatively correlated with organizational climate. The teachers who are working under good organizational climate have less stress with their job and the teachers who are working under poor organizational climate have more stress with their job. The reasons for the above mentioned results may be that as rich climate of the institution could be attributed towards better service conditions in term of democratic functioning of the institutional head, tension management, teamwork, cordial relationship among the teacher educators, obedient and well disciplined students, favorable support and environmental facilities etc. All these factors may be helpful to the teacher educators in reducing their level of



job stress.

5. Organizational climate play the positive role in the job satisfaction of teacher educators. The teachers who are working under the good organizational climate are more satisfied. The teachers who are working under poor organizational climate have low satisfaction. Job security, rational load of timetable, equal distribution of job responsibilities, reward system, motivation, support and impartial approach of authorities are the major factors of organizational climate that are responsible in enhancing the job satisfaction of teachers.
6. On the basis of findings it clearly revealed that gender difference does not play any role in the level of job stress. In other words we can say that level of job stress of B.Ed. teachers is independent from their gender differences. Job stress is same nature of job and working conditions are almost same. The results indicated that job stress was related to high job demand and low job decisions latitude.
7. Male and female B.Ed. teachers of aided institutions have equal degree of job satisfaction. While self- financed B.Ed. female teachers are less satisfied than their counterpart male teachers. In spite of being equally qualified and doing the same duties, the female teachers are giving low salary in most of the self-financed institutions. Most of the self-financed institutions are situated out of city. The female teachers have to face various difficulties in reaching their respective institutions.

#### **EDUCATIONAL IMPLICATIONS OF THE STUDY :**

1. This study can make the principals, teacher educators, policy makers and authorities aware about the job stress and job satisfaction of teacher educators. The knowledge of factors affecting the job stress and job satisfaction can be used in developing the job satisfaction and reduce the job stress among the teacher educators.
  2. The important findings of the present investigation is that B.Ed. teachers of aided colleges/ institutions experienced less job stress and more satisfaction in comparison to the teachers who are working in self-financed B.Ed. institution. So, in this respect first of all teacher educators and administers should try to create a healthy, co-oprative and democratic environment in self-financed B.Ed. college and should bring awareness to the job stress and jobsatisfaction.
  3. The another important findings of the present investigation is that the organizational climate was negatively correlated with job stress and positively correlated with their job satisfaction. So all teacher educators and administers, policy makers should try to create a healthy and rich organizational climate of B.Ed. college/ institutions. Because If organizational climate of B.Ed. institutions is poor, job satisfaction and job stress will behigh.
  4. Present study will provide so many information on the basis of conclusion drawn from the study of job stress and job satisfaction in relation to
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organizational climate among teachers working in aided and self-financed B.Ed.institutions.

5. Conclusion drawn from the study will be helpful to the principals, administrators, management committees take improvement in teachers job satisfaction and reduce job stress specially in self- financed institutions.
6. The study may develop an insight to authorities so that they can find reasons of job stress and job satisfaction of teachers.
7. The result of study may provide the ways of solving the problems related to job stress, job satisfaction.
8. The findings of the study will open the door for various type of co relational studies adhering to the organizational climate and its adjoining factors.
9. The findings of the study may be helpful for policy makers in teacher's training at secondary level as well as other levels to implement appropriate improvement in organizational climate of teacher' training institutions.
10. The findings of the study may be helpful to policy makers to decide better and new job parameters, norms and standards for teacher educators.

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## SEXUAL ORIENTATION: INDIAN REALITY AND REFORMS

Dr Sheetal Singh

### ABSTRACT

In this paper report different aspects related to the LGBT community are mentioned. An introduction to the LGBT community and the meaning of the terms that it comprises of. It also reads the mindsets of the people and their traditional thoughts that are bound by an old-fashioned custom. The world sees the individuals of this community in the very different manner than what we see it as. There are different international scenarios for different nations all over the world where some countries accept the essence being Gay or Transgender other countries considers it a shameful act and has punishments structured under its statute. India as a diversified nation with qualities like being secular, social, republic and others embodied in the preamble of its constitution makes a way to the progressive thinking of the society and with repealing of Section 377 it once again tells the world that the opportunities are equal and each of its citizen has the right to freedom of expression and to love who they want to. There are a few more steps the country and society can take to establish the concerns and to change the thoughts of people who still consider talking about sex a taboo in the society and that there is no problem with the people who have a different sex orientation or who are sexually in a relationship with the same gender or sex. India is a liberating county with the thoughts of the millennial and we hope that with the growing advancements in various fields the LGBT community too is recognized as one and not different and that they too get the dignity and respect that is the right of every citizen living in this country.

### INTRODUCTION

LGBT. What is the first thing that comes to your mind when someone mentions this term in front of you? Is it something that affects you? Something that you should know about? Something that bothers you or your family? Around the world people experience discrimination, violence and inequality and even torture. If that isn't enough there is also execution of people because of who they love, how they look, or who they are. Sexual and gender preference are important areas of us and the society and it is our duty to take care of the people who suffer abuse and gender discrimination.

They are one of us and deserve the same respect and dignity of life as we need it. An article 21 of the Indian Constitution guarantees 'Right to Life and Liberty' to its people but are we all equally prone to that opportunity. In a country like India where there is diversity of cultures, religions, castes and communities is it correct to judge someone on their sexuality and considering them impure just because they demand their freedom to love, to express themselves and to be accepted with the same dignity and with equal opportunities as others do.



One can easily call someone gay, lesbian or "hijra" or a transgender without actually knowing the difference and without any knowledge of facts. LGBT stands for Lesbian, Gay, Bisexual, Transgender. It is often misinterpreted by the society. People who belong to this community are different but that doesn't make them unwanted or unacceptable in the society. There are still so many cases that are still pending in the courts and do not get justice because it's considered of less importance. Families often disown their children when they get to know that their sexual orientation differ from the rest. There shall be special rights that need to be enforced and implemented to give these people their freedom and to live and love. Along with a proper implementation of legislation there needs to be awareness programs and verbal communications and conversations with this regard. Nothing will be favorable unless we talk about it openly and not consider it as a taboo in society.

The abbreviation LGBT doesn't requires a presentation. A large portion of the individuals in India put stock in disregarding it or decline to give it the meriting legitimacy. This by itself is the explanation that a network needs to battle for rights so fundamental that it is very nearly a disfavor for the ones contradicting it. India has been a place where there is changed societies and practices since until the end of time. In spite of the fact that it has been contended enough, homosexuality is as old as time as well. In any case, in the present day, the woeful condition of the network involves most extreme disgrace all around the world with some countries accepting the difference of thoughts while others just following the orthodox and traditional customary practices.

## THE INTERNATIONAL OUTLOOK

People of the Western countries have implemented a lot of legislations with regard to Gays and Transgender along with their acceptance. Equal marriage or same gender marriage laws are being passed in a few nations, where USA has progressed with it other countries like in Russia, life develops harsher every month for LGBT individuals. In Russia, gay young people are being tormented and persuasively outed on the web against scenery of laws that watch totally out of venture with the remaining of Europe. The nation additionally now has forces to capture and keep outside natives accept to be gay, or "professional gay". It has prompted the blacklist of Russian vodka marks by gay bars and clubs in solidarity, began by essayist and dissident Dan Savage and taken up by bars in London.

Russia is one of the countries where gay rights are moving further away from other European nations. In an extraordinary variant of Britain's section 28, another law will lead to punishment of anyone who spreads the publicity of non-conventional sexual relations or same gender relationships among minors or individuals aged less than 18 years had communicated in dissemination of data that went for the arrangement of misperceptions of the social similarity of customary and non-customary sexual relations. It has additionally neglected to follow the 2010 judgment at the European court of Human Rights that expects it to permit gay pride occasions and celebrate their dignity. Brutality and disinterest against the LGBT individuals is rising. There was a ruthless homicide of a man who had uncovered to his colleagues and friends that he was gay.

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Some places of Latin America remain the standard for equal treatment for LGBT rights. Argentina's Gender Identity Law 2012 permitted the difference in sex on birth testaments for transgender individuals. It additionally authorized same-sex marriage in 2010, giving same-sex couples indistinguishable rights from inverse sex couples, including the privilege to embrace youngsters. Uruguay and Mexico City likewise permit equivalent or same sex marriage and reception, and recently Colombia too perceived its first lawful same-sex common association which is not marriage<sup>1</sup> but just another form of being together with the person from the same sex.

In Asia, LGBT gatherings are making progress, assuming gradually. Few years back Vietnam saw its first gay pride rally and the current year's occasion will dispatch a crusade for fairness in business. It was accounted for that the nation's service of equity that has upheld plans to legitimize gay marriage, after the service of wellbeing of the Health Ministry that has turned out for marriage of equal sex valid. In Singapore the Pink Dot pride rally pulled in 21,000 individuals for the awareness of LGBT community and this proves to us that Singapore is not traditional and conservative in its thoughts. The nation bans gay sex though, however this is very rarely and unimportantly implemented, yet a gay couple, Gary Lim and Kenneth Chee, endeavored and pleaded before the court of justice to get this law expelled. Their case was rejected, yet they are still going strong for their appeal and they continue to fight.

The countries which have been seen as the most corporative are listed as the Middle East, the South and east of Africa, south of Asia persevere with the most draconian methodologies. West Europe and the western half of the globe are the most tolerant which includes USA to be on the top of the list. Be that as it may, Britain was in no way, shape or form a leader when it moved 50 years prior to incompletely decriminalize homosexuality. Nearly 20 different nations had just driven the way, including Belgium, France, Brazil, Netherlands, and Argentina are nations where every one of whom had legitimized and made dignified laws before 1900 which has certainly proved to be for the betterment of the LGBT community. In some of the Muslim countries like Sudan, Iran, Yemen and Saudi Arabia, different gender orientation or homosexuality is as yet a cause of being guilty of a death sentence which is also mentioned under the under sharia law of the Muslim religion.<sup>2</sup>

Also there is no proof that supports or proposes that it has been executed or implemented for consensual same-sex acts and intercourse between the grown-ups in private and not the public areas. Same-sex relations or individuals with different sexual orientation are differently condemned under the laws, rules and regulations that cover homosexuality, buggery and the acts that are considered to be against nature among others that could prompt someone to a jail sentence. In total there are such 71 states on the whole. Nonetheless, this number prohibits Egypt to be a country, where same-sex relations are in fact legitimate however are vivaciously sought after and where many individuals are accounted for to be kept on profound quality grounds. Out and out, in

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<sup>1</sup>The Guardian-July 30 – Gay Rights world best and worst countries [www.theguardian.com/world/2013/jul/30/gay-rights-world-best-worst-countries](http://www.theguardian.com/world/2013/jul/30/gay-rights-world-best-worst-countries)

<sup>2</sup><https://scroll.in/article/928317/in-pride-month-indias-lgbt-community-could-be-even-prouder-if-it-healed-internal-divisions>

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excess there are about 120 nations that have decriminalized homosexuality or same gender relationships.

The legislative progress is slow and there are a very few legislations to support these individuals but the social taboo and social perspective about the community is painstakingly very slow but in the coming years it is going to make a mark and the traditional customary thoughts and ideas of people will go for a change. With all the negative thoughts around the world there have been some positive achievements too for countries like Kenya, Tunisia, Botswana and Zimbabwe have had advocates and supporters as to have won court cases and attaining justice for the community along with the attesting privilege to frame associations to campaign for rights and dignity for LGBT individuals

### **INDIAN PERSPECTIVE**

June 28 imprints a long time since the New York City police assaulted the Stonewall Inn, setting off a progression of fights by the city's LGBT individuals or group that demonstrated to be an imperative impetus in the development against segregation. After thirty years, the long month of June proceeded to be assigned as the Pride month, rousing the network over the globe to turn out and go as for freedom to love for them proudly. Following this in 2001 the Uttar Pradesh government and police struck the premises of the Naz Foundation in Lucknow along with the Bharosa Trust. These two worked in the sphere of HIV counteractive action. Out of four men, Arif Jafar was one of those who drove the two associations in the city and since then they were imprisoned for exceeding 40 days as the police asserted that their HIV/AIDS projects were the front for a sex racket and that by no means were they doing a favour to the society. In a couple of days of the arrest the queer and LGBT group came out in huge numbers and unified gatherings sorted out fights in a few urban communities. Soon thereafter, the assaults incited the Naz Foundation to appeal to for Section 377 of the Indian Penal Code, which condemned homosexuality and criminalized acts of intercourse with the same gender or sex, to be perused down. This was most likely the main coming together minute for all tints of the LGBT people group and a movement started with this outrage that each individual deserves their freedom to love and live with dignity and make decisions freely.

The development of these groups and individuals today, however, isn't as bound together or noticeably comprehensive as we may assume it to be. It mirrors the polarization with which the areas and parts of India lives, as networks are isolated between belief systems of human value or their rights with correspondence and furthermore along lines of religion, status, caste and class or community one belongs to. For the LGBT individuals or groups, there is a mere contrast noticed between the individuals in the two metropolitan cities of Delhi and Mumbai. Whereas the latter has been available to corporate cash, enabling corporate logos to be shown at Pride even before Section 377 was perused down. The former time and again, has attempted to stay autonomous, fund-raising from the network. Network of individuals in every city crosswise over India have settled on their own options, opinions and have been regularly seeming inaccessible from one another and now and again even separated.





The closest the LGBT community got to being at a point of being united and as one was when the network got to being in agreement at which the Advocates and Legal Practitioners came forward and held out national meets over the previous decade to examine the body of evidence against Section 377 and how it was faring in the courts and in the way of justice. The most joyous collective display of their strong bond and of aggregate bliss happened last September, when the Honorable Supreme Court at last read down Section 377 and decriminalized the act of having same sex or same gender sexual intercourse. It was indeed a historic victory and a day to celebrate for not only the members of the LGBT community but for the whole country.

There have been a couple of incidents where we can see examples of justice being delivered with the utmost thoughtfulness and dignity for the individuals of this community by our learned courts. The Madras High Court in April maintained transgender marriage rights and when our international medal sprinter Dutee Chand in May declared that she was in an equivalent sex relationship or belong to the LGBT group which comes as one of the greatest achievements of our judiciary. Yet, when we talk about change it is often seen that political connections and influences do not help in the progressive thoughts rather it often moves the motive to another topic and the real fight is lost. One of the examples from the past was the decision on repealing Section 377 as when it came to the Lok Sabha elections and the discussion on the post-Section 377 sense of freedom, the debates and discussions carried our thoughts and focus from development of human rights and to the personal political and economical preferences. It would have been a great opportunity to attract the LGBT community and grant them their rights of freedom and love and make a rational progressive development for India. Simultaneously, the LGBT development has obtained a scope of freshly discovered partners, from magazines awakening to the style statements to enterprises plotting for our pink rupee, guaranteeing practically medium-term that they are comprehensive of a change in the society and that equality shall prevail over all.. Indeed, even some bollywood film stars names have turned out to state how okay and ordinary they are with having a sexual relationship with same gender and that India ought to permit same-sex relationships and marriages to support difference in genders and their preferences in this battle of the sexes. But this kind of love and support is only seasonal or festive and change according to their profits and losses. There are still a lot of people who need to come out in open and accept their sexuality. There will always be hate and violence for this community or group of individuals because of the orthodox and traditional individuals still existing in a country like ours.

While there has been developing progress of individuals there have also been developing contempt of violations as well that was announced and unreported in the country. For example there was a report of a lesbian being tied to a tree and beaten in Odisha in May just because her sexual preferences were different and the various assaults on trans-sexual orientations in different areas of the nation were threatening and disappointing. Some gay talks has apprehended applications that has brought about a coercion cases. While the recently discovered opportunity after Section 377 is basically a mark of not being criminal, it is nothing near to the opportunity that every other person has as being the citizens of this country. The LGBT group is tormented in schools and universities, oppressed at the working environment, denied legacy rights

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and medical advantages and obviously, prohibited a legitimately perceived marriage and to have a family through adoption. The issue is that, now that the LGBT development in India is deprived of a heading and a role in the society. There is no concentrated framework that coordinates perspectives and musings to build up a methodology on what should come straightaway to them as rights and opportunities.

### **TRANSGENDER LAW**

The Transgender Bill was presented in the Lok Sabha in late December 2018 and The Transgender Persons (Protection of Rights) Act, 2019 is an act of the Parliament of India with the objective to provide for protection of rights of transgender people, their welfare, and other related matters. The act was introduced in the Lok Sabha, the lower house of the Parliament, on 19 July 2019 by the Minister of Social Justice and Empowerment,.

### **IMPORATANCE OF A SAME SEX RELATIONSHIP**

Sexual orientation is a person's choice or concern and no third person from the society can tell him/her or force their personal opinions on an individual who thinks differently and has a different sexual orientation. There are endless manners by which individuals play out their sexual relationships where they maybe straight, homosexual or Trans. These incorporate harmless appearances and things like hairdo, garments, air, proficient decisions, and the rundown goes on. Strikingly, notwithstanding, sexual orientation isn't openly picked or viewed as liquid, It is natural and not against the laws of nature. A person is born with their preferences and rights. Individuals are constantly doled out sexual relationships that are dependent on the sex they're resolved to be during childbirth. The predominant talk sees sex as a parallel of female and male, even as we've seen slight, dynamic changes in this mindset of late and progress is slowing reaching its aim with awareness. However, in a situation where any person from the LGBT community or trans individual can confront the anger of the general public for acting in a 'degenerate' way. It should be recalled that even the individuals don't completely fit in with the parallels and with the fact that nobody is born perfect. On the other hand, nobody totally adjusts to the social problems related with their sexual orientation or liking for the same sex. Given this, the right method for discovering an individual's sex is by how the individual feels inside and distinguishes and what his preference is. If a boy is attracted to another boy or if a male showcases female interests and wants to dress up like a female then the society needs to accept that and let them live the way they want to. They have been given the same life that others have been given then why is that we discriminate and torture them just because their sexual preferences are different from ours or the don't follow the rules and regulations of the society.

We further need to comprehend that sex as we see today is social in nature and not taboo anymore. People can talk about it openly and discuss it within their groups and families. Even while giving opportunities here too we misleadingly make a paired qualification into male and female and distinguish between what a gender deserves from our perspective and from not what they deserve. This prevailing conviction is limited by the

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way that there are a greater number of instances of intersex babies than we'd like to recognize and help the growing population to exceedingly exceed the resources altogether. Our fundamental notion is that a trans individual may feel the need to in a specific sexual relationship yet they'll generally have a place with their naturally doled out sex and hide it deep in their hearts in the fear of not being judged or being questioned by the society. It further fortifies that an individual can totally relate to a specific sexual orientation simply in the wake of having experienced the Sex Reassignment Surgery. This could conceivably be a choice people need to take. If we talk about being fundamentally right it is a basic idea or thought to see sexual orientation and sex as a range. And with all the pressure this is the thing that the transgender insurance bill neglects to do. It gives the trans community rights but at the same time it holds back their dignity.

### **THE COMMUNITY THAT IS OPPRESSED AND DISCRIMINATED**

Given and seen the sort of society we live in it takes an inconceivable measure of a fearless community to deal with one's way of life as a trans or homosexual individual. Our heteronormative or traditional society conditions give us morals and ethics to view sex and sex with the opposite gender to be the law of nature whereas the sexual orientation is expected to normal that relate with one's sex i.e. girls should be sexually involved with a boy and vice-versa. Obviously, to understand that the two don't go together can be indecisiveness of a wellspring of extraordinary passionate misery and violation for people. This is known as sex dysphoria. This just gets exacerbated by the way that any 'degenerate' character can summon a genuine reaction from the network. Tragically, this kickback by and large starts first inside the family which should love us unequivocally without any conditions and acknowledge us for what our identity is and who we love or have sexual preferences with. Living in a general public where their personality was acknowledged as genuine just as of late as 2014 inferable from the Supreme Court judgment where the trans network has with time and again needed or felt the need to fall back on begging and prostitution for their sustenance and for a livelihood. Because they have no means to sustain themselves and their parents and families had disowned them because they were either biologically not fit or were different. This 2014 landmark judgment regardless of the general public thoughts and opinions keeps on being unfriendly towards the transgender individuals and the LGBT community, given that a number of them have been confronted with violations at their particular work environments and because of which their opportunities have decreased too. Examples that we can name out of a number of occurrences are Manabi Bandhopadhyay and Saba Giri. On the off side the chance that this wasn't sufficient, the arrangements of the Trans bill are with the end goal that they'll wind up accomplishing more damage than anything else to the network has been the biggest mistake of the society and the people who still think of LGBT individuals as a shame to the society and disregard them due to their differences

### **OUR ROAD MAP TO LGBT EQUALITY IN INDIA**

The possibility of human rights lays on the focal reason that all people are equivalent and deserve equal behavior with dignity and life. It pursues that all people have nobility

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and all people ought to be treated as equivalent. Anything that undermines that nobility of person belonging to LGBT community is an infringement, for it disregards the guideline of correspondence and prepares for segregation.

The human privileges of lesbian, gay, promiscuous, transgender and intersex individuals are coming into more keen concentration around the globe, with significant advances in numerous nations lately, including the reception of new legitimate insurances. The preface to the Indian Constitution orders equity - social, financial, and political equity of status and opportunities for all. The privilege of uniformity and dignity under the steady gaze of law and equivalent assurance under the law is ensured in Articles 14 and 21 of the Indian Constitution. In April 2014, the Apex Court of India led in NALSA vs Union of India that the rights and opportunities of transgender individuals in India were secured under the Constitution and in September 2018, the Supreme Court likewise decriminalized grown-up consensual same-sex connections in the Section 377 judgment audit. These decisions are viewed as a milestone both as far as their extensive perusing of sacred rights and in engaging LGBT people. The two decisions mark a significant minute for LGBT rights and individuals that not just switched a relic of British supreme guidelines yet additionally requested that LGBT Indians be agreed every one of the insurances of their constitution and that they are no different. This was an invite triumph, yet it doesn't really imply that LGBT individuals in India are completely free or seen as equivalent among their kindred natives. It underscores how much work still needs to be done in India and the remainder of the world to topple the outdated and abusive enemy of gay and transgender laws.

India is a diversified and culturally involved nation and the mentalities of the people towards this subject and encounters of LGBTI people fluctuate incomprehensibly. The uniqueness among urban and provincial India, language, rank, class and sexual orientation add further complexities to understanding this subject all the more completely. In any case, what we can be sure of is that India's LGBT natives are not a very little minority rather they are large in numbers to count upon. They have a voice that is solid and will not be quiet any more extended in their endeavors to recover equity.

Kerala was one of the very first Indian state to enact social equality for transgender individuals in 2015, after the milestone 2014 Apex Court judgment that perceived the network as the third sexual gender. However in Kerala, frames of mind towards transgender individuals stay like those in parts of India that are viewed as less socially created. So with the draconian Section 377 gone, what can we expect the road to future be like? Today we praise the International Day Against Homophobia and Transphobia 17<sup>th</sup> May was explicitly picked to celebrate the World Health Organization's choice in 1990 to declassify homosexuality as a psychological issue. This day has gotten official acknowledgment from a few states, global organizations as the European Parliament, and by incalculable nearby specialists. Most United Nations organizations likewise mark the event with explicit occasions. LGBT individuals in India likewise live in dread of being judged by the ever judgmental society and by human services experts or medical practitioners which is the reason they will in general conceal their sexuality from them. It isn't hard to see that this affects their mental wellbeing. It is, thusly, imperative to give extraordinary consideration to the emotional well-being measurement of LGBT

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rights. The pressure that the failure to express one's strangeness forces on an individual is in itself massive. A valid example is Dutee Chand who is India's quickest lady competitor, who likewise turned into the primary Indian competitor to turn out as lesbian as of late. She uncovered how much mental weight that she had been held under by her sister, who, Chand stated, used to compromise her in the wake of coming to know about her sexuality. The kickback and dismissal she has been exposed to by her family subsequent to turning out more likely than not damaged her further.

As a trans woman from India who was one of the first applicants in the NALSA case, one can say how far we have come. However, there is still a lot of those remaining parts to be done if the social equality of LGBT people in India are to be ensured. We have to totally and intelligently go through the natural rights to characterize ourselves in or claim terms and in our own dialects. We reserve the privilege to convey what needs to be there and done and our characters unafraid of brutality or revenge. We are individuals, holders of human rights, and we have to be perceived in that capacity inside the social orders we live in.

## **RECOMMENDATIONS**

LGBT activists have arrived at huge achievements over the previous couple of years. How might they accomplish more?

### **1. Empower LGBT activism**

This initiative was limited amongst a very LGBT people and groups. Presently there are 5 LGBT driven gatherings and one sex laborer bunch that have met up to consider how to push forward rights safeguard and assurance concerns. At the point when we had started this awareness regime, there was simply only UniBAM.

### **2. More initiative from the UN**

It's time that the United Nations turns out to be increasingly proactive. Cedaw is probably the most grounded device ensuring the rights of the females. At the point when you have solid United Nation components with sufficient potential outcomes of implementation this can be perhaps the best thing for LGBT individuals and community and their rights.

### **3 Release of parental control and thoughts**

The way people see of the LGBT individuals is the thing that in the end rolls out the improvement and results that are conceivable, in spite of the fact that in specific spots it can prompt the loss of one's activity or the loss of the help that one's family possess and even passing dangers and risks in everyday life. One can surely know why many fear turning out and coming out in open. One viable system is to include guardians of LGBT individuals in open activities: this encourages battle against endeavors to dehumanize LGBT individuals.

### **4 Stop the brutality all over the place**

Our immediate issue this year is against LGBT brutality and violence. To destroy viciousness, we have to work together with other social equity developments in light of the fact that at last what we need to change is the way of life of the LGBT community. That is a tremendous assignment.



### **5 Use TV and movies to change hearts and psyches**

All through time media promotion has been an adaptable and successful device to contact mass crowds and develop acknowledgment. The media helped exponentially develop the turning out in the crowdthrough which different Americans realized what LGBT implied and who we truly are. Something other than actualities, figures, measurements and good moral discussions, we are siblings, sisters, children, little girls, neighbors and associates. With Bollywood industry and Hollywood being America's biggest social fare, this substance will help change hearts and psyches all inclusive also.

### **6 Take cases to the courts**

On the off chance that LGBT individuals live in nations that have protected rights that assure equivalent rights and opportunities, at this point one should utilize the courts to challenge oppressive laws and arrangements. Winning each case makes the following one simpler, offer the media the chance to report the issue and the general population to discuss. It additionally offers motivation to individuals who are reluctant to express their direction or sexual orientation.

### **7 Commend activists**

The worldwide LGBT community has become gigantically throughout the most recent three decades, a huge number of individuals around the globe buckle down each day to change their separate neighborhood and national networks regular, and this change is ending up increasingly genuine. To credit crafted by every one of these activists can be likewise a powerful method to advance our privileges



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**DISHONEST AND FEELING RESILIENT: EXPLORING THIS RELATIONSHIP  
AMONG UNIVERSITY STUDENTS**

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**Abstract**

The present study was conducted to determine whether any relationship exists between academic Dishonesty and academic Resilience among undergraduate students. For this purpose, the Academic Dishonesty Scale by Hilal Bashir and Ranjan Bala (2018) and Academic Resilience Scale by Muhammad Sarwar, Hafiz Inamullah, Naemullah Khan and Nadeem Anwar (2010), were used. The study was conducted on 225 undergraduate students of Aligarh Muslim University selected through simple random sampling method. Correlation technique was used to analyze the data. The findings revealed that academic Dishonesty and academic Resilience are significantly negatively correlated with each other. Also, social support (a dimension of academic Resilience) was the strongest negatively correlated dimension with the academic Dishonesty reflecting that the lack of social support was one of the key factors that motivated students to indulge in academically dishonest practices. The study also showed that males had a higher significant negative correlation between academic Dishonesty and academic Resilience as compared to females. The result of the present study highlighted that rural students had a high correlation between academic Dishonesty and academic Resilience in comparison to urban students. Findings also revealed that the students of the Faculty of Arts had a higher negative correlation between academic Dishonesty and academic Resilience as compared to the students of the Faculty of Science.

**Keywords:** Academic Dishonesty, Academic Resilience, Plagiarism, Undergraduates Students.

**Introduction**

Present era is the era of knowledge explosion. Education has become the necessity of every individual. Students are trying to get more and more education to meet the changing requirements of the society and become a knowledgeable citizen of the country. But there are some students who are unable to get good grades due to one or the other reason. But due to the demand of the changing world there is a kind of pressure upon them to perform academically well. So, in such situations they move towards the unwanted practices to get good grades. These unwanted practices come under academic dishonesty. Contrary to such students, there are some others who are determined to perform well even in the adverse situations. This ability to bounce back from the adverse situations successfully without using any unfair means is regarded as academic resilience.

**Academic Dishonesty**

Although academic dishonesty does not have a universal definition, different educational institutions take it in different ways. Academic dishonesty has been recorded in every type of educational setting from elementary level to graduate level.

Academic dishonesty refers to committing or contributing to dishonest acts by those engaged in teaching, learning, research and related academic activities. It applies not just to



students but to everyone involved in the academic environment (Cizek, 2003; Whitley Jr. & Keith-Spiegel, 2002).

Academic dishonesty may be defined as the use of unauthorized means by a student with the intention of deceiving an instructor or any other person who may evaluate the student's work in an academic setting. It is related to any act that misrepresents the students' work in the evaluation process.

Academic dishonesty has many forms such as plagiarism, fabrication, deception, cheating, sabotage, etc. Academic dishonesty, academic misconduct and academic fraud are the related concepts that refer to various actions on the part of the students that go against the expected norms of a school, university or any other learning institution.

### **Types of Academic Dishonesty**

There are various types of academic dishonesty. Some are obvious, while some are less obvious. Cheating, plagiarism, bribery, misrepresentation, conspiracy, fabrication, collusion, duplicate submission, academic misconduct, improper computer/calculator use, improper online tele web and blended course use, disruptive behavior, etc. are some of the types of academic dishonesty.

Academic dishonesty can take many forms, which can be broadly classified as follows (Whitley Jr. & Keith Spiegel, 2002, Pavela, 1978; Stern & Havelick, 1986)

1. **Cheating** – It involves unauthorized use of information, materials, devices, sources or practices in completing academic activities. For example, copying during examinations, student who allows other students to copy from his/her work contributes to cheating.
2. **Plagiarism** -Plagiarism is adopting someone's ideas, words, designs, arts, music, etc. as his/her own without acknowledging the source or when necessary, obtaining permissions from the author. For example, copying and pasting material from a website into your own document without paper citation.
3. **Fabrication/falsification** – It involves the unauthorized creation or alteration of information in an academic document or activity. For example, artificially creating data when it should be collected from an experiment or making up a source of information that does not exist.
4. **Sabotage** – Sabotage involves disrupting or destroying another person's work so that the other person can't complete an academic activity successfully.

### **Causes of Academic Dishonesty**

Literature on academic dishonesty cites a number of factors that contribute to dishonest academic practices (Whitley & Keith-Spiegel, 2002). Contributing factors include:

- Peer pressure
- Performance anxiety
- Excuse making
- Inability to manage demands of student life
- Situations encouraging academic dishonesty
- Self-justification habits
- Unfamiliarity with what constitutes academic dishonesty

### **Academic Resilience**

Resilience may be defined as the ability to succeed despite adverse circumstances or the ability to achieve good educational outcomes despite unfavorable situations.

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In a general sense, resilience has been defined as the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances (Howard & Johnson, 2002). In the academic context, it is defined as students' ability to deal effectively with academic setbacks, stress and study pressure (Finn & Rock, 1997; Gonzalez & Padilla, 1997; Catterall, 1998; Overstreet & Braun, 1999).

Referring to the ability to succeed in school despite adverse conditions, academic resilience includes components such as confidence, sense of well-being, motivation, an ability to set goals, relationships and stress management (Christine De Baca, 2010).

M Rutter (1987) identified two components of academic resilience in children and adolescents – Individual Factors and Environmental Factors. Individual factors include optimism, self-esteem, direction, determination, perseverance and problem-solving skills. These factors can be enhanced in an individual after suitable identification process. Environmental factors comprise both Environmental Risk Factors and Environmental Protective Factors. Environmental Risk Factors include poverty, family dysfunction, lack of social support, gender specific prohibitions, etc. Environmental Protective Factors include parental skills, role models, respectful communication, family support and guidance etc. These factors are beyond the control of the individual.

Martin (2001) developed a psychological and engagement dimension model and linked it with academic resilience. According to the model, motivation is critical to academic success and academic gains. It helps in strengthening academic resilience among students. This model divides motivation into adaptive and maladaptive dimensions. Adaptive dimensions show enhanced motivation factors which comprise of self-efficacy, valuing of school, mastery orientation, persistence, planning and study management. Maladaptive dimensions show reduced motivation factors which comprise of anxiety, uncertain control, failure-avoidance and self-handicapping.

Different studies show that resilience is determined by the interaction of different factors such as biological, psychological, social and cultural factors.

In her book “Student Success in College: Doing What Works! A Research-Focused Approach”, Christine Harrington defines academic resilience as – “... the ability to preserve despite negative academic experiences”. She also lists seven elements of academic resilience:

1. Self-confidence
2. Risk-taking
3. Optimism
4. Willingness to learn from mistakes
5. Concern about what you can control not what you can't
6. A strong network of trusted people
7. Efforts to build connections on campus

Studies show that resilience has a positive influence on the academic performance and success of students, which in turn influences their social and emotional well-being.

### **Review of Related Literature**

Previous researches on Academic Dishonesty have taken into consideration various forms of misconduct (Kidwell & Kent, 2008 and Wiltherspoon et. al., 2010), factors giving rise to academic dishonesty (Ahmad et. al., 2011) and various measures to discourage it among students of different professions and at different levels (Katoch, 2013 and Hodgkinson et. al., 2015). Researches have also been conducted to show how academic dishonesty is associated with other variables like demographic, personal, situational, contextual, etc. (McCabe & Trevino 1997 and Miller & Izsak, 2017).

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Previous researches on Academic Resilience have been conducted to show how to define Academic Resilience, determinants of Academic Resilience and the ways to enhance resilience among students at different levels (Southwick et, al.,2014) and also various factors contributing academic success (Erhan Sinay, 2018). The researches also attempted to show the relationship of academic resilience with different variables like academic stress (Wilks & Spivey, 2010) and self-efficacy (Simon, 2015).

Apart from this, the investigator could hardly find any study which was carried on to explore the relationship between Academic Dishonesty and Academic Resilience. The present study is a humble attempt to highlight any relationship between Academic Dishonesty and Academic Resilience among undergraduate students. The study will also be analyzing the relationship in the light of gender, locality and streams of the undergraduate students.

### **Significance of the Study**

Academic Dishonesty has been a part of academic setting in every culture and at all levels i.e. from elementary to higher education level. The issue of academic dishonesty has detrimental effects on the reputation of college or university. It also affects the personality of the students who indulge in academically dishonest behavior as well as those who do not show such type of behavior. Academic dishonesty has had such prevalence that it has expanded in its complexity and rate of occurrence (Open Education Database, 2010).

Contrary to this, there is a section of students who are academically resilient and are ready to come out of any adverse situation triumphantly. Their resilience depends upon many factors such as personal competence, social competence, family competence, etc.

Thus, it is significant to find out what makes some students dishonest and others resilient in a same academic situation. Also is there any correlation between academically dishonest and academically resilient behavior of the students. Both these characteristics are common in undergraduate students. At this level, students are not much restricted by the rules and regulations of the institution as compared to those who are at the school level and thus, their resilience or dishonesty might be an indicator of their past behavior in the educational setup. Therefore, a need was felt by the investigator to study the correlation between academic dishonesty and academic resilience among the undergraduate students.

The following questions crossed the mind of the investigator related to the variables of the study-

- (i) Is there any relationship between academic dishonesty and academic resilience in the total sample?
- (ii) Do students who are dishonest, are also resilient when faced with failure?
- (iii) Is there a gender difference when it comes to academic dishonesty and academic resilience?
- (iv) Whether a relationship exists between academic dishonesty and academic resilience when they come from different streams?
- (v) Whether a relationship exists between academic dishonesty and academic resilience in the students of different locality?

### **Objectives of the Study**

The following objectives have been formulated to conduct the present study-

1. To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the total sample of undergraduate students.
  2. To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the female sub sample of undergraduate students.
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3. To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the male sub sample of undergraduate students.
4. To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the rural sub sample of undergraduate students.
5. To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the urban sub sample of undergraduate students.
6. To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the Arts sub sample of undergraduate students.
7. To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the Science sub sample of undergraduate students.

### **Hypotheses of the Study**

Following hypotheses have been formulated for the above-mentioned objectives –

**Hypothesis (H<sub>01</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the total sample of undergraduate students.

**Hypothesis (H<sub>02</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the female sub sample of undergraduate students.

**Hypothesis (H<sub>03</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the male sub sample of undergraduate students.

**Hypothesis (H<sub>04</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the rural sub sample of undergraduate students.

**Hypothesis (H<sub>05</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the urban sub sample of undergraduate students.

**Hypothesis (H<sub>06</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the Arts sub sample of undergraduate students.

**Hypothesis (H<sub>07</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the Science sub sample of undergraduate students.

### **Methodology**

#### **Sample**

The test was administered on a sample of 225 undergraduate students. Both boys and girls were selected from the faculties of science and arts. Out of the total sample, 68% were female and 32% were male. Regarding the locality of the sample, 25% belonged to rural areas and the rest 75% belonged to the urban areas. As per the streams, 59% were from Arts stream while the rest 41% were from the Science stream.

#### **Tools**

##### **Academic Resilience Scale**

An adapted version of ARS has been used in this study. This scale was constructed in Pakistan by Muhammad Sarwar, Hafiz Inamullah, Naemullah Khan and Nadeem Anwar in 2010. Adapted version of Academic Resilience Scale consisted of 29 items under five factors. These factors are Personal Competence (1 to 10), Social Competence (11 to 15), Family Competence (16 to 20), Personal Structure (21 to 25) and Social Support (26 to 29). In order to prove the internal consistency of ARS, the investigator used Cronbach Alpha Test. It was found that Cronbach's

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Alpha is **0.9**, which indicates a high level of internal consistency for ARS. Content validity of ARS was established. The scale was evaluated by a group of teachers and they gave their opinion after evaluating each item of the scale. The scale was evaluated on how well each item taps into areas of academic resilience. The opinions of each teacher were compared by the investigator and determined the degree of content validity that exists for each item. It was found that the items in the scale are really tapping into areas of academic resilience.

### **Academic Dishonesty Scale**

This scale was developed in India by Hilal Bashir and Ranjan Bala in 2018. The scale consists of 23 items under six factors. These factors are Cheating in Examination (1 to 5), Plagiarism (6 to 9), Outside Help (10 to 13), Prior Cheating (14 to 16), Falsification (17 to 19) and Lying About Academic Assignment (20 to 23). In order to prove the internal consistency of ADS, the investigator used Cronbach Alpha Test. The internal consistency of each factor is greater than the recommended coefficient of 0.6 (Hair, et. al. 2010). Also, the internal consistency score for each of the scales ranged from moderate to high, with the least Cronbach's alpha reliability reaching 0.621-0.731. Furthermore, Cronbach's Alpha for overall scale was found to be .831. This illustrates a high degree of internal consistency among the items. The scale has six factors and each factor has adequate convergent validity. The discriminant validity was assessed by the pattern method of Fornell and Larcker, 1981 and it was found to be existent in the scale. Hence, the constructs are truly different from others. Therefore, these aspects reflect the construct validity of the scale. On the other hand, the factor loadings, reliability measures also provide strong evidence for the construct validity.

### **Result**

**Objective 1:** To find out the relationship between Academic Dishonesty and Academic Resilience and their respective dimensions in the total sample of undergraduate students.

**Hypothesis ( $H_{01}$ ):** There is no significant relationship between Academic Dishonesty and Academic Resilience and their respective dimensions in the total sample of undergraduate students.

**Table 1 – Pearson Correlation between ADS and ARS in the total sample**

Academic Dishonesty/ Academic Resilience	Pearson correlation Sig.(2-tailed)	Cheating in Exams	Plagiarism	Outside Help	Prior Cheating	Falsification	Lying about assignment	Total ADS
	N							
Personal Competence	Pearson correlation Sig.(2-tailed)	-.275** .000	-.140* .036	-.233** .000	-.277** .000	-.251** .000	-.221** .001	-.289** .001
	N	225	225	225	225	225	225	225
Social Competence	Pearson correlation Sig.(2-tailed)	-.148* .026	-.034 .613	-.164** .014	.137 .040	-.076 .259	-.096 .152	-.140* .036
	N	225	225	225	225	225	225	225
Family Competence	Pearson correlation Sig.(2-tailed)	-.318** .000	-.188** .005	-.249** .000	-.320** .000	-.231** .000	-.209** .002	-.316** .000
	N	225	225	225	225	225	225	225
Personal structure	Pearson correlation Sig.(2-tailed)	-.348** .000	-.269** .000	-.284** .000	-.346** .000	-.258** .000	-.286** .000	-.374** .000
	N	225	225	225	225	225	225	225
Social Support	Pearson correlation Sig.(2-tailed)	-.362** .000	-.196** .003	-.359** .000	-.280** .000	-.284** .000	-.328** .000	-.382** .000
	N	225	225	225	225	225	225	225
Total ARS	Pearson correlation Sig.(2-tailed)	-.422** .000	-.236** .000	-.382** .000	-.404** .000	-.331** .000	-.332** .000	-.441** .000
	N	225	225	225	225	225	225	225

Table 1 displays the result of the Pearson Correlation calculated between academic dishonesty and academic resilience along with their respective dimensions. The result reveals that there is a significant negative correlation between academic dishonesty and academic resilience and their sub dimensions in the total sample of undergraduate students,  $r(223) = -.441, p = .000$ . It means that students who are academically dishonest are less likely to be academically resilient and vice versa. Moreover, the result also highlights that almost all the dimensions of academic dishonesty and academic resilience are negatively correlated with each other except social competence (a dimension of academic dishonesty) which does not share significant relationship with plagiarism, falsification, lying about academic assignment (dimensions of academic dishonesty). Further analysis of the correlation indicates that Social Support (a dimension of academic resilience) has a significant strongest negative correlation with the total academic dishonesty score,  $r(223) = -.382, p = .000$  which shows that students who have less social support are more likely to display more academically dishonest behavior.

**Objective 2:** To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the female sub sample of undergraduate students.

**Hypothesis (H<sub>02</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the female sub sample of undergraduate students.

Table 2–Pearson Correlation between ADS and ARS in the female sub sample

Academic Dishonesty/ Academic Resilience	Pearson correlation Sig.(2-tailed) N	Cheating in Exams	Plagiarism	Outside Help	Prior Cheating	Falsification	Lying about assignment	Total ADS
Personal Competence	Pearson correlation	-.128	-.110	-.224**	-.128	-.141	-.156	-.186*
	Sig.(2-tailed)	.116	.177	.005	.114	.081	.054	.021
	N	153	153	153	153	153	153	153
Social Competence	Pearson correlation	-.023	-.034	-.082	.093	-.091	-.073	-.061
	Sig.(2-tailed)	.775	.680	.316	.253	.262	.367	.455
	N	153	153	153	153	153	153	153
Family Competence	Pearson correlation	-.164*	-.210**	-.238**	-.222**	-.121	-.198*	-.241**
	Sig.(2-tailed)	.043	.009	.003	.006	.135	.014	.003
	N	153	153	153	153	153	153	153
Personal structure	Pearson correlation	-.245**	-.325**	-.211**	-.339**	-.143	-.305**	-.324**
	Sig.(2-tailed)	.002	.000	.009	.000	.078	.000	.000
	N	153	153	153	153	153	153	153
Social Support	Pearson correlation	-.172*	-.131	-.311**	-.315**	-.270**	-.294**	-.299**
	Sig.(2-tailed)	.033	.106	.000	.000	.001	.000	.000
	N	153	153	153	153	153	153	153
Total ARS	Pearson correlation	-.223**	-.215**	-.337**	-.329**	-.240**	-.302**	-.337**
	Sig.(2-tailed)	.006	.008	.000	.000	.003	.000	.000
	N	153	153	153	153	153	153	153

Table 2 shows the Pearson Correlation calculated between academic dishonesty and academic resilience along with their respective dimensions. The analysis of the table shows that there is a significant negative correlation between total academic dishonesty score and total academic resilience score, i.e.  $r(151) = -.337, p = .000$  which shows that those females who are academically resilient are tend to be less academically dishonest or vice versa. It also shows that all the dimensions of academic dishonesty have a significant negative correlation with the total academic resilience score, Outside Help being the most significantly correlated i.e.  $r(151) = -.337, p = .000$ . The results also reveal that all the dimensions of academic resilience have a significant negative correlation with the total academic dishonesty score except social competence which does not share a significant correlation with the total academic dishonesty score as well as its dimensions which shows that social competence does not play an important role in a female’s academically dishonest behavior.

**Objective 3:** To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the male sub sample of undergraduate students.

**Hypothesis (H<sub>03</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the male sub sample of undergraduate students.

**Table 3 – Pearson Correlation between ADS and ARS in the male sub sample**

Table 3 has tabulated the results of Pearson Correlation between academic dishonesty and academic resilience and their respective dimensions in the male sub sample. The results reveal that total academic dishonesty score and total academic resilience score share a

Academic Dishonesty/ Academic Resilience	Pearson correlation Sig. (2-tailed) N	Cheating in Exams	Plagiarism	Outside Help	Prior Cheating	Falsification	Lying about assignment	Total ADS
Personal Competence	Pearson correlation	-.335**	-.112	-.176	-.366**	-.305**	-.204	-.326**
	Sig. (2-tailed)	.004	.351	.140	.002	.009	.085	.005
	N	72	72	72	72	72	72	72
Social Competence	Pearson correlation	-.187	-.059	-.221	.088	-.080	-.011	-.123
	Sig. (2-tailed)	.115	.625	.063	.460	.505	.327	.303
	N	72	72	72	72	72	72	72
Family Competence	Pearson correlation	-.472**	-.100	-.219	-.416**	-.337**	-.167	-.383**
	Sig. (2-tailed)	.000	.403	.065	.000	.004	.160	.001
	N	72	72	72	72	72	72	72
Personal structure	Pearson correlation	-.348**	-.082	-.287**	-.249*	-.298**	-.136	-.314**
	Sig. (2-tailed)	.003	.491	.014	.035	.011	.253	.007
	N	72	72	72	72	72	72	72
Social Support	Pearson correlation	-.363**	-.157	-.307**	-.098	-.164	-.212	-.310**
	Sig. (2-tailed)	.002	.189	.009	.414	.168	.074	.008
	N	72	72	72	72	72	72	72
Total ARS	Pearson correlation	-.489**	-.151	-.336**	-.373**	-.318**	-.222	-.427**
	Sig. (2-tailed)	.000	.206	.004	.001	.007	.061	.000
	N	72	72	72	72	72	72	72

significant negative correlation, i.e.  $r(70) = -.427, p = .000$  which shows that the males who are academically dishonest are less resilient and vice versa. Further, it can be seen that all the dimensions of academic resilience have a significant relationship with the total academic dishonesty score, Family Competence being the one having the highest negative correlation,  $r(70) = -.383, p = .001$ , which reveals that family competence plays an important role in academic behavior of the males. Moreover, all the dimensions of academic dishonesty share a significant negative relationship with the total academic resilience score except Plagiarism and Lying About Academic Assignments. Cheating in Examination (a dimension of academic dishonesty) has the highest negative correlation with the academic resilience score,  $r(70) = -.489, p = .000$  which can be interpreted as lesser is the academic resilience, higher will be the chances of a male cheating in examination.

**Objective 4:** To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the rural sub sample of undergraduate students.

**Hypothesis (H<sub>04</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the rural sub sample of undergraduate students.

**Table 4 – Pearson Correlation between ADS and ARS in the rural sub sample**

Academic Dishonesty/ Academic Resilience	Pearson correlation Sig.(2-tailed)	Cheating in Exams	Plagiarism	Outside Help	Prior Cheating	Falsification	Lying about assignment	Total ADS
Personal Competence	N							
	Pearson correlation	-.253	-.051	-.231	-.327*	-.077	-.262*	-.238
	Sig.(2-tailed)	.058	.709	.084	.013	.571	.049	.075
Social Competence	N	57	57	57	57	57	57	57
	Pearson correlation	-.324*	-.108	-.431**	.216	-.152	-.174	-.281*
	Sig.(2-tailed)	.014	.424	.001	.107	.259	.196	.034
Family Competence	N	57	57	57	57	57	57	57
	Pearson correlation	-.473**	-.136	-.483**	-.517**	-.284*	-.296*	-.479**
	Sig.(2-tailed)	.000	.313	.000	.000	.033	.025	.000
Personal structure	N	57	57	57	57	57	57	57
	Pearson correlation	-.511**	-.033	-.533**	-.420**	-.213	-.203	-.441**
	Sig.(2-tailed)	.000	.810	.000	.001	.111	.130	.001
Social Support	N	57	57	57	57	57	57	57
	Pearson correlation	-.436**	-.137	-.442**	-.367**	-.275*	-.444**	-.464**
	Sig.(2-tailed)	.001	.308	.001	.005	.039	.001	.000
Total ARS	N	57	57	57	57	57	57	57
	Pearson correlation	-.513**	-.017	-.543**	-.486**	-.249	-.376**	-.489**
	Sig.(2-tailed)	.000	.901	.000	.000	.062	.004	.000
	N	57	57	57	57	57	57	57

Pearson Correlation between academic dishonesty and academic resilience and their respective dimensions in the rural sub sample of undergraduate students has been displayed in table 4. It is clear from the table that there is a significant negative correlation between total academic dishonesty score and total academic resilience,  $r(55) = .489, p = .000$ , which shows that in the rural areas, less academically resilient students are likely to be more academically dishonest and vice versa. Family Competence (a dimension of academic resilience) has the highest negative correlation with the total academic dishonesty score,  $r(55) = -.479, p = .000$  which indicates that students who have high family competence are less likely to be academically dishonest. Further, Outside Help (a dimension of academic dishonesty) shares a high negative correlation with the total academic resilience score,  $r(55) = -.543, p = .000$  which is an indicator that less resilient students are more prone in seeking outside help in examination.

**Objective 5:** To find out the relationship between academic dishonesty and academic resilience and their sub dimensions in the urban sub sample of undergraduate students.

**Hypothesis (H<sub>05</sub>):** There is no significant relationship between the academic dishonesty and academic resilience and their sub dimensions in the urban sub sample of undergraduate students.



**Table 5**–Pearson Correlation between ADS and ARS in the urban sub sample

Academic Dishonesty/ Academic Resilience	Pearson correlation Sig.(2-tailed) N	Cheating in Exams	Plagiarism	Outside Help	Prior Cheating	Falsification	Lying about assignment	Total ADS
Personal Competence	Pearson correlation	-.290**	-.208**	-.246**	-.261**	-.318**	-.209**	-.311**
	Sig.(2-tailed)	.000	.007	.001	.001	.000	.007	.000
	N	168	168	168	168	168	168	168
Social Competence	Pearson correlation	-.067	-.094	-.027	-.118	-.043	-.067	-.084
	Sig.(2-tailed)	.387	.223	.730	.127	.576	.385	.281
	N	168	168	168	168	168	168	168
Family Competence	Pearson correlation	-.268**	-.204**	-.171*	-.264**	-.217**	-.184*	-.268**
	Sig.(2-tailed)	.000	.008	.027	.001	.005	.017	.000
	N	168	168	168	168	168	168	168
Personal structure	Pearson correlation	-.312**	-.337**	-.224**	-.326**	-.278**	-.313**	-.365**
	Sig.(2-tailed)	.000	.000	.003	.000	.000	.000	.000
	N	168	168	168	168	168	168	168
Social Support	Pearson correlation	-.327**	-.227**	-.311**	-.265**	-.290**	-.289**	-.353**
	Sig.(2-tailed)	.000	.003	.000	.001	.000	.000	.000
	N	168	168	168	168	168	168	168
Total ARS	Pearson correlation	-.386**	-.322**	-.313**	-.382**	-.366**	-.319**	-.425**
	Sig.(2-tailed)	.000	.000	.000	.000	.000	.000	.000
	N	168	168	168	168	168	168	168

Table 5 reports the Pearson Correlation between academic dishonesty and academic resilience and their respective dimensions in the urban sub sample. The results reveal that there is a significant negative correlation between total academic dishonesty score and the total academic resilience score,  $r(166) = -.425, p = .000$ . This indicates that in urban areas, students who are more academically resilient are less likely to be academically dishonest and vice versa. Moreover, all the dimensions of academic dishonesty have a high negative correlation with the total academic resilience score, Cheating in Examination being the highest negatively correlated one,  $r(166) = -.386, p = .000$ , indicating that less resilient students are more likely to cheat in the examination. Also, all the dimensions of the academic resilience share a significant negative correlation with the total academic dishonesty score, except Social Competence, which shows that social competence is less important in the academic behavior of the students.

**Objective 6:** To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the Arts sub sample.

**Hypothesis (H<sub>06</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the Arts sub sample.

**Table 6 – Pearson Correlation between ADS and ARS in the Arts sub sample**

Academic Dishonesty/ Academic Resilience	Pearson correlation Sig.(2-tailed) N	Cheating in Exams	Plagiarism	Outside Help	Prior Cheating	Falsification	Lying about assignment	Total ADS
Personal Competence	Pearson correlation Sig.(2-tailed) N	-.391** .000 88	-.019 .858 88	-.351** .001 88	-.365** .000 88	-.320** .002 88	-.312** .003 88	-.394** .000 88
Social Competence	Pearson correlation Sig.(2-tailed) N	-.194 .070 88	-.162 .130 88	-.219* .041 88	.164 .126 88	-.055 .612 88	-.165 .124 88	-.155 .148 88
Family Competence	Pearson correlation Sig.(2-tailed) N	-.291** .006 88	-.052 .634 88	-.176 .102 88	-.292** .006 88	-.170 .113 88	-.227* .033 88	-.249* .019 88
Personal structure	Pearson correlation Sig.(2-tailed) N	-.319** .002 88	-.148 .167 88	-.301** .004 88	-.328** .002 88	-.203 .058 88	-.288** .006 88	-.356** .001 88
Social Support	Pearson correlation Sig.(2-tailed) N	-.276** .009 88	-.145 .178 88	-.325** .002 88	-.097 .369 88	-.118 .273 88	-.340** .001 88	-.309** .003 88
Total ARS	Pearson correlation Sig.(2-tailed) N	-.449** .000 88	-.024 .824 88	-.419** .000 88	-.385** .000 88	-.280** .008 88	-.398** .000 88	-.447** .000 88

Table 6 reveals the Pearson Correlation between academic dishonesty and academic resilience and their respective dimensions in the Arts sub sample. The results show that total academic dishonesty score and total academic resilience score have a significant negative correlation,  $r(86) = -.447, p = .000$  which indicates that students of Arts who are more resilient are less likely to be academically dishonest and vice versa. Further analysis of the table reveals that all the dimensions of academic dishonesty have a significantly negative correlation with the total academic resilience score except Plagiarism, which indicates that plagiarism has less significance in the academic behavior of the Arts students. Also, Cheating in Examination (a dimension of academic dishonesty) has the highest negative correlation with the total academic resilience score,  $r(86) = -.449, p = .000$  indicating that the students who are less resilient are more likely to cheat in examination and vice versa. Moreover, all the dimensions of academic resilience except Social Competence have a significant negative correlation with the total score of academic dishonesty

indicating that social competence has a less significant role in the academically dishonest behavior of the Arts students.

**Objective 7:** To find out the relationship between academic dishonesty and academic resilience and their respective dimensions in the Science sub sample of undergraduate students.

**Hypothesis (H<sub>07</sub>):** There is no significant relationship between academic dishonesty and academic resilience and their respective dimensions in the Science sub sample of undergraduate students.

**Table 7**–Pearson Correlation between ADS and ARS in the Science sub sample

Academic Dishonesty/ Academic Resilience	Pearson correlation Sig.(2-tailed)	Cheating in Exams	Plagiarism	Outside Help	Prior Cheating	Falsification	Lying about assignment	Total ADS
Personal Competence	N							
	Pearson correlation	-.114	-.021	-.078	-.049	-.132	-.064	-.088
	Sig.(2-tailed)	.381	.874	.550	.707	.310	.624	.498
Social Competence	N	61	61	61	61	61	61	61
	Pearson correlation	-.188	-.148	-.296*	.223	-.215	-.098	-.222
	Sig.(2-tailed)	.146	.254	.020	.084	.096	.453	.086
Family Competence	N	61	61	61	61	61	61	61
	Pearson correlation	-.298*	-.281*	-.419**	-.284*	-.220	-.139	-.320*
	Sig.(2-tailed)	.020	.028	.001	.026	.088	.284	.012
Personal structure	N	61	61	61	61	61	61	61
	Pearson correlation	-.294*	-.272*	-.328**	-.338**	-.348**	-.320*	-.361**
	Sig.(2-tailed)	.021	.034	.010	.008	.006	.012	.004
Social Support	N	61	61	61	61	61	61	61
	Pearson correlation	-.349**	-.200	-.438**	-.248	-.359**	-.334**	-.373**
	Sig.(2-tailed)	.006	.123	.000	.054	.004	.008	.003
Total ARS	N	61	61	61	61	61	61	61
	Pearson correlation	-.355**	-.255*	-.439**	-.324*	-.371**	-.269*	-.387**
	Sig.(2-tailed)	.005	.047	.000	.011	.003	.036	.002
	N	61	61	61	61	61	61	61

Table 7 highlights the Pearson Correlation between academic dishonesty and academic resilience and their respective dimensions in the Science sub sample. The analysis of the table shows that total academic dishonesty score and total academic resilience score have a significant negative correlation,  $r(59) = -.387, p = .002$  indicating that higher the resilience, lower is the dishonesty or vice versa. Further study of the table reveals that Outside Help (a dimension of academic dishonesty) has a significant negative correlation with the total academic resilience score,  $r(59) = -.439, p = .000$  showing that less academically resilient students are more inclined towards outside help. Further, it can be seen that all the dimensions of academic resilience except personal



competence and social competence share a significant negative correlation with the total academic dishonesty score which indicates that the Personal Competence and Social Competence do not play important role in the academically dishonest practices of Science students.

### **Discussion on Major Findings of the Study**

#### **1. On the basis of the total sample of the study**

The findings revealed that the academic dishonesty and academic resilience were negatively correlated which indicated that those undergraduate students who were academically dishonest were less likely to be academically resilient or those undergraduate students who were academically resilient were less likely to be academically dishonest. The result is consistent with the past research which showed that negative correlation exists between achievement and involvement in academically dishonest behavior (Miller & Izsak, 2017). The result of the present study also showed that social competence (a dimension of academic resilience) did not share a significant relationship with plagiarism, falsification and lying about academic assignment (dimensions of academic dishonesty). Study further revealed that students who were less academically resilient were more prone to cheat in examination highlighting the importance of resilience to promote the ethical behavior among the students. Social support (a dimension of academic resilience) was the strongest negatively correlated dimension with the academic dishonesty reflecting that the lack of social support was one of the key factors that motivated students to indulge in academically dishonest practices. This goes parallel with the past research which showed that social support from friends moderates the negative association between academic stress and resilience among social work students i.e. it acts as a valuable resource to boost up resilience in the face of academic stress (Wilks & Spivey, 2010).

#### **2. On the basis of gender of the sample of study**

The study showed that males had a higher significant negative correlation between academic dishonesty and academic resilience as compared to the females. Previous researches highlighted inconsistent results in this regard. Men cheat more than women and women reacted more sternly than men towards cheating (Davis et. al., 1992). Older students, women and students with higher GPAs reported less academic dishonesty among college students (McCabe & Trevino, 1997). There are gender differences in academic resilience and girls were found to be more academically resilient compared to the boys among secondary school students (Mwangi & Ireri, 2017). However, some researches contradict this view and showed that significant gender differences do not exist in academic dishonesty and academic resilience. There exists no difference in attitudes towards cheating between genders (Miller & Izsak, 2017). There was no significant gender difference in all the variables of the Achievement Goal Questionnaire (AGQ), Resilience and Youth Development Module (RYDM) (Jowker et. al., 2013). Similarly, study by Rao & Krishnamurthy (2017) also reflects that resilience does not differ by gender. The reason of the inconsistency in the results may be explained by different socio-cultural factors. "The gender sensitivity of resilience depends on the socio-cultural factors at play in the subject environment. It is both time dependent and space dependent" (Rao & Krishnamurthy, 2017).

Further analysis revealed that family competence (a dimension of academic resilience) had the strongest negative correlation with academic dishonesty among the male students. Also cheating in examination (a dimension of academic dishonesty) had the strongest negative correlation with the academic resilience among males. Moreover, among the females, personal structure (a dimension of academic resilience) i.e. the ability to take decisions in one's own ways, had the highest negative correlation with the academic dishonesty reflecting the importance of personal structure in academic behavior of the

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females. Result also indicated that outside help (a dimension of academic dishonesty) had the highest negative correlation with academic resilience showing that less resilient females were more prone to seek outside help. This result can draw attention to the findings of McCabe and Trevino (1997) that female enrolled in traditionally male dominated academic majors like engineering, business etc. have resorted to cheating to remain academically competitive. Further, social competence (a dimension of academic resilience) was not a significant factor among both male as well as female students.

### **3. On the basis of locality of the sample of study**

The result of the present study highlighted that rural students had a higher correlation between academic dishonesty and academic resilience in comparison to the urban students. Among the rural students, family competence (a dimension of academic resilience) had the strongest negative relationship with the academic dishonesty which shows that family can play a significant role in the academic performance of the rural students. Education of the parents, time spent with the family members and positive attitude of the family can help a great deal to improve resilience of the students. The result can be corroborated by some of the past studies. Positive family demographic factors and/or parents' perception about school climate support students' resilience among the school students, also, family characteristics like parental education, parental presence at home and parental expectations regarding post-secondary education help in boosting up the resilience (Sinay, 2018). Similarly, a study conducted by Banerjee et. al. (2018) also highlighted that those students who spent more time with mother and father were found to be more resilient. Also, outside help (a dimension of academic dishonesty) had the strongest negative correlation with the academic resilience among rural students, indicating that less academically resilient students were more inclined towards outside help. Among the urban students, personal structure (a dimension of academic resilience) had the highest negative correlation with academic dishonesty highlighting that students with positive personal structure were less likely to be academically dishonest. The result is in consistency with the previous research which showed that academic self-efficacy is an important predictor of academic resilience among high school students and work in self-regulation and goal setting provides direction for enhancing students' planning and persistence which are the two keys to students' academic resilience (Martin & Marsh, 2016). Moreover, cheating in examination (a dimension of academic dishonesty) had the highest negative correlation with the academic resilience. Further result showed that social competence (a dimension of academic resilience) did not have a significant relation with the academic dishonesty among the urban students.

### **4. On the basis of faculty of the sample of study**

According to the present study, the students of faculty of Arts had a higher negative correlation between academic dishonesty and academic resilience as compared to the students of faculty of Science. Among the students of Arts, personal competence (a dimension of academic resilience) shared the highest negative correlation with the academic dishonesty indicating that the students who were competent with their own self were less prone to academic dishonesty. Further, cheating in examination (a dimension of academic dishonesty) had the highest negative correlation with the academic resilience showing that less resilient students indulge in cheating in examination. There is a subtle perception that students of arts cheat more than the students of science group. The result proved otherwise. High negative correlation in cheating in examination and academic resilient in arts group may suggest that maybe because students might find it hard to bounce back after facing failure in academics. In the Science sample, social support (a dimension of academic resilience) had the highest negative correlation with academic dishonesty which highlighted

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the importance of social support in the academic performance and academic behavior of the students. This result goes parallel with the past research conducted on social work students which showed that friend related social support moderated the negative association between academic stress and resilience among the students (Wilks & Spivey, 2010). Moreover, Science students had the strongest negative correlation between outside help (a dimension of academic dishonesty) and academic resilience. Less resilient students from the science background are more likely to seek outside help, for example, in the practical examination, they try to seek help from the outside sources. Further analysis revealed that social competence (a dimension of academic resilience) did not have a significant relation with academic dishonesty among both the students of Science as well as Arts.

### **Educational Implications**

The educational implications of the present study for different stakeholders can be summarized as follows:

#### ➤ **Implications for policy makers**

- There should be inclusion of moral science as a compulsory subject in order to promote moral and ethical values among the students.
- There should be clear guidelines about the rules, regulations and the punishment on violation of those rules in the colleges and universities.
- Group counselling sessions should be organized periodically in order to give students a chance to discuss their problems freely and get them resolved.
- Individual counselling sessions should also be arranged for those who face problems which require individual attention.
- Workshops should be organized for the teachers to train them for developing resilience and how to discourage dishonest practices among the students.
- Project and group work should be given due importance in the curriculum in order to promote social values among the students.
- Co-curricular activities should be given due weightage in the curriculum so that students are able to create a positive self-image and avoid frustration and negative feelings.
- Competent teachers should be appointed so that students do not get a reason to indulge in dishonest means.

#### ➤ **Implications for teachers**

- Teachers should promote moral values among the students and discourage them from indulging in dishonest practices.
- Teachers should try to understand the individual differences and also the attitude of the students to identify any problems faced by any student and resolve those problems.
- Teachers should understand different aspects of academic resilience and try to develop those aspects among the students.
- Teachers should be fully aware of the different dishonest means used by the students and they should try to discourage those means.
- Teachers should assign project work to the students to develop social values, peer harmony and healthy competition among the students.

#### ➤ **Implications for parents**

- Parents should promote moral values among their children from the very childhood so that at later stages they do not get inclined towards unethical practices.
- Parents should promote a conducive environment at home so that children do not feel any fear in discussing their problems with them.



- Parents should spend quality time with their children and bridge their gap from the children.
- Parents should develop social values among the students.
- Parents should help their children to create a positive self-image of themselves.

### Suggestions for further research

Following suggestions may be given for the future researches on the basis of the present research

- The present study is conducted on the undergraduate students of Aligarh Muslim University; however, the research may also be conducted on the school and post graduate level as well as the students of other universities.
- Future research may undertake the comparative study of academic dishonesty between male and female, urban and rural or among different faculties like Science, Arts, Social Science, etc.
- Comparative study of academic resilience may also be conducted on male and female, rural and urban or among different faculties.
- Research on the academic resilience among the students studying through distance mode can also be conducted.
- A study on the role of social competence in academic dishonesty can be conducted in future.
- An experimental study can be conducted to prepare the teachers for promoting resilience among students through training programs.

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## ROLE OF FAMILY FUNCTIONING IN INTERNET ADDICTION AMONG YOUNG ADULTS

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### ABSTRACT

**Background:** The internet today is vital part of our lives and daily routine. It is used widely throughout the globe, especially among the youth. It is being used for numerous purposes, for entertainment, educational, healthcare, sharing information, social networking, academics, recreational and leisure, etc. Different parenting characteristics, such as parental control and family cohesion are directly linked with internet addiction according to various studies.

**AIM:** To assess the level of internet addiction among young adults and to assess the relationship between family functioning and internet usage among young adults.

**Method:** A sample of 120 male and female young adults was included on the basis of predefined inclusion and exclusion criteria. The sample was selected by using purposive sampling technique, using ex-post facto research design. The tools that were used are socio demographic details, Young Internet Addiction Scale (Young 1987) and the Family Environment Scale (Bhatia and Chadha, 1993). The results were analysed using frequency and percentage, mean and Pearson correlation.

**Result:** It was found that out of 120 participants, on the basis of Young Internet Addiction Scale, 11 participants were in the category of no addiction (9.2%); 56 participants showed mild internet addiction (46.3%); 39 participants showed moderate internet addiction (32.6%) and 14 participants showed severe internet addiction (11.9%). The domains of Family Functioning, Cohesion and Expressiveness among the family members were negatively correlated to internet addiction.

**Conclusion:** On one hand where the internet has made life easier it also has its drawbacks and negative effects. Variable like family dysfunction is related to internet dependency quite frequently.

**Keywords:** Family Functioning, Internet Addiction, Young Adults

### Introduction

The internet today is vital part of our lives and daily routine. It is used widely throughout the globe, especially among the youth. It is being used for numerous purposes, for entertainment, educational, healthcare, sharing information, social networking, academics, recreational and leisure, etc.

This massive growth that we experience today, laid its foundation in the 1990s, a revolutionary turn in the field of technology took place and it drastically changed how

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information is accessed, with the majority of the population using the internet at large (Moreno et al. 2011).

Characteristics like ease of use, ease of access, within everyone's reach and ambiguity makes the internet more alluring for the young adults and it has become the well liked, source of entertainment for individuals (Ruggieri et.al, 2013; Rooij et.al, 2007).

Researches over the time have established along with personal characteristics, quality of family functioning has an imperative role to play in the mental and physical health and wellbeing of an individual since a very young age (LoCascio et.al, 2013; Rutter, 2007).

Studies reveal that affective care or the degree of authority by the parents can be considered as protective factors; these are directly linked with individuals indulging into addictive behaviours. Also, throughout the researches it has been established that family functioning and its aspects have a significant relation with Internet addictive use (Yen et al. 2007).

### **Family Functioning**

The family is the basic unit in the society. The family plays an important role in the basic psychosocial development of an individual, the parental morals and ethics are learned by any individual within the family. Family functioning refers to the interaction pattern within the family members including its social and structural properties. It includes interaction patterns, conflicts, agreeableness, cohesion, organization, quality of communication, adaptability and overall quality of relation among the family members. Family environment that includes information sharing, has clear communication, cohesion, expressiveness, agreeability, good affect regulation and well defined roles is considered to be a sign of healthy family functioning. While family environment that involves high levels of conflict, disagreeability, disorganization, poor affective and behavioural control is considered to be poor family functioning.

Moos (1974) described the family environment on the following dimensions:

#### **Relationship dimension include:**

- i) **Cohesion:** Cohesion refers to the support provided by each family member to the other. It is the commitment, foundation and help within the family members. It includes the bonding and the feeling of togetherness in the family.
- ii) **Expressiveness:** Expressiveness is the ease within the family members to convey their thoughts, emotions and opinions directly and openly.
- iii) **Conflict:** This refers to the conflict situations and the family manages it within their environment.
- iv) **Acceptance and caring:** extent to which the members of the family completely accept each other as individuals and the amount of care they show for each other.

**Personal growth dimension include:**

- v) **Independence:** The independence refers to the extents to which family members are self- assured, self-sufficient, and able to decide for them effectively.
- vi) **Active Recreational Orientation:** This subscale taps the amount of contribution in societal leisure activities.

**System maintenance dimension:**

- vii) **Organization:** It refers to the importance of arrangement and organization in scheduling family conduct and everyday jobs.
- viii) **Control:** It assesses the amount of rules and regulations to run family life.

**Internet Addiction**

Increased use of Internet has great impacts in present-day society which can be seen in various domains. It can cause emotional instability, overuse of the internet so much so that individuals lose the track of time, anxiety when one is unable to use the internet, less or no interaction and participation in social and a diminishing persona life, and interpersonal relationships and distraction from work and study, also may affect self-esteem of the young adults.

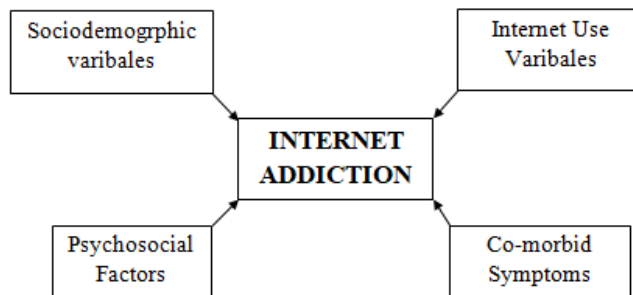
Young (1998) identified 4 symptoms to diagnose internet addiction:

1. A continuous psychological preoccupation with using the internet
2. An uncontrollable urge to use the internet,
3. Increasing the amount of usage gradually
4. Agitation and irritation when trying to reduce or discontinue internet usage.

American Society of Addiction Medicine, 2011 defines addiction as a chief, persistent illness impacting brain centres, drive, and reminiscence and associated circuits. Dysfunction of these circuits leads to characteristic biological, psychological, social and spiritual manifestations.

DSM 5 describes Internet Addiction as a dependency criterion. Referred to as:

1. behavioural dependency to the internet
2. repulsive use of the internet
3. Problematic use of the internet



**Factors Associated with Internet Addiction. (Kuss et., al 2014)**



### **Psychosocial factors related to internet addiction**

Psychosocial factors include low mood, anxiety, depression, emotional instability, low life satisfaction, low well-being, loneliness, lack of confidants, preference for online social interaction, negative life outcomes.

Social variables that are related to it are social adaptation, stress, and low academic achievement, poor interpersonal relation, frequent boredom, and participation less extracurricular activities, peers and family member with substance abuse.

Various other family variables are also linked with Internet addiction. These include family conflict, cohesion, expressiveness, dissatisfaction, interpersonal relationships, parental bonding, independence, parenting styles, and perceived parental monitoring,

Shek, Duo and Zhu (2019) explored the levels of internet addiction in relation to parent-child subsystem including behavioural control, psychological control, and parent-child relationship among a sample of 3,074 young adults. They concluded that maternal psychological control rather than paternal had more significant effects on levels of internet addiction. Also better interpersonal relationship among the parent and child predicted lower levels of internet addiction.

Shi et.al, (2017) explored the relationship among family dysfunction and internet addiction and roles of self-esteem and loneliness as underlying features. They found a correlation between family dysfunction and internet addiction, difference in usage between male and females. They concluded that self esteem and loneliness play a role as a mediating factor.

Habibi and Danesh (2015) conducted a study to explore the association between family function with internet addiction. The results predicted increase in internet addiction with family dysfunction. With an increase in aspects of family dysfunction like unhealthy problem solving, poor roles and responsibilities, affect issues, and emotional instability, internet addiction is also increased.

### **Material and Methods**

#### **Objectives**

- To assess the level of internet addiction among young adults.
- To assess the relationship between family functioning and internet usage among young adults.

#### **Tools Used:**

##### **1. Internet Addiction Test (IAT)**

Young (1998) developed the internet addiction test. It consists of 20 items measuring the level of internet addiction. The minimum score is 20 while the maximum is 100 and the higher the score range, the greater the level of addiction; normal range: 0-30 points, mild: 31-49 points, moderate: 50-79 points, and severe: 80-100 points.



## 2. Family Environment Scale

The FES was developed by Bhatia and Chadha in 1993. It is based on the family environment scale by Moos (1974). This scale consists of three dimensions which have been taken from Moos' scale. These are relationship dimensions: Cohesion, Expressiveness, Conflict, Acceptance and Caring. Personal growth dimensions: Independence, Active-Recreational orientation. Systematic maintenance dimension: organization and Control. The overall test reliability coefficient is 0.95. The scale contains 69 items with a 5-point scale ranging from (1) strongly agree, (2) agree, (3) neutral, (4) disagree, or (5) strongly disagree.

### Procedure

120 participants were made part of the study by using purposive sampling. Inclusion and exclusion criteria were followed to select the participants. After taking the consent from the participants they were asked to fill the Socio demographic sheet, Clinical data sheet. Then they were asked to fill the Questionnaires for Internet Addiction, Family Environment scale. Statistical analysis was done with the help of SPSS (statistical Package for Social Sciences 20.0), The statistical tools used were frequency, and Pearson correlation.

### Result Findings:

Table 1.

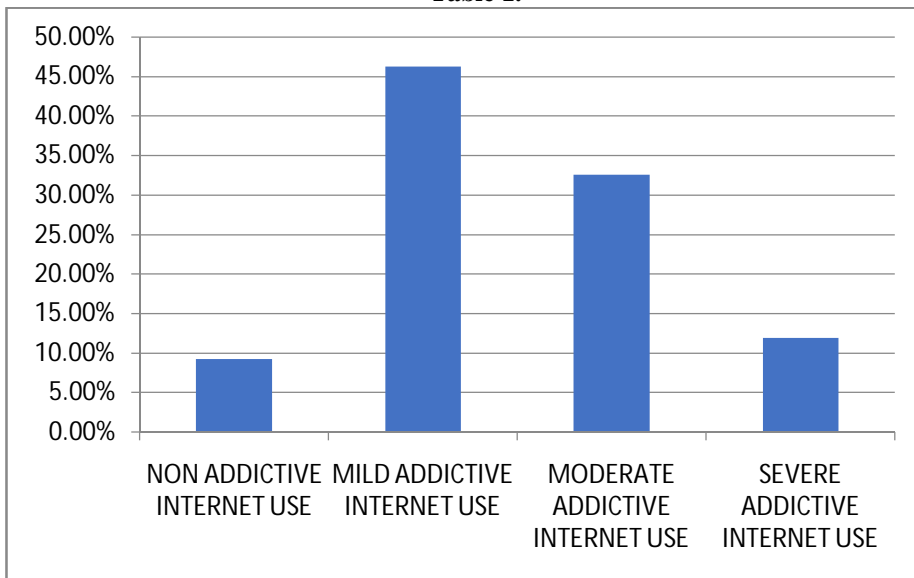


Table 1 shows that out of 120 participants, on the basis of Young Internet Addiction Scale, 11 participants were in the category of no addiction (9.2%); 56 participants show mild internet addiction (46.3%); 39 participants show moderate internet addiction (32.6%) and 14 participants show severe internet addiction(11.9%)

**Table 2.**

	IA	Coh	exp	Con	Acc	Active	Ind	Org	control
<b>IA</b>	-	-	-	-	-	-	-	-	-
<b>Coh</b>	-.218**	-	-	-	-	-	-	-	-
<b>Exp</b>	-.067**	.502**	-	-	-	-	-	-	-
<b>Conflict</b>	.034	.511**	.574*	-	-	-	-	-	-
<b>Acc</b>	.052	.559**	.446*	.674**	-	-	-	-	-
<b>Active</b>	.068	.342**	.376*	.456**	.322*	-	-	-	-
<b>Ind</b>	.054	.229**	.135	.217	.256*	.260*	-	-	-
<b>Org</b>	.195**	-.047	.148	.061	-.045	-.006	.052	-	-
<b>Control</b>	.069	.116	.097	-.028	.117	.023	.094	.054	-
<b>FES</b>	-.011	.772**	.724*	.818**	.797*	.609*	.455*	.112	.166

The table 2 shows that the domains of Family Functioning, Cohesion and Expressiveness among the family members are negatively correlated to internet addiction.

### Discussion

The present study aims to explore the relationship between internet addiction and family functioning among young adults. A sample of 120 male and female young adults was included on the basis of predefined inclusion and exclusion criteria. The sample was selected by using purposive sampling technique, using ex-post facto research design. The tools that were used are Young Internet Addiction Scale (Young 1987), the Family Environment Scale (Bhatia and chadha, 1993). The results were analysed using frequency and percentage, mean and Pearson correlation.

The first aim of the present study was to assess the level of internet addiction among young adults. Frequency and percentage was used to assess the same which can be referred from table 1. It was found that out of 120 participants, on the basis of Young Internet Addiction Scale, 11 participants were in the category of no addiction (9.2%); 56 participants show mild internet addiction (46.3%); 39 participants show moderate internet addiction (32.6%) and 14 participants show severe internet addiction(11.9%).

This finding can be supported by a study conducted by Goel et.al, (2013), with the findings that 74.5% mild level of internet addictive use, 24.8% moderate internet addictive use, 0.7% severe internet addictive use. In another the study by Sharma et.al, they found that out of the total selected population 57.3% normal online activity, 35.0%



mild online activity, 7.4% moderate online activity and 0.3% severe addiction to online activity.

The second objective of the study was to assess the relationship between Internet Addiction and Family Functioning. By analysing the correlation between Internet Addiction and the domains of Family Functioning it has been found that Cohesion and Expressiveness among the family members is negatively correlated to internet addiction.

Cohesion is the amount of support within the members of a family. As the results confirm a negative correlation between cohesion and internet addiction we can predict that lack of commitment and support within the family might lead to excessive use of internet.

Expressiveness is the degree to which family members are can express their thoughts, opinion, emotions and beliefs openly. A lack of expression of individual's thoughts and emotion within the can lead the individual to look for alternative outlets and encourage them to express their emotions over the internet on social media platforms like Facebook, Instagram, Twitter ect. This is also seen as a trend among the young adults.

### **Conclusion**

Worldwide, the number of internet users increases at a rapid rate. It is being widely used by the individuals for long durations; they use it for various purposes. On one hand where the internet has made life easier it also has its drawbacks and negative effects. Variables like personality traits and family dysfunction are related to internet dependency quite frequently.

In the present study it the internet addiction. Cohesion that is the support among the family members was negatively correlated to Internet Addiction. While expressiveness among the family members is also negatively correlated to internet addiction.

### **Limitations**

The limitations of the present study are as follows:

1. The sample size was small and the sampling was purposive.
2. Comorbidity of the psychological disorders in the subjects was not ruled out
3. Only young adults were a part of the study

### **Implications**

1. Individual with severe internet addiction and family or personality issues can be identified.
  2. Pattern of internet use can be identified.
  3. Family dysfunction can surface which can be catered to.
  4. Personality traits leading to addictive behaviours can be identified and facilitated.
  5. People can be made aware regarding the extensive use of internet and how to cut down the use can discussed and the preventive to follow can be explored.
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v k / k j i j l e l ; k v k a d k l e k / k u d j u s d k i z k l i j f d ; k x ; k A y x H k x 7 n ' k d k a d s  
b f r g k l e H k j r v l s i k f d L r k u l e a k d b z n r k j & p < k o d s j g g d " k j r & i k f d L r k u d s , s r g k f l d ]  
l k a d f r d ] " k s k f y d v l s v k f f k z d l E c l u / k l k = k k j g u s d s m i j k r H k l e a k n q e u h ] r u k o j  
v l s j v f o ' o k l l s x L r j g g d " k j r v l s i k f d L r k u u s L o r a r k d s c k n j k t u f ; d l e a k k s d h L F k k i u k

\*, l k f l , v i k d j j j k t u l f r f o k k u f o h k x j 5 1 1 j k e k u t v l o k l ] o u l F k y h f o | k i h B 1 / 2 k t - 1 / 2 e k s 0 7 5 9 7 9 6 5 2 9 9 E m a i l :  
vijay.sangeeta2020@gmail.com  
\*\*' k a k N k = i j k t u l f r f o k k u f o h k x j o u l F k y h f o | k i h B 1 / 2 k t - 1 / 2



dh g&y&fdufgd dfoHkk&tuvl& {k=h; fooknkar&Fkk 1947] 1965 rFkk 1971 ds ;@ , o&kr&dhgey& rFkk 1980 fl ; kphu&Xy&f'k; j dk epn&k ; k dPN dk ju dk epn&k] 1989 e&d'ehjfont& dh xgur&k] us ikfdLrku ds l kFkj'rk&kl& dkkjus ds ctk; fcx&M+ fn; kA ; | fi "kjri&fdLrkufj'rk&kl& dkkjy&us ds fy, db&z, kl Hkhgq g&ts& &f'key&f'k[kj] Eesy&] vx&xj&f'k[kj] Eesy&v&l&g&f'k[kj] Eesy&ub&R; kfnA

1998 ea "kjr&v&l&g& ikfdLrku ds ijek.k&fj {k.k&v&l&g& 1999 ds dkj&fxy ;@ ds ckn&v& , rukod&ks de dju&ds fy, d&n&mik; Hkh&f&d; x; &ts& s 2003 ;@ fojke le>l&f&v&l&g&fnYyhy&g&l&g& cl l ok ds ek/; e l s rukod&ks de dju&ds d&n& Qyrki k&rg&g&Ag&v&f&dbuiz, kl ks ds n&l&g&ku 2001 ea "kjr&h; l&dnij&v&kr&dhgeys us n&sk&n&sk&kl&ks , d ijek.k&g ;@ ds dx&kj&ij&y&kdj [k&M&l&djfn; kA 2007 ea le>l&f&f&k , D l i&l e&ef&ol&ok&v/ "h l&cl/k&v&g&Roi&v&kk&M+ FkkA 2008 e&f&Q&j&i&f&d&L&rku&v&kr&f&d; ka }kj&ep&b&g&ey&k "kjri&f&d&L&rku ds chpy&j&gh 'kk&f&ok&rk&z ds fy, x&h&khj>V&dkl k&f&erg&v&f&kA

"kjri&f&d&L&rku ds chpey&f&ey&ki d&kl&V&V&j&i&f&f&h&f&t&g&kn&hr&Ro] rkfy&cku] i&f&d&L&rku&v&y&dk; n&l] v&kb&z, l v&kb&z&v&l&g& l&uk dk , d c&M&ko&x&g&ks&u&gh&n&rkA Lor&rk ds ckn "kjr us ikfdLrku ds l k&f&g&es&kk 'kk&f&v&l&g&n&kr&h dh LF&kki&uk ds fy, x&h&khj&iz, kl fd; y&f&sdud&kl&D&k; n&ku&gh&v&v&f&kA "kjr&h; i&zk&ue&f&=; k&ia us&#] e&l&g&j&t&h&n&d kb&l& b&nd&ep&kj&x&f&j&y] v&V&y&f&cg&j&h&ok&t&is&h] eue&kg&u fl g&v&l&g&u&j&h&ne&kn&hus ikfdLrku ds l k&f&kl k&ak&n&v&kl& E&cl&/k LF&kk&f&rd&jus ds fy, i&z, kl fd; g&v&v&PN&i& M&h& h ds l&e&ak& cukus ds fy, n&sk&n&sk&ka dh b&PN&k 'k&f&D&ri&zy&g&ks&h&pk&fg, r&f&d&n&ks&us ds chp 'kk&f&L&F&kk&f&rg&kl& d&A

**H&j&r&i&f&d&L&rku&l&E&cl&/k& & , d fo'y&f&k&1990 l sy&d&j&v&h&rd&z**

1985 e&n&f&{k.k , f'k; k ds l&r&n&s&k&ka }kj&v&v&f&f&z&v&l&g&j&kt&uh&f&rd {k=h; e&d g; k&x&g&rg&f&f&{k.k , f'k; k&b&z {k=h; l g; k&x&l& x&Bu 1/4 kd&z dh LF&kki&uk dh x&b&Ab&l dh LF&kki&uk dk m&is ; fod&kl 'k&h&y&n&s&k&ka ds l k&f&kl g; b&x&d&ke&t&ar&d&j&uk&f&k&A H&h&j&rv&l&g& ikfdLrku&n&s&k&ka ds e/; Q&sy&g&g vfo'okl d&ks n&f&kd&j , d ky&x&r&k&f&f&d 'kk; n ; g , d , d ke&pg&f&g&kl&j&b&un&ks&ka ds f&j'rk&cl&ks d&kk&j&kt&kl d&A y&f&sdug&y&kr&cl&ks n&f&kd&j , d ki&r&h&rg&ks&g&f&d 'kk; n ; g e&p&H&kh&b&un&ks&ka ds f&j'rk&cl&ks d&kk&j&ue&ak&de; k&c&j&g&Ab&l d&ck&ne&H&h&j&r&i&f&d&L&rku&l&E&cl&/k&cl&ks bl id&kj n&f&kl d&rg&&

**y&l&g&f& ?k&sk.k&i = 1/4999 1/2**

f'key& le>l&f&s& ds ckn&H&h&j&r us, d ckj&y&g&l&g& ?k&sk.k&i = ds tf&j, n&sk&n&sk&kl&ks&g&rg&j&c&ukus ds i&z, kl fd; kx; k&AQ&j&oj&h&1999 d&kr&R&d&ky&hu&H&h&j&r&h; i&zk&ue&f&=h v&V&y&f&cg&j&h&ok&t&is&h&v&l&g& ikfdLrku&h&i&zk&ue&f&=h uokt 'k&j&h&Q ds chp , d ?k&sk.k&k&i = i&j&g&lr&k&{k&j&g& ft&le&d H&h&e&f&h&ok&kl&ky&kd&jl&E&cl&kl&ks&g&rg&j&c&ukus dh d&f&'k' k&H&h&j&r dh v&l&g l&s dh x&b&Ab&l ds y&kok&ub&f&n&Yy&h l&s y&l&g&f& l&s rd&g&f&ren&ks&kl&l&ok&f&, &l&j&gn dh 'k&f&v&kr dh v&l&g d&n& e&f; c&r&k&aj&pp&kl& a dh x&b&o&h&t&f&u; e&kl&ks&/kl k&uc&uk&l&fel&k&by&m&M&M; u&i&j&h&{k.k&ka dh i&nd& p&uk&n&s&kl& g&{k& fu'k&l&=hd&j.k&v&l&g&ij&ek.k&v&i& d&j ds e&f&is&f&]i&{k&h; ok&rk&z; w, u- p&kv&] ds fl )k&r&ka&v&l&g& y&f; k&a ds i&f&ri&f&rc) r&f&u&H&kk&uk&Ab&l ?k&sk.k&k& ds r&h&uf&n&uck&ng&hi& f&d&L&rku us dkj&f&xy ;@ N&M&+fn; kA



**dkjfy ; 1999%**

ikfdLrkuhl sudkavk d'ehjvkradokfn; ka us tEed'ehj ds dkjfyfya ?kd iB dh FkhAkkjrh; I suk us bl le; dbz/kWjs kuHkpyk, AHHkjr; I suk us ok; q suk dh enn I s Vkbxfgyij d'ctkdjfy; kvk ikfdLrkuhl sukdkofil tkuki MKA

**vxjk'k[kjokr]2001%**

izkkueah oktish ds fuea.k ijHkjr&ikdf'k[kjokrk ds fy, ikfdLrku ds jk"V9 frijostedkjD 14 tykbl 2001 dkrhufnol h; ;k=k ds fy, ubInYhi gba vxjked Ei Uuf'k[kjokrk]s 16 tykbl dh jkrpknj i jgkus ds cknrc>Vdlyxktcf d ?kksk.kki = ijl gefr ds fcukj"V9 freqkjD bLyekcknjokukgx, Al a Qr ?kksk.kki = ed'ehj dks eq; eqs ds : iea 'kfeydjus ds l oky i jnkuki {kkaefrjksk mHkj djvk; KA

**I l nHkouifj j ewkradhgey]2001%**

13 fnl Ecj] 2001 dkd nHkouifj j ewkradhgeys I s Hkjr , oafkdLrku ds I Ecl/kkaEkhjruko dh fLFkrmi UugksbAgeyei ikfdLrku effkry'dj&, &rbck o tSk&, &ekEen dk gkfgkus ds iek.kfejus ds cknHkjr us ikfdLrku ds ifrdMk : [k viuk; KA bl I nHkEbLyekcknfl.FkrHkjr; mPpk; Qrfot; ukfEc; kjdkoki l cykus ds vfrfjDrubInYyh o bLyekcknfl.Fkri kjLi fjd mPpk; ksxa 50 ifr'krdVks hdj ufnYyh&ykgk cl I ok o le>sk , Dli jyxkMkds cn djus ds fu.kz Hkjr l jdkj usfd, gdi ikfdLrku us HkhukxfjdmMkukajifrcak yxfkn; KA

**I heki j 'Wrgbkyadh vxv]okt i s bLyekcknea**

ikfdLrku ds I Ecl/k l dkkjus dh fn'kea , d dkjQjvi uhlvj I sigydjrgq 22 vDVej 2003 dkkjr us 12 I h u, iLrkoka dh ?kksk.kkdhAylskesytky c<ukghbuiLrkoka dk I kjgdi ikfdLrku ds izkkueah teky us bh ds fnu I s tEed'ehjeu; a.k j jkk ij , d rjQk ak'kzojke dh ?kksk.kkdjHkjr I s l dkjRedtokenus dh eaktrkbAHHkjr us fu; a.k j jkk ijl ak'kzojke dh ikd dh iskd'keatj djrgq fl pfpk {ks- I s Hkh ak'kzojke dh iskd'kdhA

fnl Ecj 2003 eubInYyheinkulns kis ds vf/kdkfj; ka dh ukxfjd mM; u I Ecl/khkrpkr 'kq gkus dh iwl I a; k ij jk"V9 freqkjD us Hkjr; foekukki kdok; q hek I s mMeus dh btktrnus dh ?kksk.kkdhAnkulns kka ds chp 1 tuojh] 2004 I s ok; q Ei dz [kyus j l gefrcuhAnkulns kka cl I okcgkygksbAHHkjr us ml s c<kusv]j sy l E d bgydjus ds I kfeqcbzjkphaty; kul ok 'kq djus dh iskd'kdhA tEed'ehjeu; a.k j jkk ij xlyckj hcl n l heki j , d h 'kkrurdbb"kkcncuhA

**I kd] Eeyu]2004%**

tuojh 2004 ebLyekcknegkusokyd kd] Eesyuei zkkueah oktish us Hkxfy; kArhufnol h; I kd] Eeyu ds I ekiuj 6 tuojh 2004 dkkotish , oedkjD dh eykdkr ds nskufonskl fpolrj dh okrk ds vk; kstu dk Qs ykd; kx; kAbI hf l yf l yea 18 Qojh] 2004 dkbLyekckned Ei l urhufnol h; fonskl fpolrj; okrk 'kkririgy ds fy, rskj ^cfu; knh : ij jkk\* ijl gefrcuhAokrk ds lk'pkr-l a Qrc; kuegloi wkrclng& okrk ds ckn tkjh exokrk f0; k 'kq djus dh ?kksk.kk dh xbl ft l ead'ehj l fgrvkBegroi wkrka ds l ek/kku ds fy, 'j kMeS\* rskjfd; kx; ka



, d ikplw h , tsMs dh ?kksk.kk dh xbZl pkphu] rycyifj; kstuk] l jØhd] vkradoknvkjekndinkFkka dh rLdjh rFkvvkFkZl&okf.kfT; dl g; kx l fgrfofHku {s-kæeS-hi wka/knku&inku ds i k l kgugr q t y k b z 2004 e d k r k j k s c h A

bl okrkz l s i o e b z 2004 e i j e k . k i o ' o k l c g k y h d s m i k ; k a j f o ' k s k K L r j d h r F k k t u p 2004 e e k n d i n k F k k v k s v l ; o L r y k a d h r L d k j h d s c k j e o k r k j k s c h A i k f d L r k u h j a t j d s e g k f u n s k d v l s j l h e k l j { k k c y d s e g k f u n s k d d s e / ; e k p & v i s y e d h e k i c l / k u ? k q i B , o r L d j h j k d u s j o k r k j k s c h A n k u k a n s k i s d s f o n s k e a = ; k a } k j k v x L r 2004 e e y k d k r d j d s b l f n ' k k e g p l e x i x f r d h l e h { k k d h t k , x h A

**fØdV dVulfrvlsjKVifredkjDfnYyheaWisiy] 2005½**

fØdV ds c g k u k k j r v k , 1 6 & 1 8 v i s y ] 2005½ i k f d L r k u h i j o s t e d k j D u s r h u f n u d s r o k u h n s j e k k j r d s l k f d ' e h j e l y i j v l g e f r d s k o t m n k u k a n s k k a d s c h p l E c l / k l d k k j u s k s f o ' o k l c g k y d j u s d s f o f H k u m i k ; k d k s y k x a d j u s d h e d k k t r k b A 18 v i s y ] 2005 d k n Y y h d s g h j k c k n g k A l e i z k u e a h e u e k s u f l g r F k k j ' k V i f r i j o s t e d k j D u s l k > k c ; k u e a ? k k s k . k k d h f d ' k k f u r i f Ø ; k d k s " v c o k i l u g h e k m k t k l d r k v l s j v k r a d o k n d s ' k k f u r i f Ø ; k d h j k g e a v k m u g h v k u f n ; k t k ; s k A " e u e k s u f l g v i s j i o s t e d k j D d h c k r p h r e d n , d B k e q k a j i x f r g p t t u i j i g y n k u k a n s k k a u s v f M ; y : [ k v i u k j [ k k F k k A ; s e i g & J h u x j & e t T Q j k c n c l l o k d s Q j s c < k u s j l g e f r ] i k f d L r k u s v k r a d o k n d s ' k k f u r i f Ø ; k e a c k / k k u g h i g p u n s u d k g k A l a p r v k f k Z d v k ; k s x f B r d j u s j l g e f r ] e i c b v l s j d j k p h e d k y d s v l r r d o k f . k t ; n i r k o k l [ k s y u s ] [ k k f k j k i k j & e u k c k v l s j y l E i d z r F k k & i k f d L r k u p k r g r k g f d H k k j r t E e d ' e h j e f u k c u n h i j 450 e s k o k V d h f c t y h i f j ; k s t u k / c x y h g k j ½ d k f u e k z k j k d n a n k u k a n s k v k i l h c k r p h r d s t f j , e i c d k y > k u s j l g e r g q A

**Hkjz&ikd c<fkl Eidz'2006½**

20 t u o j h 2006 d k s e r l j o y k g s d s c h p c g i r h f { k r c l l o k i k j E h k g r g h H k k j r d k i k f d L r k u d s c h p r h l j k l M e d e x z [ k y x ; k A v e r l j o u u d k u k l k g e d s c h p l c l o k 24 e k p z 2006 l s i k j E h k g p z a v v k j h & y k g s l e > k k , D i i l d s c k n n l j h j s x k m h F k k j , D i i l d k i f j p k y u 18 Q j o j h ] 2006 d k g y k A 14 t y k b z 2006 d k e i c b v l s j o l Q k s / k s f t u e a 200 l s T ; n k y k s e k j s x , ] i g y h c k j H k k j r u s ' k k a r o k r k z ' k q g k u s d s c k n l i " V l a r f n ; k f d o k r k z [ k r j e i M + x b z o L r r % e d k j D u s t u o j h 2004 d s v i u s m l o k n d k k h i j k u g h i d ; k f t l e m l g k u d g k F k f d i k f d L r k u v l s j m l d h l j t e h d k k k j r d s f [ k y k Q v k r a d o k n d s f y , b L r e k y u g h g k u s a A

**golukvfujišk f'k[kj l Eesy'2006½**

14&15 fl rEcj] 2006 d k g o k u k e x v f u j i s k f ' k [ k j l E e s y u e e u e k s u & e d k j D e y k d k r d s c k n ; g r ; f d ; k x ; k f d n k u k a n s k l a p r : i l s v k r a d f u j i s k h r a f o d f l r d j a r F k k l k f g h n k u k a n s k t Y n g h f o n s k l f o l r j d h o k r k z Q j l s ' k q d j a A v k r a d o k n h ? k v u k v a l s j r e k e r j g d h c k / k v k a d s c o t m n k u k a n s k k a d h l j d k j i t i r j g l s c l v l s j y l E i d z g y d j u s d k l g l f n [ k k ; k A m l l r h F k k u ] i ; v u ] 0 ; k i k j ] l k d f r v k n u & i n k u c < k o k f e y k A



fni Ecj 2006 ejk"V9i fredkjD us tEe&d'ehjleL;k ds lek/kku ds fy, ,d u; kpkj&l #h; Okeiyki s'kfd; kftl Hkkjr us vLohdk; Zryk; kAVI upkj&l #h; Okeiyed'ehj dh lhekvlkndkbnkyo u djuš ogk; ls l suk, g'Vkuš nksukns kka ds l a Pufuxjkuh r# ds rgr-ogk; Lo'kkl u , od hekvka o fu; #.k jškk dksviki šxdcucus dh ckredkjD us dghAQjoh 2007 eghnksukns kka us ijek.kgffk; kj ds nqk/uko' kblRnky ds tks [keedehykus ds l e>ks i j g Lrk {kjfd, A

d'ehjeksyest l Eesy 24&25 eb] 2006% Jhuxjei zkkuea#h euekgu fl g dh v/; {krkenknol h; 24&25 eb] 2006 dksksyest l Eesyul Ei l u g y k A

27 fni Ecj] 2007 dki kfdLrku dh i w z k k u e a # h c u t h j H k j V k s dh g R ; k d j n h x b A b l g R ; k l s i k f d L r k u d s v k / k u d h d j . k dh r k d r k a d k x g j k / k D d k i g p k A 25 e k p z 2008 dki kfdLrku us , d c k j i q % y k d r k i = d ; q e a m l l e ; i o s k f d ; k t c y k d r k i = d r j h d s l s f u o k z p r i z k k u e a # h l \$ n ; u Q j t k f x y k u h u s ' k k l u dh c k x M k j l H k k y h v k e p i k o k a d s c k n v k l Q v y h t j n k j h i v š u o k t ' k j h Q ' f d a e d j ' d s : i e m H k j s t c f d j k " V i f r d s : i e e d k j D dh g š l ; r d e g p z ; k u h l ū k k l e h d j . k e d H k j h c n y k o v k x ; k A

i k f d L r k u d s j k " V e . M y l s f u y E c u e b z 2008 e d e k l r g k x ; k A H k j r v š i i k f d L r k u d s c h p 2010 r d x \$ i k b i y k b u v k j E h k d j u s i j g e f r d s v k l k j c u g A

18 v x L r 2008 d k j " V i f r t u j y i j o s t e d k j D u s H k j h f o j k k v š n c k o d s c h p l a n e e g k f h k ; k x d k l k e u d j u s l s i g y g h b L r h Q k n s f n ; k A e f ' d y ; g g š d e d k j D d s c k n f t u ' k j h Q t j n k j h i j i k d f V d k g š o s [ k n f o i j h r / k p g A

i k f d L r k u d s ; g l i p r f d ; k x ; k f d 26 u o E c j 2008 d k e f c b i j v k r a d h g e y k i k f d L r k u l s v k , r R o k a } k j k f d ; k x ; k A i z k k u e a # h e u e k g u f l g dh ' k e & v y & ' k š k e a v f u j i š k f ' k [ k j l E e s y u 1 t y k b z 2009% e b r j i k f d L r k u d s i z k k u e a # h ; u Q j t k f x y k u h d s l k f k h k o k r i z g p e j c b z e a 26 u o E c j d s v k r a d h g e y s d s i ' p k r - H k j r o i k f d L r k u d s ' k h " k z s k v k e e y k d r d k ; g n i j k v o l j F k k j b l d s i w z k f d L r k u d s j k " V i f r v k l Q v y h t j n k j h d s l k f k M k W e u e k g u f l g dh o k r k z t u 2009 e a : l e a ; d k V š j u c x z e a ' k a k k b l g ; k x l a B u % 60% d s f ' k [ k j l E e s y u d s b r j g p F k h A ' k e & v y & ' k š k e i i k f d L r k u h i z k k u e a # h f x y k u h u s H k j r h ; i z k k u e a # h d k s v o ' o l r f d ; k g š d m u d k n s k v k r a d o k f n ; k a d s f o : ) d M h & l & d M h a d k ; b k g h d j s e k r F k k 26 u o E c j d s e f c b g e y s d s n k š " k ; k a k k d V ? k j z e a [ k M k d j u s d s f y , g j l E h k o i z , k l d j s c k A f } i { k h ; o k r k z d s i ' p k r - t k j h l k > k c ; k u e a y t i p L r k u d k k h ' k k f e y f d , t k u s d s d k j . k f o i { k h n y k a u s l j d k j dh v k y k p u k dh g A f } i { k h ; o k r k z e n k s u k i z k k u e a # h ; k a u s ; g r ; f d ; k g š d n k s u k n s k k a d s f o n s k l f p o v k o ' ; d r k u d k j f e y r j g a r F k k v i u h c k r p h r d s f u " d " k k z l s f o n s k e f l = ; k a k s v o x r d j k r j g a A

**Hj r & i k d o k r i z 2010%**

b l y e k e c k n e d E i l u H k j r i k d f o n s k e f l = ; k a dh o k r k z 15 & 16 t y k b z 2010% l s t 9 h m E e h n F k h j i f j . k k e t h o s k g h l k e u s v k ; k A c k r p h r d k s y d j H k j r l j d k j H k y g h d k b z k f k z d i f j . k k e f u d y u s dh v k l y x k , c B h g A y š d u n s k dh t u r k d s ; g i r k F k k d , d h c k r p h r l s u i g y d k b g y f u d y k g s k š u g h h k f o " ; e f u d y u s k y k g a n k s u k n s k k a d s d j k l a y k s h k y g h v e u v i š H k k b p k j s dh c k r l k p r g k j y š d u i k f d L r k u d s g p e j k u d H k h u g h p k g a f d n k s u k n s k n k l r h dh x k M h i j l o k j g k A 16 t y k b z 2010 dki kfdLrku ds





fcfy; uMkyj ds vkaMs Is nq;uhg;schAo"lz 2015 rd ;g f}i{kh; 0; ki kj 10  
fcfy; uMkyjrdig;pl drkgS ; fnnksukns'kvoj kskka ds le{k p;pk; ;g  
g;sdod kefjdfp;lrkvk;sd;l idkjv;fk;f;de;ika Is vyxdj;Amnkgj .kk;f;f;  
nksukns'kvQxkfuLrku;vi us&vi usi Hkkodk;sydjgk;M+ ey;xgq g; ,oa ,d ni;js ds  
bjknk; jfo' okl ugh;dj;A

ikfdLrkuh sik;e;f;k tu;yyv'kQk;di;ost;d; kuh us vi;sy 2012 e;dgkfd "k;rv;f;g i;kfdLrku  
ds ch;pl Hkhe;pn;k;dk;gyfd; ktkuk;pk;fg, r;f;d  
'kk;ri;wk;l g&v;f;Lr;R;odk; fuf'prfd; k;tk;l d;A;f;xykuh us phue;v;k; k;f;tr;cl;s'kv;f;Q;k;e;Q;k;f;  
, f;k; k;dk;l E;ck;f;kr;d;rgq d;gk;g;sdmudknsk "k;rl f;grv;f; n;skka ds  
l k;f;kl E;cl;w;kl;dk;l d;kk;ju;e;at;g;kg;A

2013 ikfdLrku us "k;rv;f;g i;kfdLrku us "k;rv;f;g i;kfdLrku us "k;rv;f;g i;kfdLrku us  
ch;pd'eh;j] fl ; k;phuv;f;g;oh;t;kt;f;g;cg;reg;roi;w;ke;pn;g;it;lg;l;g;v;>kus dh  
vko'; drkg;A t;e;nd'eh;je;u; U=.k j;f;kk bn;x;n;l kfdLrku }k;kl ;k;"k;f;oj;ke dk  
ckj&ckj;M;Y;akufd; st;ku;sd;s;dk;h;j;f;park dk fo"n; crk;rg;g;s "k;rv;f;g i;kfdLrku dh  
mdl kus;ky;hd;k;j;ok;B;L;F;f;rea ,d fu.kk; de;km;+ g;A i;kfdLrku ds l k;f;f;on;sk;l f;po;L;rg; dh  
ck;pr;h; Is ig;ys "k;rv;f;g i;kfdLrku us "k;rv;f;g i;kfdLrku us "k;rv;f;g i;kfdLrku us  
dh vi;f;kk ,d;s le; e;ugh;dj;rk;t;cn;sk;d;b;mr;k;j;&p<ko Is x;f;f;g;kg;A "k;rv;f;g i;kfdLrku  
,d v;f;g i;kfdLrku;dk;s ,yv;kl hi;j;l ht;Q;k;j ds m;Y;akur;f;kk "k;rv;f;g i;kfdLrku; ds  
fy, d;M;kl n;sk;f;n; ky;f;du;f;Q;j "h "k;rv;f;g i;kfdLrku; i;f;zkue;=h eue;kgu fl;g vi;ud; n;sk;ea  
'kk;ri;v;f;g; i;g; k;x ds i;f;rd;f;v;c) rk dh ck;rd;rg;g;A

**lft;dy;LV;bd 2016½**

Hk;rv;f;g; i;kfdLrku; us Hk;rv;f;g; i;kfdLrku; us Hk;rv;f;g; i;kfdLrku; us  
vkr;dk;ok;n;h;x;f;rf;of;k; k;dk;sv;at;ken;su;k;yl; f;t;dy;LV;bd;dk;sv;at;ke;fn; k;A;t;sv;kr;dk;ok;n;h;x;f;rf;of;k; k;dk;sv;at;  
tk;enus ds fy, l;he;ki;k; Is r;f; k;j;hd;j;g;f;ka; i;kfdLrku; us ,d; h;fd;l; Hk;rv;f;g; i;kfdLrku; k;A Is  
bl;dk;j;fd; k;A

**mjh;ge;yk 2018½**

Hk;rv;f;g; i;kfdLrku; us Hk;rv;f;g; i;kfdLrku; us Hk;rv;f;g; i;kfdLrku; us  
l;f;de;k;f;g; A

**iy;ole;ge;yk 2019½**

vkr;dk;ok;n;h;l; eg; }k;kl; hv;k;j;i;h, Qd;f;e;f; k;dk;sv;at;ke;fn; g;ok;g;uka ds  
dk;f;Q;v;f;g; i;kfdLrku; us "k;rv;f;g; i;kfdLrku; us "k;rv;f;g; i;kfdLrku; us "k;rv;f;g; i;kfdLrku; us  
n;t;k;f;il; y;sv;k;j;bl; d;sv;k; k;ri;j; 200% d;L;V;e; M;w;hy;x;kus Is i;kfdLrku; i;j;v;f;f;dk;di;f;rc;dk;ka dk  
ur;R;of;d; k;A l; a; Q;r;j;k;"V;" l; g;{kk; i;f;j;"kn-e;ll;ki; y;ole;ge;vkr;dk;ok;n;h;ge;yk; dh; ful;nk; dh; x;B;A

**ck;yd;kl; ;j; LV;bd**

Hk;rv;f;g; i;kfdLrku; ok; d; sv;k; us i;kfdLrku; ds ck;yd;kl;e;" f;oj;k;i; j;ce;f;x;j;dk;j;gok;bz;ge;yk;f;d; k;f;t;l; ea 300  
vkr;dk;ok;n;h;e;k;f;g; A;ik; y;V;dk; i;kfdLrku; us i;dk;M;+ fy; k;A;Hk;rv;f;g; i;kfdLrku; ok; d; sv;k; ds  
fo;x;de;kl;j;v;f;f;ku;mu; o;k;e;ku; dh; f;j;g;k;b;dk; i;kfdLrku; dh; v;f;g; Is 'kk;ri;l; d;sv;ek;ut;kr;kg;A; y;f;du;  
l;e; ds l; k;f;f;kl; k;f;f;Hk;rv;f;g; i;kfdLrku; ds ch;pd; dh; l;e;l; k;v; k;f;f;ruko

<sup>2</sup>ifr; k;xrk ni;Zn; e;f;l; d; if=dk 2019





c<rtkjgkAD; kcdHkjr us mu Hkjr rh; ufn; ka ds i dgdtkjklus dk QS ykfd; kt kfi U/kq ty I fu/k ds vuq kj Hkjr l s l Ec d/kr Fka

**vkVdy 370 vj 35, dk fuji u '2020%**

5 vxLr 2020 dkg kT; I Hkka, d , srgkfi d ?kksk.kk dh xbAftl d rgr /kjk 370 vj 35, t'kst Ee&d' ehj dko' kskj kT; dk ntkhr kgj vflRoeughj gskA t'Ee&d' ehj i uxBuvf/kfu; e 2019 d kdkh 'kfe yfd; kx; kAifdLrku ds }kjk Hkjr ds bl dne dk foj ksk fd; kx; kAifdLrku us Hkjr ds l kFkl Hk f}i {kh; I Ec d k k f u y f i c r d j f n ; kA y f d u v x j d ' e h j d h l e l ; k d k s n [ k a r k s ; g , d , d k i z u u t j v k r k g s t k n k s u k a n s k k a d s l E c / k k d k j k ' V b k n l s H k j n r k g d f O j H k h n k s u k a n s k k a d s } k j k b l l e l ; k d k g y d j u s d s f y , l e k / k u < r s t k j g g a y f d u 21 o h l n h e H k j r v l s i k f d L r k u d s l E c d k k d k s n [ k k t k , r i s b u d s c h p e d d k j k R e d i f j . k k e v k u s d h l H k k o u k u d s c j k c j g a ; k ; k f O j d g d f O y g k y r k g y k r , d g d n d k s k a i M e l h n s k k a d s c h p f j ' r s v l s [ k j k g k s u s d k e g k s y c u k g a / k g a b l l e ; f j ' r n e d d k j d h x q t k b ' k r k s u g h n [ k r h A H k j r v l s i k f d L r k u e a b l l e ; d k O h x j e k & x j e h g s / x j g e g y k r k d k s v l s f c x M e u s l s c p k l d a r k s ; g c g r c M a m i y f c / k g s c h A 2019 d h ? k V u k v k i j v x j g e l g h e k ; u k e a u t j M k y r k f d 2020 d k l k y H k j r v l s i k f d L r k u d s l E c d k d s f y g k t l s d s k j g u o k y k g a 2019 d s ' k a v k r h e g h u e g h i k f d L r k u f l E k r v k r a d o k n h l a B u t s k & , & e k g E e n u s i y o k e k d k v k R e ? k k r h g e y k f d ; k F k A b l g e y e d h v k j i h , Q d s 40 l s T ; k n k t o k u ' l g h n g l o x ; F k A b l ? k V u k d s c k n l s g h n k s u k a n s k k a e d E c d k k a d h f x j k o v d k n s j v k j H k g l o x ; k F k A b l g e y e d k s n [ k r s g g ] H k j j r t k d k O h n ' k d k a l s v i u s A i j c a n ' k y x k , c B k F k k ] m u l s k t k n g l o r s g g ] i y V o k j d s i k f d L r k u d s c k y k d k / i j g o k b g e y f d ; F k A , d k i g y h c k j g a / k F k t c H k j r u s i h v k d s u g h e f y d i k f d L r k u d h v l y h l h e k d s H k h r j ? k d d j g e y k f d ; k F k A i k f d L r k u u s H k h H k j r d s b l g e y s d k t o k f n ; k v l s , d k y x j g k F k f d n k s u k a n s k k a d s c h p [ h y k ; d ] f n M + l d r k g a y f d u n k s u k a n s k k a u s ; d ] d s d j h c t k d j H k h v i u s j k a c k i h n s [ k h p u k g h v P n k l e > k A y f d u b u l c ? k V u k v k a u s i k f d L r k u d k s ; g , g l k l t : j d j k f n ; k f d v x j i k f d L r k u d h r j Q l s v e d k b k h v k r a d o k n h d k ; I d ; k t k r k g s k k k j r H k h v c i h N g V u o k y k u g h g a v e v k r a d o k n d s u k e l s i k f d L r k u H k j r e a v l s n g ' k r u g h Q S y k l d r k g a

vxLr 2019 eegq n h j o k a r d k j h i f j o r z u u s r k i k f d L r k u d k s / n j r d f g y k d j j [ k f n ; k A H k j r d h e k n h l j d k j u s t E e & d ' e h j d k o ' k s k n t k h s u o k y h v k V d y & 370 d k d j j h c & d j h c [ k R e d j f n ; k A l k F g h d ' e h j d k n k d b n z

' k k f l r i n s k k a e h k h c n y f n ; k A b l l s i k f d L r k u d k k ; d j l n e k y x k A e k n h l j d k j d s b l Q S y s d s c k n i k f d L r k u d s l k F k l E c d k k a e t k s x q t k b ' k c p h F k h o k s H k h d g h e u & d g h H k j r u s [ k R e d j n h v l s H k j j r d k s ; g m E e h n F k h f d b l Q S y s d s c k n i k f d L r k u t : j v i u h d N & u & d N i f r f O ; k n s k v l s i k f d L r k u u s n f u ; H k j e a ' k j e p k u k v l j H k d j f n ; k f d H k j r ] d ' e h j e j D r i k r d h r s k j h d j j g k g a ; s c r k d j o k s n f u ; k d k M j u k p k g r k F k f d b l o t g l s y k [ k a y k s d ' e h j l s i k f d L r k u p y s t k ; a s v l s d ' e h j d h v k c k n h d h l j p u k c n y t k ; s c h A b u l c ? k V u k v k a d s c k n i k f d L r k u d s i z k k u e a h u s H k j r d s l k F k d v u h f r d l E c d k k a d k n t k g V k u s d k , y k u d j f n ; k v l s i k f d L r k u e H k j r d s j k t n r d k g V k f n ; k x ; k v l s i k f d L r k u u s H k j r d s l k F g j r j g d k d j k c k j c a n d j f n ; k A c k y k d k s / g e y s d s c k n H k j r u s i k f d L r k u d h t k s ' e k V Q o M z s u ' d k t k n t k f n ; k F k o k s H k h o k i l y f y ; k v l s i k f d L r k u i j ' k q d H k h c < k



fn; kx; kAbul c ?kVukvka ds cknHkkjrvl\$ i kfdLrku ds chp0; ki kjukeek= dk jgx; kAyfdudN le; cknghi kfdLrku ds izkkuea=h bejku [kkudkHkkjr l s 0; ki kj can djus dk viuk ; s O\$ yknyuki M&D; kfidogka ds ykxkudks ; g , gl kl gksx; kFkfdmUgnokvka dh l [r t: jr gSt kbUgHkkjr l s ghi klrgek drhgAbi dskotind'ehj i jHkkjr ds dne l s vkt dh rkjh[k eHkkjrvl\$ i kfdLrku ds ykxukeek= ds l Ecak jgx; gAjktuf; dl Ecak cgr l hfergkx; kgSv\$ dWuhfrdl Ecak u ds cjkjcgA

vkfVdy 370 gVkus ds cni kfdLrku ds Hkkjr ds djrkjijxfy; kjs [kksyus ds O\$ ydks/kxfid; kAgkykfdi kfdLrku ds bl rjg ds dnemBkus l s ykxkudksyxfid 'kk; nnksukns kka ds l Ecak dNI dktk; a\$ y\$duugH oks ml dsk/; e l s [kkyLrkuvklUnksyueubz/kxOndukpgrkFkAdjrkjijxfy; kjk [kgyuds cknksukns k , d&nI jdkl dkjRedutfj, l sn\$kus ds ctk; l ng dh n\$V l sn\$kyuxAvfo'okl ds , d ekgsy ds l kFkghHkkjrvl\$ i kfdLrku us 2020 dk vlxktdf; kgAnksukns kka ds l Ecak vc , d&nI jdkl /kfd; knsus ds Lrjrdigppd\$ tcrdbejku [kkui kfdLrku dh l Ukked\$ crdHkkjr ds izkkuea=h ds l kFk muds tgjhyc; kuvkrj gaeA

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## SMART NEONATAL INCUBATORS FOR PRETERM BABIES WITH SMART CONTROL SYSTEM USING IOT

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### Abstract:

Preterm baby requires surrounding exactly similar as in the womb to cope with the external environment. To provide the similar environment as in the womb infants must to be kept in a device known as Incubator. This paper proposes a Smart Incubator for infants based on IoT technology. In smart incubator the medical data can be checked through mobile phones or computers by the doctors or nurses from the place where they are accessing by the cloud storage through the internet. This gives a reliable and efficient infant monitoring system that can play a vital role in providing better infant care. This system monitors the vital parameters such as body temperature, pulse rate, oxygen level and this information is transferred to their parents. The medical data can be viewed from mobile phones. The change in health parameters can be closely monitored using this method. The accurate values are displayed so that the doctors can check the baby's health easily and they can avoid babies having health problems.

**KEYWORDS:** Arduino, Node MCU, IOT, Temperature Sensor, Heart Beat Sensor, Baby Incubator

### 1.Introduction

Preterm delivery is defined as the occurrence of birth at less than 37 weeks of the gestation period. In 2015, the World Health Organization (WHO) estimated that in 1 million among 15 million of preemies do not survive due to prematurity, making in turn preterm birth ranked as the second-leading reason for death for children who did not complete their fifth year and the number one fatal syndrome in the first month after birth. To suppress this mortality rate, a special unit known as the Neonatal Intensive Care Unit (NICU) is designed for premature babies care in hospitals. The health of the baby is maintained and monitored through this unit that encloses various types of monitors, and equipment utilized in different processes to achieve this objective. The main instrument in NICU is the incubator.

An incubator is an apparatus used to monitor and maintain environmental conditions suitable for a premature baby. It is used in preterm births or for some ill fullterm babies. The baby's health conditions are maintained properly. The incubator monitors oxygen level and pressure levels. It also monitors temperature, radiation pulse activity and air humidity, gas around the environment.

IOT (Internet of things) is a relatively new technology, more and more integrated into our lives. In this paper we introduce the application of IOT technology to reduce the risk of the use of medical devices, and through the dynamic management to improve the management level and efficiency. Put forward a method of medical equipment linked. Combined with the IOT technology and sensor technology, we find out the actual needs of the management and use of infant incubator. For the dynamic management of medical equipment, we use sensors to control risk points. The system meets the needs of the hospital and patients in many areas.

The aim of our project is to develop a new smart hatchery for premature infant. We tend to make it affordable, feasible, friendly and meet the health requirements for premature infants especially in low-income countries. In smart hatchery we use various sensors and data transfer devices which stores the data and transfers it to the cloud storage. The medical data can be viewed from mobile phones and computer. The medical data can be accessed from anywhere through the cloud storage. If there is any problem with the medical data and short circuit current the sensor gives the alarm signals to the cloud connected doctors and nurse mobile phones. They can prevent the baby affecting from problems.

## 2.Existing System

Premature babies need extra help while their bodies catch up on the growth and development they missed in the womb (uterus).



Fig 2.1 Existing System

The neonatal unit provides this in several ways. It's harder for your premature baby to stay warm because he can't regulate his own body temperature yet. A special Incubator can help with this. Some babies who are born early need help with breathing for a while, until their lung development catches up. Babies who are weak or very ill may also need help with breathing. If your baby is too small, too premature or too weak to feed, he might receive fluids and a nutrition mixture through a drip. Or he may need a tube that carries milk into his stomach. Premature babies also need extra monitoring, treatment and care because they can be more vulnerable to infection and other medical problems. About half of babies in the neonatal unit were not born prematurely but need treatment or care because they are ill.

On the neonatal unit, a skilled team of people from different professions will care for your baby. Some of the people you may meet include:

- Staff and specialist neonatal nurses.
- The senior nurse in charge of the unit
- Consultant paediatrician or neonatologist
- Specialty paediatricians
- Physiotherapists
- Pharmacists.

This means everything from changing nappies, feeding and cuddling your baby, through to agreeing your baby’s medical treatment plan with his consultant.

### 3.Proposed Methodology

An incubator is an apparatus used to monitor and maintain environmental conditions suitable for a premature baby. The incubator monitors oxygen level, pulse rate and pressure levels and temperature. In smart incubator we use various sensors and devices which stores the data and transfers it to the cloud storage. The medical data can be viewed from mobile phones and computer systems. The medical data of an infant can be closely monitored and accessed from anywhere by the cloud storage. The design is based on Internet of Things(IOT) and Sensor technologies that measure the essential parameters that must be controlled for babies. Variations occurred in this result immediately given alert message to given alert to the doctors and parents. This paper propose a system which can be very useful for bio-medical applications, where doctors can monitor the infant condition from the place where they are sitting and hence proper and timely care to the patient can be given. They can prevent the baby affecting from problems.

#### 3.1.Block Diagram

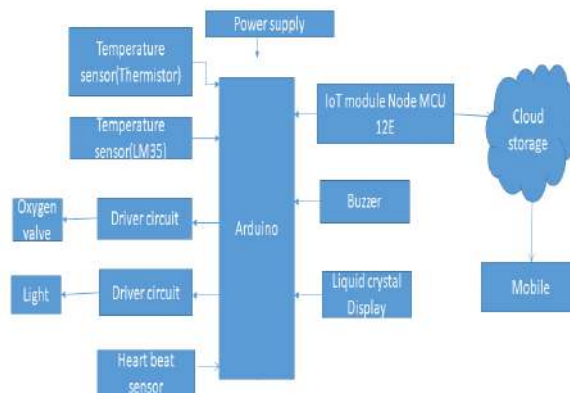


Fig.3.1.BlockDiagram of Proposed System



The block diagram of the proposed system consists of LDR Sensors, Temperature Sensors, Heart Beat Sensors and oxygen sensors. A Thermistor is used to measure the Temperature of incubator. It is implemented by Node MCU and Arduino. Here Wi-Fi network and cloud storage for storing medical data has been used. So that the data can be viewed in mobile phones and laptops. If there is any problem with the medical data we can directly check the incubator so that the babies can be saved from improper health conditions.

### 3.2. Monitors

Some of the machines you see attached to your baby are monitors that track his condition from minute to minute and show the results on a screen. These monitors may be keeping a check on his/her:

- Pulse rate
- Blood pressure
- Breathing
- Temperature

## 4. Hardware Requirements

The Hardware Requirements includes:

- Temperature Sensor
- LDR Sensor
- Heart Beat Sensor
- Thermistor
- Node MCU
- Arduino

### 4.1. Temperature Sensor (LM35)

The LM35 is one kind of commonly used temperature sensor that can be used to measure temperature with an electrical output comparative to the temperature (in °C). This sensor generates a high output voltage than thermocouples and may not need that the output voltage is amplified. The LM35 has an output voltage that is proportional to the Celsius temperature. The operating voltage range of this LM35 ranges from -55°C to +150°C.



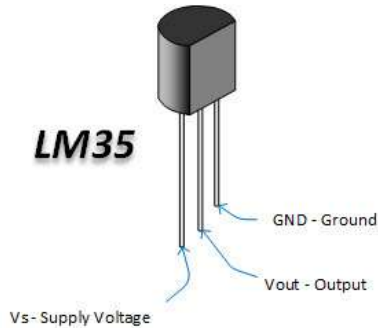


Fig 4.1 LM35 Sensor

#### 4.2.LDR Sensor

An Light Dependent Resistor is also called as Photoresistor, photocell, photoconductor. It is a one type of resistor whose resistance varies depending on the amount of light falling on its surface. When the light falls on the resistor, then the resistance changes. These resistors are often used in many circuits where it is required to sense the presence of light. These resistors have a variety of functions and resistance.



Fig 4.2 LDR Sensor

#### 4.3.Heart Beat Sensor

The heartbeat sensor is based on the principle of photo phlethysmography. It measures the change in volume of blood through any organ of the body which causes a change in the light intensity through that organ (a vascular region). In case of applications where the pulse rate to be monitored the timing of the pulses is more important. The flow of blood volume is decided by the rate of heart pulses and since light is absorbed by blood, the signal pulses are equivalent to the heart beat pulses.



Fig 4.3 Heart Beat Sensor

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#### 4.4. Thermistor

A thermistor is a temperature-sensing element composed of sintered semiconductor material which exhibits a large change in resistance proportional to a small change in temperature. Thermistors usually have negative temperature coefficients which means the resistance of the thermistor decreases as the temperature increases.



Fig 4.4 Thermistor

#### 4.5. Node MCU

Node MCU is an open source IoT platform. It includes firmware which runs on the ESP8266 Wi-Fi SoC and hardware which is based on the ESP-12 module. The term "Node MCU" by default refers to the firmware rather than the development kits. The ESP8266 Wi-Fi module is a self-contained SOC with integrated TCP/IP protocol stack that can give any microcontroller access to your Wi-Fi network. The ESP8266 is capable of either hosting an application or offloading all Wi-Fi networking functions from another application processor.

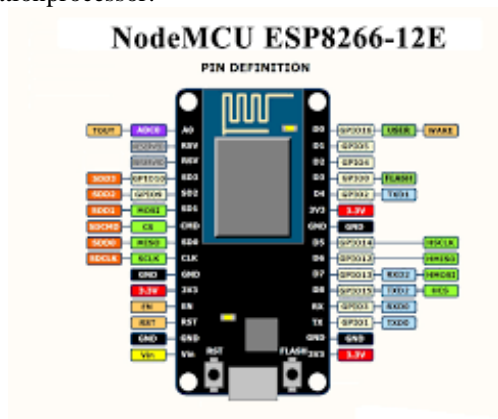


Fig 4.5 Node MCU

#### 4.6. Arduino

Arduino is an open-source platform used for building electronics projects. Arduino consists of both a physical programmable circuit board and a piece of software, or IDE (Integrated Development Environment) that runs on your computer, used to

write and upload computer code to the physical board. The Arduino platform has become quite popular with people just starting out with electronics, and for good reason. Unlike most previous programmable circuit boards, the Arduino does not need a separate piece of hardware (called a programmer) in order to load new code onto the board -- you can simply use a USB cable. Additionally, the Arduino IDE uses a simplified version of C++, making it easier to learn to program. Finally, Arduino provides a standard form factor that breaks out the functions of the micro-controller into a more accessible package.

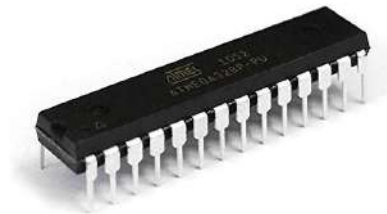


Fig 4.6 Arduino

## 5. Software Requirements

The software requirements includes:

- Arduino IDE (Embedded C)
- Proteus 7.7
- Internet of Things (IOT)

### 5.1. Arduino IDE

Arduino is an open source computer hardware and software company, project, and user community that designs and manufactures single-board microcontrollers and microcontroller kits for building digital devices and interactive objects that can sense and control objects in the physical and digital world. The project's products are distributed as open- source hardware and software which are licensed under the GNU Lesser General Public License (LGPL) or the GNU General Public License (GPL), permitting the manufacture of Arduino boards and software distribution by anyone. Arduino boards are available commercially in preassembled form, or as do-it- yourself (DIY) kits.

### 5.2. Internet of things

The Internet of things (IoT) is the network of devices such as vehicles, and home appliances that contain electronics, software, sensors and connectivity which allows these things to connect, interact and exchange data. Embedded with technology, these devices can communicate and interact over the Internet, and they can be remotely monitored and controlled.

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Fig5.1 Internet of Things

### 5.3. Proteus

The Proteus Design Suite is a proprietary software tool suite used primarily for electronic design automation. The software is set mainly by electronic prints for manufacturing printed circuit boards. This software allows you to perform schematic capture and to simulate the circuits you design

### 6. Result

The Cloud Storage Output is shown below:



Fig.6.1 Cloud Storage Output

When certain changes occur, it will be intimated through the message. The message output is shown:

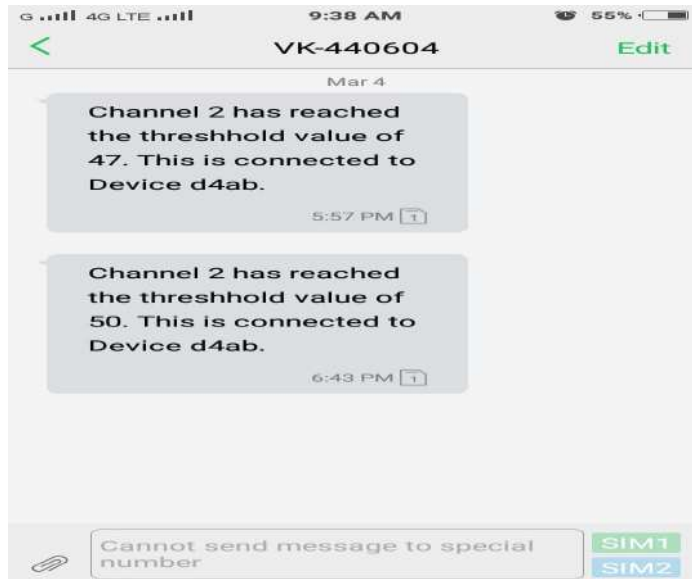


Fig. 6.2 Message to parents when the threshold value is changed

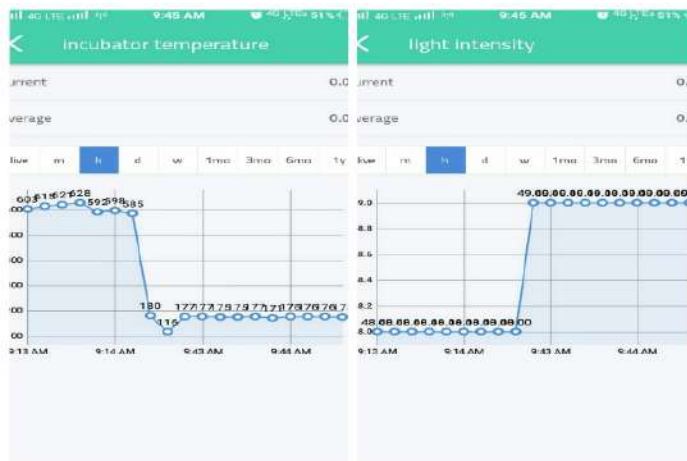


Fig.6.3. Variations in Incubator Temperature and Light Intensity

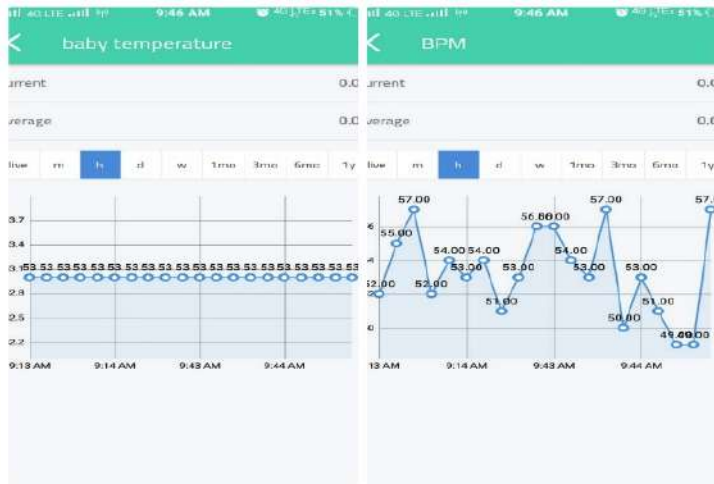


Fig.6.4. Variations in Baby Temperature and BPM

The hardware design of this project is shown below:

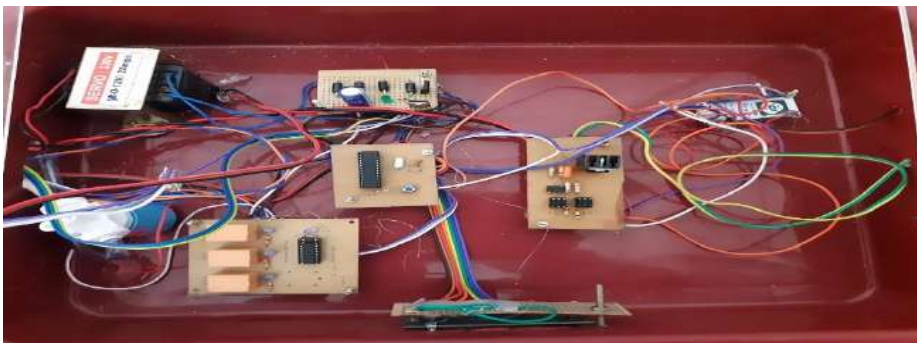


Fig 6.5 Hardware Design

## 7. Conclusion

The project is designed keeping in mind the medical conditions available in rural areas. This Equipment can be effectively used by technicians in a small health care centre. It can be a lifesaving machine for premature baby as well as low birth weight babies. The data is stored in cloud storage of a user and parameters values sent as a message to the signed user, when the Arduino is connected to the Wi-Fi network. The values can be checked for every second. It will give accurate values and that will be synced for every second. In future it has a great scope and it will have greater impact in



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medical society and the preterm babies will be saved from improper conditions and the health conditions of the babies will be under the control of doctors and nurses.

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## IMPLICATIONS OF WOMEN MOVEMENT IN INDIA AND POST INDEPENDENT PERIOD

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### **Abstract**

Women movement can be defined as a feminist movement that advocates the various issues of society. The natures of women movement are being different in time to time. In the pre independent period social reform movement were known as women movement. Raja Ram Mohan Roy's movement against Sati, child marriage, polygamy and he also advocated about the widow remarriage. There some another reformer like M.G. Ranade, Swami Dayanand Swaraswati who also wanted to reform the society as well. During the nationalist struggle women's participation and their efforts were memorable. Denying all types of stereotypes they came forward to fight for the nation. But after the independent the nature of women movement became changed that they begun to emphasize on environmental issues, caste based issues, crimes again women such as rape, sexual harassment, marital rape, domestic violence, kidnapping etc. After the adoption of Indian Constitution there were various provisions regarding gender equality makes people aware about their rights. Therefore in India various women movements arose and gave a direction to become self dependent or self reliant.

**Keywords:** women movement, consciousness, rights, demand

### **1. Introduction:**

Women Movement in India considered as New Social Movement. It basically refers some reforms regarding women issues such as domestic violence, sexual harassment, reproductive rights etc. and also some other issues like environment protection, equal pay etc. Women movement can be called as feminist movement and has a great significance. It brings the issues of gender equality and can portrait the sexual discrimination in the every society. UrbashiButalia (1998) and Ritu Menon and Kamala Bhasin (1998) have discussed about the absence of women's voice and contribution towards the political system in pre independence India.<sup>1</sup> They also discussed about the patriarchal nature of the Indian society. There were some women like Rassundari Devi, Swarna Kumari Devi who fought for the societal transmission and challenged the patriarchal nature of society. AgainPanditaRamabai's contributions towards women's empowerment and her effort to make women independent were commendable. Her book 'The Hindu Caste Hindu Women' reflected how her father took stand for her mother Laxmibai at the cost of being exiled by his own community. After that Laxmibai taught her daughter Sanskrit in the forest. Therefore it was cleared that from the pre independence period the concept of equal education, voice against patriarchy was started but could not reached the triumph. M.G. Ranade, Raja Ram Mohan Roy also contributed towards women's emancipation in 1800s. Women did participate in the Swadeshi Movement in the early 1900s and played an important role

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<sup>1</sup>Desouza, S. Mapping the Women's Movement in India. [www.asutoshcollege.in](http://www.asutoshcollege.in)



in the independence movement. During the pre independent period women's leadership was also encouraged by the British Women Movement for suffrage started in 1917 by Margaret Cousins, Dorothy Jinarjadsa and Annie Besant.<sup>2</sup>

During the nationalist movement women's participation was commendable. They got a platform to introduce themselves. They had believed that political independence of the country would translate into great gender equality. Women started struggle for their rights after the independence period as they inspired by the nationalist struggles. They changed symbol of those movements that they were not being Sita, Droupadi, Damayanti and wanted to become Kali. In the post independent era women movements took a different way where they brought various issues of women along with environment, caste system etc. Women movements since post independent era to present day have a very uniqueness in it. Because of Constitutional provisions women's rights are secured in some extent but still women have to suffer and fight for their rights.

## **2. Objectives of the study:**

- a. To discuss about the various women movements in India.
- b. To discuss how content of the women movement changed after independence.
- c. To measure the findings of these movement.

## **3. Post Independent Period and Women Movement in India:**

After independence women movement became much stronger and can shape the society. Constitution was adopted in 1950 that includes the important aspects of equality of men and women in all spheres of life (article 14-18). But because of diverse nature of India, poverty, caste system women have to bear a lot. In this period there were several initiatives taken which worked for the emancipation of women. In the pre independence period women movement can be discussed as social reform movements. So that this type of movement can be discussed in three distinct phases – phase 1 describes the social reform movement or movement in the pre independence period. Post independent period can be considered as phase 2 and phase 3 started since 1970s.<sup>3</sup>

In the post independence period India had to face numerous problems which shaped the nature of women movement. During that period social reformists introduced various constitutional provisions and legal provisions to protect women from any type of discrimination in the society. Post independent movement showed a different nature of women also. Some women movement are- Telengana Movement, Chipko Movement, Anti Arrack Movement, Gulabi Gang, Naked protest of Manipuri mothers, movement against Khap panchayats etc.

### **3.1. Telengana Movement:**

It was a peasant movement against the autocratic rule of Nizam and feudal oppression in the Telengana region of princely state of Hyderabad. It began in 1946 and continued till 1951. It was also against the Jagirdari system. Under this system diverse illegal taxes and forced labour were extracted from the poor peasants by the landlords. There were 'Deshmukhs', 'Deshpandes', and tax collector under Nizam who seize lots

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<sup>2</sup> Ibid

<sup>3</sup> Gupta, Sachin. Women in India. UPSC Important notes and Study Material. [www.studyiq.com](http://www.studyiq.com)

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of lands from the peasants. There were Vetti system also prevailed. Telengana movements became women movement when women came forward to fight against these types of systems. It was not only about peasants, also about the women's rights and dignity. Another system that prevailed there was keeping of peasants girls in the landlord's house as slaves and when landlord's daughters got married then they sent a peasant girl with the bride to serve the groom with sexual favors. Women suffered a lot with sexual exploitation, force labour, extreme poverty by the feudal to resist these types of problems. Communist party of India started a struggle against these systems and Nizam. They formed a women organization which published a women's journal 'Andhra Vanitha'. Through this movement they campaigned against unequal wages, wife beating, child marriage and stand for widow remarriage, right to breast feed to infant during work, food and lavatories. It was not that only lower caste, class women were oppressed but upper class women also suffered lot of struggle. So, reformist wanted to abolish purdah system.

Telengana movement had brought substantial gains for peasantry. Many people were able to retain land, forced labour had ended. In 1948 Nizam surrendered and Hyderabad became a part of India.

### 3.2. Chipko movement:

Chipko movement is considered as environment movement. It was a movement in Uttarakhand for protecting the nature or forest from the industrialist. It was led tribal rural women. In 1973 movement became very strong under the leadership of Sunderlal Bahuguna in various villages. The movement's slogan was to plant five 'F's- food, fodder, fuel, fiber and fertilizer to make communities self dependent to bear their basic needs.<sup>4</sup> The villages were very much attached to the nature and they believe that trees can breathe like human so trees should be respected. Women did their best with non-violent strength. Women had to face so many problems from their home, husbands but they bravely participated in the movement. Although they were illiterate, this movement cleared the consciousness of them and the love for the environment. One of the, Gaura Devi led 27 villages women to prevent the contractors and forest department personnel, when about 60 men entered in the Reni forest to cut about 2500 trees.<sup>5</sup> While the women blocked the narrow passage leading to the forest, the men used all sorts of threats but they never gave up. As a result of this movement government of India banned the cutting of trees in the Himalaya for 15 years.<sup>6</sup>

### 3.3. Anti-Arrack Movement:

It was a women's movement in Andhra Pradesh started in 1992. It was a movement against the sale of arrack. Women played a significant role in bringing about a ban on consumption and sale of alcohol. This movement was started in a small village Dubagunta in Nellore district. This movement gave women tremendous self confidence

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<sup>4</sup> Ibid.

<sup>5</sup>Roychowdhury, Adrija. 2019. International Women's Day 2019: Five mass movements spearheaded by women in India. [www.theindianexpress.com](http://www.theindianexpress.com)

<sup>6</sup> Paul, Kripesh Chandra, Paul, Nita, Konwar, Shubhrajeev. "Rise of Popular Movement". *Politics in India since Independence*. pp. 120-131. 2019.

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and they used this movement as platform to discuss private issues of domestic violence also. Under the banner of this movement they focused on issues of sexual violence against women within the family and outside. They campaigned against the system of dowry and demanded personal and property laws based on the norms of gender equality.

Anti-arrack movement had a diverse impact on the society. In Hyderabad Anveshi was set up as a platform for theoretical studies of women's issues and in Delhi the Centre for Women's Development Studies promoted research on gender studies and later launching a Journal for Gender Studies. Women studies also included into the university curriculum.<sup>7</sup>

The movement gradually entered into another phase. Panchayati Raj Bill was introduced and passed in 1993 through 73<sup>rd</sup> and 74<sup>th</sup> amendment of the constitution which instituted one third of the seats in the Panchayat to be reserved for women. The scheme for Development of Women and Children in Rural Areas (DWACRA) was introduced and another scheme called the MahilaKosh also started. These all are impact of Anti-arrack movement.<sup>8</sup>

#### 3.4. Initiatives of Gulabi Gang:

Gulabi Gang was a prudent group led by women and first established in 2006 in Uttar Pradesh. The main objective of this group was to start movement against the widespread domestic violence faced by women. This movement was started by Sampal Pal Devi, when she saw a man violently beating his wife. She was very simple woman and planned to stop this type of incident in the village and to help or protect the powerless from abuse. They also stand against child marriage and used the symbol of sisterhood and unity to fight against the malpractices of society. Wearing pink sari they not only talked about gender biased activities or violence but they also discussed or took actions against bribery, caste discrimination etc.

Most of the gang members were from dalit community. Therefore they could bring the caste discrimination in front of the society. Carrying lathis women stand with various wrong doings, injustice prevails in the society.

#### 3.5. Women movement in Manipur in 2004:

The year 2004 was very significant or memorable for Manipur and for India also. In that year some women from Manipur came to the street and started protest against Indian Army or security force. Excepting all types of stereotypes women of Manipur being naked led a movement which remained unique in the history. Manurama, a 32 year women from Manipur was picked up by the members of Assam Rifles on the basis of suspicion of being a member of people's liberation army under AFSPA. The very next day she was found raped and found three bullets in her vagina.

After some days of this incident some women came to the street to give justice to Manurama. They considered themselves as mothers of Manurama. They were fully naked and walked to the Assam Rifles Camp 'kangla fort' in Imphal with a board where

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<sup>7</sup> ibid

<sup>8</sup> ibid



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they wrote ‘we all are mothers of Manurama’, ‘Indian army raped us’. It was a very unique and effective movement in Indian history.<sup>9</sup>

#### 4. Findings:

Women movement had a diverse impact on the society. As a result of Chipko movement the union government issued a ban on cut down trees in the Himalayan region for fifteen years until the green cover restored and also government introduced the Forest Conservation Act, 1980 and also amended the Indian Forest Act, 1927.<sup>10</sup> Gulabi gang movement also had a big impact on the society as they were able to protect the powerless. They fight against rapist where in 2011 gang helped a 17 year old girl Sheelu Nishad has been gang raped. Gulabi gang organized two mass demonstrations to give justice to the girl. The movement now boasts of a network or support of 400000 women (till 2014).<sup>11</sup> Because of this movement Gulabi gang received Godfrey Phillips Bravery Award, The Kelvinator 11<sup>th</sup> GR8! Women Award, Ahilyabaiholkar Award etc.<sup>12</sup> As a result of Anti-arack movement the state of Kerala banned arack within the state and attempts to increase women’s role in local and national policies. National Policy for Women, 2001 was adopted by the government of India to empower women and development and also to eliminate all types of discriminations, crimes against women. It was a kind of achievement of women movement in India.

#### 5. Conclusion:

Women are considered as weak from the time immemorial. There were various organizations and social reformers that fought for the disoriented rights, status of women. And it is noteworthy that still women have to stay under veil. Before independence there were various social reformers who tried to reform the society and they brought the concept of rights, fragile nature of women to the forefront and tried to break the stereo type thinking of the society. It was noteworthy that women enable to gather some respect from the society in few areas but still society is hang on to prove that women are weak. But women participation or movement can strengthen the democratic system of a country that is why women liberation movement started demanding rights, status for women. Heavily influenced by western ideals women movement got a huge success in India.

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<sup>10</sup> Das, Snigdha. 2018. Embrace of an unforgettable conservation crusade lingers on. [www.downtoearth.org.in](http://www.downtoearth.org.in)

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## साहित्य, साहित्यकार और जनसाधारण

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सहायक प्राध्यापक

हिंदी विभाग

उदाली कॉलेज,

वामुनगाँव

लंका, होजाई, असम

आधुनिक काल का साहित्य किसके लिए और क्यों लिखा जा रहा है और वह कितना जनसाधारण के लिए लिखा जा रहा है ? यह प्रश्न हमारे सामने चुनौती बनकर खड़ा है। हलके तौर पर हम यह कह सकते हैं कि आदिकाल की रचनाएँ यदि वीरता एवं प्रशस्ति गान के लिए लिखा गया तो भक्तिकाल का साहित्य भक्ति-भजन के लिए, साथ ही रीतिकाल का साहित्य भी राजाओं को प्रसन्न करने के लिए श्रृंगार एवं दरबारी के लिए। उस समय तत्कालीन समाज या जनता किसी को ध्यान में नहीं रहा।

आधुनिक काल क्रांतिकारी परिवर्तन का युग है। राजनीतिक दृष्टि से अंग्रेजों के प्रति भीषण युद्ध, सामाजिक दृष्टि से वर्ण भेद का समापन, आर्थिक दृष्टि से समता का अधिकार, धार्मिक दृष्टि से मानव धर्म की स्थापना, सांस्कृतिक दृष्टि से अनेक सांस्कृतियों की प्रधानता तथा साहित्यिक दृष्टि से जनसाधारण का साहित्य। यदि यह कहा जाता रहा है कि "साहित्य समाज का दर्पण है।" तो यह भी कहना अनुचित न होगा कि 'साहित्य जनसाधारण का दर्पण' है। समाज और जनसाधारण में अंतर स्पष्ट करना बहुत कठिन कार्य है। पारंपरिक अवधारणानुसार समाज बुद्धिजीवी, साक्षर तथा रीति-नीति का पालन करने वाला समुदाय है, तो जनसाधारण आम व्यक्ति, असाक्षर तथा यह भी कह सकते हैं कि इसमें बुद्धिजीवी भी हो सकते हैं और बुद्धिहीन भी। समाज में गलती एवं बुराई को स्थान नहीं मिलता, जनसाधारण सभी का बोझ होता हुआ, लड़खड़ाता हुआ, गिरता, ढहता संभलता हुआ आगे बढ़ता है। आचार्य रामचंद्र शुक्ल ने अपने हिंदी साहित्य का इतिहास में साहित्य को परिभाषित करते हुए जनता की चित्तवृत्तियों की बात की है। आजादी मिलने के पहले कवि तत्कालीन जनता को उतने रूप में जागरूक नहीं बना पाया जितना कि अवश्यकता थी। कारण तत्कालीन जनता क्षुधातुर, वासविहिन तथा वस्त्रविहिन हो चुके थे, जिसके कारण साहित्य उनके लिए किसी काम की नहीं थी। उनको समझाने के लिए एक मात्र रास्ता भोजन, कपड़ा तथा अवास ही हो सकता है। यह कोई साहित्यकार उन्हें नहीं दे सकता है। वे खुद उसे अपनी ही मेहनत-मजदुरी की आशा रखते हैं। आचार्य केसरी कुमार ने लिखा है –"करोड़ों भूखे लोग सिर्फ एक कविता माँगते हैं – शक्तिदायक भोजन। उन्हें यह कोई देगा नहीं। उन्हें इसे कमाना है। और इसे वे सिर्फ चोटी के पसीने से ही कमा सकते हैं।"

यह बात सत्य है कि भूखे व्यक्ति के लिए साहित्य क्या संसार का कोई वस्तु किसी मायने का नहीं है। उसके लिए मात्र भोजनही सब कुछ है। यह भी ध्यान में रखना होगा कि जनता की आड़ में लिखा जाने वाला साहित्य किसके लिए लिखा जाता है ? साहित्यकार जिसके लिए साहित्य की रचना करता है वह उसका पाठक नहीं बनते। तब हम यह क्यों नहीं कह सकते कि जिसके लिए कानून बनाया गया वह उस कानून के अधिकार से वंचित किया जा रहा है। यह कहाँ तक उचित है, इसका अंदाज आप स्वयं कर सकते हैं। जो भी हो, यहाँ साहित्यकार या कानून बनाने वाले का कोई दोष नहीं है, यहाँ तो उस साहित्य के भोग करने वाले समाज तथा कानून के संरक्षण में काम कर रहे समाज की बात है। पूँजीपति वर्ग, सेठ, राजनीतिज्ञ आदि के आक्रोशसे लिखा गया साहित्य हास्यास्पद बन जाता है। साहित्यकार समाज का एक विशिष्ट व्यक्ति होता है एवं पाठक मूलतः पूँजीपति, शासक, सेठ आदि होते हैं और साहित्य जनसाधारण का। जनसाधारण अपने लिए किसी प्रकार की सहायता पाठक वर्ग से नहीं ले सकता। साहित्यकार जनसाधारण के प्रति सहानुभूति प्रकट करता होगा, इसका अनुभव भी तत्कालीन जनसाधारण नहीं कर पाते हैं। आचार्य केसरी कुमार के अनुसार –"प्रेरक पाठक प्रेमचंद के



वास्तविक पाठक नहीं हुए। प्रेमचंद के वास्तविक पाठक बहुलांशतः वे थे, जिनके खिलाफ प्रेमचंद ने लिखा। यह लेखक का नियति है।<sup>171</sup> जिस प्रकार दलित साहित्य के बारे में लिखा गया है कि दलित साहित्य की रचना वही कर सकते हैं या उसका वही अधिकारी है जो दलित वर्ग का होता है, उसी प्रकार भूखे का साहित्य वही लिख सकता है, जो भूखा हो और ऐसा हुआ भी। नागार्जुन के संबंध में 'एक काल पुरुष का आदेह होना' नामक लेख में प्रकाश भानु ने लिखा है – "सही माने में वह जनता के कवि हैं, जिन्होंने जीवन भर जनता के दुःखों को अपना बना कर लिखा और उसके लिए प्राणपण से लड़े। और इस तरह जीवन भर के कठिन तप और अटूट जीवन से उन्होंने सावित किया कि आम जनता के छोटे-बड़े दुखों और वचपन संघर्षों से जुड़ा कोई जन कवि ही इस युग का सच्चा महाकवि हो सकता है।"<sup>172</sup> हर काल में जनसाधारण के लिए साहित्य लिखा गया, लेकिन इसे दूसरे रूप में देखा गया। कालांतर में साहित्य का भी भेद कर दिया गया – साहित्य एवं परिनिष्ठित साहित्य। जनसाधारण द्वारा लिखित साहित्य लोक साहित्य के रूप में जाना-जाने लगा। इस साहित्य के रचनाकार कोई एक विशिष्ट व्यक्ति नहीं बल्कि उस साहित्य का लेखक जन समाज होता है। इसमें हर व्यक्ति का अधिकार है कि वह उसमें कुछ जोड़े, कुछ घटाए। इस प्रकार के साहित्य में लोरिकायन, सोरठा, विजयमाल, भरथरी आदि हैं, जो हर समय बुद्धिजीवियों से चुसे जा रहे हैं तथा परिनिष्ठित साहित्य शहरी एवं बुद्धिजीवियों का है। यहाँ यह स्पष्ट होना चाहिए कि साहित्य का रसास्वदन हर व्यक्ति करते हैं चाहे वे गरीब हो, धनी हो या गाँव का हो या शहर के। लेकिन बात यह है कि गाँव के अधिकांश लोग अशिक्षित हैं, वे उसे पढ़ कर रसास्वादन नहीं कर पाते तथा आज के समय यह है कि उन्हें पढ़ रक कोई नहीं सुनाएगा। नाटक साहित्य की सर्वोत्कृष्ट विधा है। उसे भी आज के टेक्नोलॉजी (Technology) या फिल्मी दुनिया में कोई मंचन नहीं करके दिखा रहा है। जिसके फलस्वरूप जनसाधारण उसका आनंद ले सके। लोक गीत जनसाधारण में गा-गा कर पढ़ा जाता है जो भूखे व्यक्ति भी उसे न चाहते हुए एक क्षण के लिए सही उधर मुड़ जाता है। यदि कोई हेलिकॉप्टर (Helicopter) में बैठ कर उपदेश देता हो तथा कोई घर-घर जाकर अपनी तथा अपनी समाज की भलाई की बात कहता हो, उसमें जो फर्क है वही फर्क साहित्य या जन साहित्य में है। चाहे पूँजीपति, शासक एवं बुद्धिजीवी के लिए यह साहित्य उतनी मायने नहीं रखती हो पर वह उसकी आधारशिला है, उसे ध्यान से देखना चाहिए।

विश्व के सभी लोगों के लिए तीर्थस्थल एक ही समान पवित्र स्थल होता है और जो चाहे जब चाहे वहाँ जा सकते हैं, उसका आनंद उठा सकते हैं। ठीक उसी प्रकार वह साहित्य संगम भी उतना ही पवित्र एवं आनंददायक होता है। हिंदी साहित्य के इतिहास में यदि इस प्रकार के स्थल को ढूँढें तो आदिकाल के सिद्ध साहित्य, चारण साहित्य में देख सकते हैं। सिद्ध साहित्यकारों ने जनसाधारण के कवि हुए तथा चारण कवियों ने सामंती वीरगाथा के। मैथिली कोकिल विद्यापति इस प्रकार के प्रथम कवि हैं। जनसाधारण साहित्य एवं परिनिष्ठित साहित्य दोनों प्रकार के साहित्य को इन्होंने बड़े ही कौशलपूर्ण ढंग से एक ही साथ अभिव्यक्त कर पाने में सक्षम हो पाये हैं। इनमें वह विलक्षण प्रतिभा शक्ति थी जो अन्यत्र दूर्लभ है। इनकी एक विलक्षण विशेषता यह भी है कि वे राजकवि एवं जनकवि एक ही साथ हुए। इसके बाद भी बहुत कवि ऐसे हुए जो जनमानस वाली भद्रलोक धारा का संगम किया पर इनमें कुछ अलग तरह की परिस्थितियाँ रही। भक्तिकाल में इस प्रकार के कवि प्रायः देखने को मिल जायेंगे पर इनमें और विद्यापति में तात्त्विक फर्क यह है कि भक्तिकाल का कोई कवि दरवारी नहीं था। भक्तिकाल में जनसाहित्य उत्तर और दक्षिण दोनों ओर लिखा जा रहा था, दोनों भिन्न होते हुए भी कही न कही एक बिन्दु पर मिलते थे। दक्षिण के अलवार भक्त तथा उत्तर के निर्गुण संत प्रायः दोनों दिशाओं के कवि निम्न वर्ग के हुआ करते थे। जिन्होंने जनसाधारण को प्रमुखता दिया। संत कवियों के काव्य की रचना का उद्देश्य जनसाधारण ही था। इस तथ्य को डॉ नगेन्द्र द्वारा संपादित 'हिंदी साहित्य का इतिहास' में लिखा है – "संत कवियों का लक्ष्य काव्यरचना नहीं था, उनकी रचनओं में जन-जन के हित और उनके उद्बोधन की भावना सन्निहित है।"<sup>173</sup> भक्तिकाल में कबीरदास नामक एक विलक्षण प्रतिभा संपन्न व्यक्तित्व का अवतार हुआ। ये जन्म से ही दुःखी रहे। ये पढ़े-लिखे नहीं थे पर बड़े-बड़े विद्वान इनकी सधारण सी बात सुनकर होशो-हवास खो देते हैं।





कबीरदास की वाणी जनसाधारण से लेकर हर एक समाज, हर एक वर्ग, हर जाति तथा हर अंधविश्वास या यह कहे कि संसार की हर विषमता तक अनायास घूम आयी। इन्होंने जनसाधारण वाली लोकधारा एवं भद्रलोक वाली परिनिष्ठित साहित्य सब को एक ही लाठी से हँका। इन्होंने संस्कृत भाषा को 'कुप जल' तथा जनभाषा को बहता नीर कहा। कबीर ने जनसाधारण के जीवन दर्शन को बहुत ही सहज ढंग से प्रस्तुत किया है। दोनों धाराओं का संगम गोस्वामी तुलसीदास कृत 'रामचरितमानस' में हुआ है। इसमें परंपरागत जनसाधारण का जीवन दर्शन स्पष्ट हुआ है। मानस की शैली और शिल्प के पीछे सिद्ध और योगियों से लेकर प्रेमगाथा लिखने वाले सूफियों की परंपरा विद्यमान है। इस महाकाव्य को बड़े-बड़े विद्वान भी तथा गाँव के गाँवार भी एक साथ रसास्वादन कर लेते हैं। यह ग्रंथ एक ही साथ एक तरफ धर्म ग्रंथ है तो दूसरी तरफ साहित्य ग्रंथ भी।

रीतिकाल के प्रायः सभी कवि राजदरवारी थे। वे लोग राजा की प्रशंसा कर के धनोपार्जन किया करते थे, जिसके कारण वे अपने या जनसाधारण के लिए एक क्षण का भी समय नहीं निकाल पाते थे। वे लोग श्रृंगार एवं ओजपूर्ण काव्य की रचना करते थे। कुछ कवि स्वच्छंद काव्य रचना तो की परंतु वे लोग भी जन समाज के साथ नहीं जुड़ पाये। रीतिकाल के सभी कवि रसिक समाजी हो गये, फिर भी अनजाने में कुछ ऐसे दोहालिख डाले, जिनका फायदा चतुर किसान एवं गाँव के बुद्धिजीवी वर्ग ने थोड़ा-बहुत लाभ उठाया। वे दोहे थे मौसम संबंधी जानकारियाँ, जिसके कारण लोगों के मन में वे दोहे बैठ जाते थे।

आधुनिक काल के आरंभ में जनसाधारण से साहित्य को जोड़ने का बहुत बड़ा काम भारतेंदु मंडल एवं द्विवेदी मंडल ने किया। यह समय भारतवर्ष के लिए जन क्रांति का समय था। दो-दो विश्व युद्ध इसी समय हुए। जनता डरी हुई थी। यह समय किसी व्यक्ति को विशेषत्व दिखाने का नहीं था, बल्कि सामान्य या साधारण रूप में होकर जनता को एक सूत्र में बाँधने का समय था। भारतेंदु हरिश्चंद्र ने 'जातीय संगीत' नामक लेख में लिखा है – "भारतवर्ष की उन्नति के जो अनेक उपाय महात्मागण आज-कल सोच रहे हैं, उनमें एक और उपाय भी होने की आवश्यकता है। इस विषय के बड़े-बड़े लेख और काव्य प्रकाशित होते हैं, किन्तु वे जनसाधारण को दृष्टिगोचर नहीं होते। इसके हेतु मैंने यह सोचा कि जातीय संगीत की छोटी-छोटी पुस्तकें बनें और वे सारे देश गाँव-गाँव में साधारण लोगों में प्रचार की जायें।<sup>1v</sup> यहाँ साहित्य के माध्यम से जनसाधारण को कर्म क्षेत्र में लाने का प्रमुख उद्देश्य है। इस प्रकार आधुनिक काल के प्रारंभ में ही हम देख सकते हैं कि किस प्रकार भारतेंदु मंडल तथा द्विवेदी मंडल के सहित्यकारों ने साहित्य को जनसाधारण के द्वार तक लाया, यह विद्वानों से परे नहीं है। यहाँ तक की भाषा का भी बहुत बड़ा उलट-फेर देखने को मिलता है। आदिकाल से आ रही ब्रज, मैथिली तथा अवधी भाषा रीतिकाल तक आते-आते साहित्यिक भाषा की मान्यता पा चुकी थी, परंतु उन्हें भी धारासाहित होना पड़ा। आधुनिक काल में जनभाषा खड़ी बोली का आधार स्तंभ ऐसा खड़ा हुआ। आगे चल कर हिंदी साहित्य के इतिहास में एक अमुल परिवर्तन दिखाई दिया। खड़ी बोली ने जन सामान्य की छटपटाहट को मुखरीत किया। यहाँ तक की बँधी-बँधाई परिपाटी को अतॉक्रमण करते हुए, मुक्त कंठ से अभिव्यक्ति देने की साहस किया गया। छंदों को तड़ा गया। धर्म की आलोचला हुई। राजसत्ता या शासन व्यवस्था पर टिप्पणी की गयी। प्रशासन प्रणाली तथा पुलिस की घोर निंदा। असल में यह हमारी जनता की चित्तवृत्तियों की परिवर्तन का तथा मानव समाज की विकास का परिणाम है। आचार्य हजारी प्रसाद द्विवेदी ने साहित्यकारों का दायित्व नामक लेख में लिखा है – "हिंदी साहित्य लोक साहित्य था। आज भारतीय जन समाज की जो अवस्था है, वह सदा से नहीं रही है। नये-नये जनसमूह इस देश में आते थे और पुराने विचारों को बदलते रहते हैं। लोक-कथाओं, लोकोक्तियों और जनता के प्रचलित आचार-विचारों से ऐसी अनेक महत्वपूर्ण बातों का पता लग सकता है, जो पुस्तकों से प्राप्त नहीं हो सकती। साहित्य का इतिहास पुस्तकों, उनके लेखकों और कवियों के उद्भव और विकास की कहानी नहीं है। वह वस्तुतः अनादिकाल-प्रवाह में निरंतर प्रवाहमान जीवन मानव समाज की ही विकास कथा है।<sup>1vi</sup> आधुनिक युग में अनेक प्रकार के समाचार पत्रों का भी प्रकाशन किया गया, जिनका नाम भी जनसाधारण से जुड़ा हुआ है। जिनमें प्रमुख हैं- जनता, जनयुग, जन, जनवाणी आदि। इससे जनसाधारण को साहित्य से जोड़ने का असफल प्रयास किया गया। युग की परिस्थितियाँ और समाज की मानसिकता को मध्य नजर रखते हुए हम यह कह सकते हैं कि स्वतंत्रता आंदोलन के कारण एवं इसी बिच दो-दो विश्वयुद्ध होने के फलस्वरूप लाखों-लाखों लोगों



की मौत हुई, हजारों-लाखों लोग बेघर होकर दर-दर की ठोकें खाने लगे इस समय इन व्यक्तियों के लिए साहित्य कोई मायने नहीं रखता। इसी बीच भारत का विभाजन हुआ, जिसके कारण लोगों में अंतर्विरोध उत्पन्न हुए। आज के परिदृश्य में हम इसे देखें तो पूँजीपति तथा पूँजीहीन दो भागों में समाज बँटा हुआ है। इन्हीं दोनों के बीच से मध्यवर्ग समाज का विकास हुआ, जिनकी अभिव्यक्ति आज के साहित्य में प्रमुख रूप से देखा जा सकता है। गरीब उसे माना जाता है जो मजदूर या किसान हैं। इन्हें बुद्धिहीन भी माना जाता है। यह कटू सत्य है कि बड़े-बड़े धार्मिक, बड़े-बड़े राजनीतिज्ञ, बड़े-बड़े व्यवसायिक, बड़े-बड़े साहित्यकार, बड़े-बड़े सामाजिक संगठन एवं बड़े-बड़े खिलाड़ी सब का आधार स्तंभ यदि कोई है तो एक मात्र किसान ही। प्राचीन काल से जिसे हम शुद्र के नाम से जानते हैं, आज आधुनिक भारत में किसान को उस वर्ग का उपाधि प्राप्त है। माल उगाही के लिए तो केन्द्रीय सरकार ने अनेक सुविधाएँ मुहैयाँ कराई है, पर राज्य सरकार तक वह सुविधा आते-आते कुछ को तो दीमक चाट जाते हैं और कुछ का फायदा यदि किसान ने उठा भी लिया तो उसकी फसलों का उचित दाम नहीं मिलता। इस समय अपना दुख किससे कहे, वे मजबूरीबस वहीं रह जाते हैं, जहाँ तक शूद्रों की सुविधा थी। इस हालत में किसान अपने बाल-बच्चों को किस प्रकार बौद्धिक वर्ग तक पहुँचा सकता है? जब अभिलाषित कुछ नहीं कर पाता है, तब फिर जिस प्रकार एक मोची अपने लड़का को जूते का काम ही सिखलाता था, उसी प्रकार किसान लोग अपने लड़कों को किसानों का ही काम सौंप देता है। अपवाद की बात यहाँ नहीं होना चाहिए क्योंकि अकेला चन्ना भाड़ नहीं फोड़ सकता, तब यदि एक-दो लोग थोड़ा सा अपना मार्ग ही बदल लिया तो क्या हुआ?

आज का लेखक भी अजीब दुविधा में फँसा हुआ है। वह इस जनसाधारण की तरह अपने तेज एवं मूल्य रूचि के कारण नहीं रह सकता और वैज्ञानिक युग के अनेक महारथियों के साथ भी। इनकी एक अपनी अलग दुनिया बनती जा रही है। परंपरा से कही गयी बात साहित्य, समाज तथा साहित्यकार में अन्योन्याश्रित संबंध है, का उल्लंघन करते हुए आज का साहित्य, समाज तथा साहित्यकार तीनों तीनों दिशाओं में भ्रमण कर रहे हैं। इनके बीच की खाई दूर करने के लिए आज एक बड़े व्यक्तित्व की कमी महसूस की जा रही है। जो भी हो एकमात्र अपने ही के लिए भावों का प्रकाशन भी एक ऐसी ही निरर्थक बात है। रचना स्वयं रचनाकार के लिए नहीं है, यह मानना पड़ेगा और यह मानकर ही चलना पड़ेगा।

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## A PROSPECTIVE STUDY TO EVALUATE THE CORRELATION BETWEEN COGNITION AND PHYSICAL PERFORMANCE IN GERIATRICS

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### ABSTRACT

**Objective** the purpose of this study is to examine the relation between physical performance and cognition in geriatric population.

**Methods** 70 subjects who fulfilled the inclusion and exclusion criteria were selected for the study. The subject's cognition level were assessed by MINI MENTAL STATE EXAMINATION. It includes components like Orientation, Registration, Attention and Calculation, Recall and Language. The timed up and go test (TUG) was another test used. The physical performance score was derived from 3 objective tests of physical function: 4 meter walking speed, repeated chair rises and standing balance in progressively more challenging positions.

**Results** Cognition of all the subjects were evaluated by MMSE and physical performance was assessed by PPB and TUG. There is a high correlation found between cognition and physical performance.

**Conclusion:-**Cognition declines leads to decrease in the physical performance. Orientation component of MMSE is highly significant in affecting the physical performance. physical performance is affected by memory, language, attention and calculative skills.

### INTRODUCTION

Condition which is characterized by the decrements in the neurotransmitters release and gradual loss of physiological function leads to natural phenomenal process known as "Aging". As per our knowledge neurotransmitters plays a key role in the process of cognition and decrease of them due to natural process causes cognitive decrement in aging<sup>1</sup>. Aging leads to decrement of various physiological capacities such as aerobic capacity, muscle strength, flexibility and neuro-muscular coordination which leads to impaired physical performance<sup>2</sup>

Age related changes may or may not be uniform across cognitive domains. Some abilities like general knowledge and vocabulary can remain stable until very late in life<sup>3</sup>. In contrast to those abilities like attention, memory execution start to decline in middle adulthood and progress until death<sup>(4, 5)</sup>.

Even in the absence of pathology, as a normal consequence of aging process cognitive functioning begins to decline. However some cases report disproportionately high cognitive decline. If a person experiences cognitive decline due to normal aging process but not meet dementia then it is characterized as Mild cognitive impairment (MCI). Individuals with MCI also have an increased risk towards developing dementia.



The term which is used to describe changes associated with aging such as learning, memory and reasoning is described as cognitive aging<sup>6</sup>.

changes such as decrease in fluency and naming, problem solving abilities, concentration, analysis of complex perception<sup>7</sup> are considered as normal cognitive changes. Cognitive speed declines more rapidly where as memory remains relatively intact until late stages in older adults<sup>8</sup>. cognitive impairment leads to limitation of ADLs in elderly people. Question arises whether cognitive disability can predicts the onset of new ADL limitations<sup>9</sup>.

Physical activity in elderly helps to reduce the occurrence of risk factors for cardiovascular diseases which further improves cerebral blood flow and reduces the occurrence of stroke, dementia and cognitive decline. In addition to those, physical activity also helps in stimulating the neurogenesis in the hippocampus, which provides the cognitive reserves against decline<sup>10</sup>.

Various Researches conducted on elderly proved that regular exercise program improves the health in elderly by preventing functional decline<sup>11</sup>. regular physical activity may also contributes in developing healthy aging process<sup>12</sup>. Functional dependence in elderly leads to increased health related problems and leads to poor quality of life<sup>13</sup>. Interest in the determinants of successful aging in healthier adults has led to perform an investigation of the heterogeneity in physical functioning of adult people<sup>14</sup>.

Mini mental state examination (MMSE) was used to assess cognitive function which includes questions related to place, registration, attention & calculation, recall, language and visual construction. The maximum score is 30. A higher score indicates better cognitive performance<sup>15</sup>.

The timed up and go test (TUG) was another test used. The procedure for the TUG required documenting the time in seconds that subjects required to "rise from a standard arm chair, walk to a line on the floor 3m away, turn, return and sit down again<sup>16</sup>. The task requires no special equipment or training<sup>17</sup>.

The physical performance score was derived from 3 objective tests of physical function: 4 meter walking speed, repeated chair rises and standing balance in progressively more challenging positions. For each of these 3 physical performance tests participants received a score from 0 to 4. With a value of 0 indicating the poor performance and 4 indicates highest level of performance<sup>18</sup>.

**Need for the study** : With the increasing number of older population, there is a need to improve the quality of life in old age, Which requires to identify adults at earlier point in cognitive impairment such that therapeutic interventions can be given to them at a right stage<sup>19</sup>. So, identifying the cognitive functioning and comparing them at the earliest helps to design the proper intervention protocol and to prevent the functional impairment<sup>20</sup>. **Aim of this study** is to examine the relation between physical performance and cognition in geriatric population.

#### **Methodology:-**

70 subjects who fulfilled the inclusion and exclusion criteria were selected for the study. The details and purpose of the study were explained to all patients for maximum cooperation and written consent was taken from them.

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**Inclusion Criteria** :-Individuals with age of 60 and more were included. Able to perform timed up and go test, Informed consent.

**Exclusion criteria:** History of stroke and other relevant neurological conditions, History of musculoskeletal disorders, Elderly people with visual, speech and hearing disorders.

**Outcome measures:** Mini mental state examination, Timed up and go test, physical performance battery

### **Measurement Procedure**

70 Healthy elderly subjects were taken for the study and initial assessment were carried out by using the evaluation tool to find out any pathology affecting nervous system, cardiovascular system, and musculoskeletal disorders. After fulfilling all the inclusion and exclusion criteria subjects were selected for the study.

The subject's cognition level was assessed by **Mini Mental State Examination (MMSE)**. It includes components like Orientation, Registration, Attention and Calculation, Recall and Language. For each correct answer 1 mark and for wrong answer 0 marks were given. The maximum score in MMSE is 30. Higher score shows good cognition of the individual. The maximum score for MMSE is 23, score of 23 or lower indicates cognitive impairment and a score above 23 is indicates cognition intact. Time required to complete the test was of 10- 15 mins.

The physical performance of the subjects were assessed by **Physical Performance Battery (PPB)**. It includes standing score, Measured walks and Chair stands scores. The total score of all the three components were taken which ranges from 0 -12. For the standing balance test, subjects were asked to stand in 3 progressively more difficult position for 10 seconds each: feet in side by side, semi tandem and tandem stance. For measuring walks test subject were asked to walk a 3 meter distance twice and the shortest time out of these 2 walks were taken for the score .grading will be given according to the time taken and appropriate scoring was given. For the chair stands test, subjects were asked to rise 5 times from a seated position as quickly as possible with their hands folded across the chest and performance was expressed as total time to complete the test. Grading was given according to the time takensame like measured walk test and appropriate scoring was given.

Then the subjects were asked to perform **TIMED UP AND GO TEST**. The subject were asked to get up from the chair and walk a distance of 3 meters , turn around and then walk back and sit on the chair again . The total time taken to complete the task was noted down in seconds.

### **RESULTS**

Cognition of all the subjects were evaluated by MMSE and physical performance was assessed by PPB and TUG. statistical tool pearson coefficient was used to check the relationship between the physical performance and cognition. The multiple regression method was used to study the influence of orientation, attention, memory, and language and visuospatial skills on physical performance.



Table Showing descriptive statistics of the subjects.

	N	Minimum	Maximum	Mean	Std. Deviation
AGE	70	60.00	85.00	68.2286	5.83883
MMSE	70	15.00	30.00	24.3000	3.04245
PPB	70	3.00	11.00	7.9429	1.56858
TUG	70	9.56	21.56	14.1734	2.77727

Table showing the mean value, standard deviation values of age, MMSE, PPB, TUG. The mean score for MMSE is 24.3000 and S.D is 3.04245. Mean value for PPB is 7.9429 with S.D of 1.56858 and the mean value for TUG is 7.9429 and S.D of 2.77727.

Table Showing the Mean and Standard Deviation of the Subcomponents of MMSE in the subjects.

	N	Minimum	Maximum	Mean	Std. Deviation
orientation	70	3.00	10.00	8.8286	1.51295
memory	70	1.00	6.00	4.4286	1.19869
attention	70	.00	5.00	3.2429	1.29027
language	70	6.00	9.00	7.6143	.96748

Table showing Mean, S.D for subcomponent of MMSE. The mean for orientation is 8.8286 and S.D is 1.51295. The mean for memory is 4.4286 and S.D is 1.19869. Similarly the mean for attention and calculation subcomponent is 3.2429 with a S.D of 1.29027. The mean and S.D for language and visuospatial skills is 7.6143 and .96748 respectively.

Table Showing Pearson Correlation between MMSE & TUG in the subjects

	MEAN	S.D.	r value	P value
MMSE SCORE	24.3000	3.04245	-.731(**)	.000
TUG SCORE	14.1734	2.77727		



Table showing Pearson correlation between MMSE Score and TUG Score with r value and P value (r = -.731 & P = .000) shows that MMSE Score and TUG Score are moderately correlated.

**Table Showing Pearson Correlation between MMSE and PPB in the subjects**

	MEAN	S.D.	r value	P value
MMSE SCORE	24.3000	3.04245	.711 (**)	.000
PPB SCORE	7.9429	1.56858		

Table showing Pearson correlation between MMSE Score and PPB Score with r value and P value (r = .711 & P = .000) shows that MMSE Score and PPB Score are moderately correlated.

**Table Showing Pearson Correlation between PPB and TUG in the subjects**

	MEAN	S.D.	r value	P value
PPB SCORE	7.9429	1.56858	-.817(**)	.000
TUG SCORE	14.1734	2.77727		

Tables how in gpearson correlation between TUG Score and PPB Score with r value and P value (r = -.817 & P = .000) shows that TUG Score and PPB Score are highly significantly correlated.

**Table showing Multiple Regression model with PPB as dependent variable Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.033	1.292		-.799	.427
Orientation(ori)	.430	.095	.415	4.547	.000
Memory(mem)	.240	.118	.184	2.038	.046
Attention(att)	.340	.111	.280	3.057	.003
Language(lang)	.396	.149	.244	2.663	.010

A Dependent Variable: PPB

Table showing multiple regression models of MMSE subcomponents with PPB as dependent variable. This proves that orientation is highly significant in affecting physical performance whereas attention, language & visuospatial skills and memory are significantly affecting physical performance.

$$Y = (-1.033) + .430(ori) + .240(mem) + .340(att) + .396(lang)$$

**Table showing Multiple regression model with TUG as dependent variable**

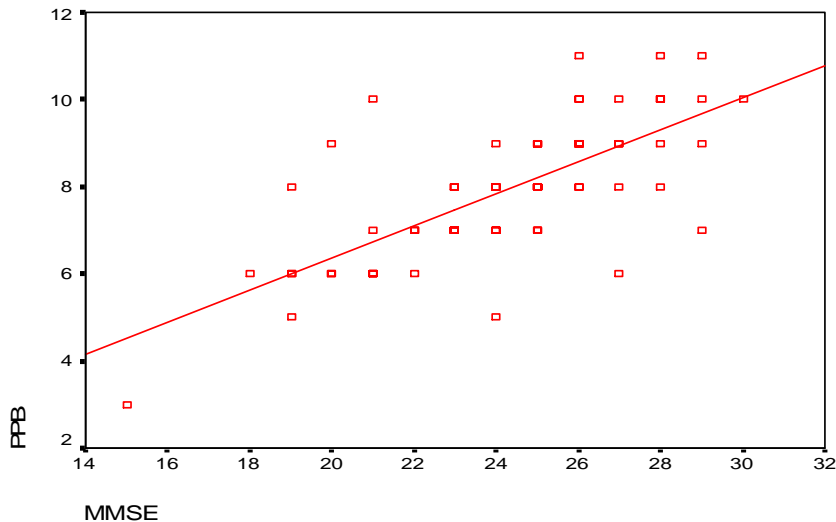
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	30.604	2.133		14.350	.000
Orientation(ori)	-.990	.156	-.539	-6.345	.000
Memory(mem)	-.509	.195	-.220	-2.615	.011
Attention(att)	-.443	.184	-.206	-2.413	.019
Language(lang)	-.526	.245	-.183	-2.141	.036

A Dependent Variable: TUG

Table showing multiple regression models of MMSE subcomponents with TUG as dependent variable. This proves that orientation is highly significant in affecting physical performance whereas memory, attention and language & visuospatial skills are significantly affecting physical performance.

$$Y = 30.604 + (-.990) (ori) + (-.509) (mem) + (-.443) (att) + (-.526) (lang)$$

**Graph Showing the Correlation of MMSE and PPB scores of the subjects**

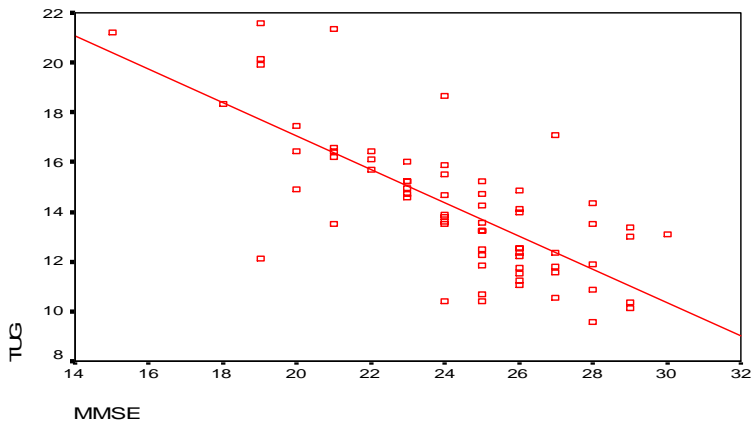






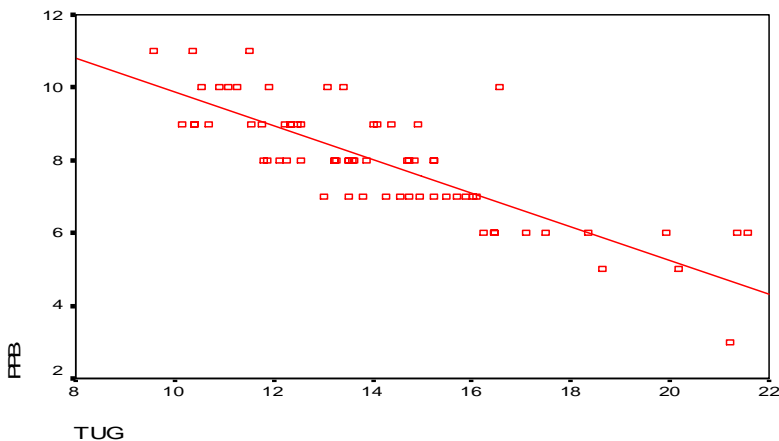
Graph showing the positive correlation between the cognition and physical performance through MMSE Scores and PPB Scores in subjects respectively. It denotes that cognition is closely related to physical performance.

**Graph Showing the Correlation of MMSE and TUG scores of the subjects**



Graph showing the negative correlation between the cognition and physical performance through MMSE Scores and TUG Scores in subjects respectively. It denotes that cognition is closely related to physical performance.

**.Graph Showing the Correlation of PPB and TUG scores of the subjects**



Graph showing the negative correlation between the TUG Scores and PPB Scores in subjects. It denotes that as physical performance scores were reduced subjects took more time to complete TUG t



## DISCUSSION

Changes in the central nervous system with aging process leads to cognitive decline. So it is essential to find out the factors causing cognitive decline with the aim to develop appropriate therapeutic interventions which improves quality of life in elderly.

This study was done on 70 healthy subjects with a mean age of 68.22 in which 34 were males and 36 were female subjects. Cognitive levels of all the subjects were evaluated by MMSE and the physical performance was assessed by PPB & TUG. The study was done with the aim to find out the correlation between physical performance and cognition.

Pearson Correlation Coefficient was used as a statistical tool to find out the relation between cognition and physical performance in this study.

The results of the present study showed that cognition and physical performance are closely related with each other. We found a positive correlation between MMSE and PPB and MMSE was negatively correlated with TUG Scores in all the subjects. Mean value of MMSE was 24.3000 and of physical performance with PPB 7.9429 and TUG were 14.1734.

Our findings were similar to the study conducted by **Larson and Wang et al (2006)** stated that physical activity for 3 or more times a week reduced risk of dementia when compared with those who exercised less than 3 times per week<sup>17</sup>.

Several mechanisms explained the relationship between physical activity and cognitive function. Physical activity helps in maintaining brain's vascular health by improving lipoprotein profiles, lowering blood pressure, promoting endothelial nitric oxide production, and ensuring adequate cerebral perfusion. Similarly, emerging evidence of a relation between amyloid  $\beta$  and insulin (amyloid  $\beta$  plaques which are responsible for cause of Alzheimer disease) suggest that aerobic activity acting on insulin resistance and glucose intolerance may be another mechanism by which physical activity could prevent cognitive decline. through promoting the expansion of neural fibers, synapses physical activity directly affects the brain<sup>21</sup>.

**Rogers RL et al (1990)** conducted a study on active retirees who continued to work after retirement also and inactive retirees. study was concluded by stating that Active retirees and those who continued to work scored better compared to inactive retirees on cognitive testing after follow-up up-to 4<sup>th</sup> year<sup>22</sup>

Further analysis of the results showed that out of four subcomponents of the MMSE orientation component is highly significant in affecting the physical performance. Attention & calculation, memory and language & visuospatial skills component were significantly affecting the physical performance of the subject.

The practical implication of this study is to identify individuals who are at risk of cognitive decline at the earliest so that appropriate intervention programme can be designed to reduce or stop the cognitive decline and improve the quality of life in older population. The limitations of the study are low sample size and the study design. The prospective study design would have yielded better clinical findings.



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**CONCLUSION** :There is a high correlation found between cognition and physical performance. As the cognition declines leads to decrease in the physical performance .Orientation component of MMSE is highly significant in affecting the physical performance.physical performance is affected by memory, language, attention and calculative skills.

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## THE ELEMENT OF BETRAYAL IN THE NOVELS OF CHETAN BHAGAT

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### **Abstract:**

It is believed that marriages are made in heaven. Added a fact to this belief is that marriages are broken on earth. When two partners find it difficult to live together, this heaven made marriage starts getting broken. In early ages, marriage was seen as a sacred bonding. It was more like a meeting of two souls rather than two bodies. People used to believe all the rituals and used to save the married life although if they had any difficulty. As a result, the rate of divorce was lower compared to now. Time is changed as human race has now entered to the Twenty-First century. The people have accepted the event called divorce very lightly. They find it comfortable to live individually rather than being in a forced relationship. There are certain elements which can be responsible for the breach of any good relationship which lead to betrayal.

### **Key Words:**

Betrayal, Marriages, Society, Chetan Bhagat

### **Introduction:**

When one of the partners finds someone else in life apart from his or her own partner, the betrayal takes place. This could be the apparent reason. However, there are several unseen reasons which unknowingly and unwillingly leads the one to infidelity. With the idea of independence and equality in this age, the marriages or relations have become more delicate. They should be handled with care. If a woman finds a man who is more generous to the idea of her being a working woman and an independent, then she might be disloyal to her man being in affair with this generous man. Likewise, if a man finds a woman who takes great care of him, who understands him better, then there are chances that the man would have an extra marital affair with this understanding and caring woman. An attempt has been made in this article to find out various reasons for betrayal. This research paper shows how the reasons of betrayal are applicable to the relationships of the characters from two of the novels of Chetan Bhagat.

### **Reasons for Betrayal:**

Sometimes, the couples also feel that they are not getting sufficient and qualitative time from their partners. Being in a technical era, people have a lot of burden at their workplace. And as a result, they have to work more than the scheduled timings. There are also such couples who work on different shifts. A husband would have a night shift, while a wife would have a day shift. Therefore, they are supposed to meet only on



weekends. At this point, they spend more time with their respective colleagues than the time they spend with each other. Gradually, they find uncomfortable with their own partners if they fail to understand them.

According to the latest survey by Gleeden, India's first extra marital dating application made on 26<sup>th</sup> February 2020, about 55% of married couples have been unfaithful to their partners of which 56% are women. In India, marriage is a social thing and not a personal one. As a result, it is more like a social responsibility for people to get married. They enter the marriage institution under family pressure and later realize the mistake they made. At this time, if they find someone else who is a better match than their partners, they come closer to them. Therefore, the relation which began with a simple friendship mostly end up in an affair. As it is said by Shirley Glass,

“The new infidelity is between people who unwittingly form deep, passionate connections before realizing that they have crossed the line from platonic friendship into romantic love. Infidelity is any emotional or sexual intimacy that violates trust”(quotes, 2000).

People cannot face changes in their life. They find themselves unable to deal with certain problems such as serious illness or death in family, loss of employment and so on. At this tender time, they feel more comfortable in a company of someone, who is not at all attached to their difficult circumstances they have been dealing with their partners and family already. During such tough time, they feel soothing if offered a new company. They try to forget all the problems any way being with a new partner and that leads to an infidelity. It could be a tentative affair. However, people tend to do it at least once in their life.

Physical dissatisfaction is one of the most common reasons for people to get involved into betrayal. Even in the Twenty-First century, there are so many societies who still do not allow the couples to meet them before their marriage. There are also the chances that the couples hardly know anything about each other unless they marry. After marriage, the couples are not satisfied with the look of their partners. Sometimes they also feel sexually dissatisfied. And so to fulfil their satisfaction, they get involved with someone else. It can also be noticed that sometimes the couples are emotionally disconnected. Now, being emotionally disconnected in a country like India where marriage is considered as a connection of two souls it might be shocking. However, this is also one of the reasons for betrayal. As couples do not share their views, they do not express their thoughts, they do not talk to each other, they gradually grow disconnected. And at this fragile moment, if they find someone whom they feel mentally and emotionally connected with, they involve in infidelity. It might begin with an emotional bond, but eventually leads to an extra marital affair.

Having no common interest can also be responsible for betrayal. If the couple does not find any common interest with each other, they will end up spending the least time together. As they are away from each other, they get opportunities to interact with others. With the passage of time, they build a bond with the ones who share their interests. This also can be seen as a result of following the old conventions of Indian marriages. Before marriage, the couples are hardly permitted to spend time with each other. It is the parents from both sides who arrange the marriage and so the couples are completely unaware of the habits, likes and dislikes, merits and demerits of their

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partners. Right after marriage they realize the vast difference between their nature, their thinking, their mindset and even their priorities. Consequently, they start finding a better partner for themselves. As this marriage was arranged by their parents, this time they want to find a match on their own.

Priorities also play a big role in infidelity. There are such families where the parents wish to become grandparents immediately after their son's marriage. If their son as well as daughter-in-law are ready for that, then there would be no major issue. However, if a daughter-in-law wants to be a career woman first, if she does not want a child in initial years, then her in-laws would desert her and encourage their son to find out another 'domestic' kind of woman. So it can be said that family problem can also lead to infidelity.

In this Twenty-First century, one more reason for infidelity is the advancement in career. In today's world women also have entered all the sectors of work which earlier were governed by men only. Both men and women are working equal to be successful. Sometimes, to survive in today's cut-throat competition there is a chance that either a man or a woman might get involved into infidelity with their bosses. Although they deeply love their partners getting a promotion is equally important to them. Therefore, to get a better position or higher authority they might cheat their partners by compromising with their seniors.

Literature projects the events which happen in society. Being the mirror of the society, it is more like a duty of literature to cater the society the true picture of the society itself. When it comes to be a social reformer, nothing is better than literature and novel in particular. Chetan Bhagat is the new face of today's world as he has given nine tremendous novels to the society. The Time Magazine has named this young author as one of the most influential people in the world. Moreover, four out of his nine novels have been converted into movies. He mostly writes about youth and also on women. Both male and female characters in the novels of Chetan Bhagat have been in betrayal. At certain point of time they feel that not their loved ones but only their best friends can understand them. They feel that it is very much required to move on and so to find another suitable partner to settle down in life. They find it just normal to have multiple relationships and multiple affairs. There are people who leave their partners just because they are not satisfactorily settled in their life. So it can be said that financial insecurity and also emotional insecurity could triggered to extra marital affair or betrayal. To quote Oscar Wilde,

“Those who are faithful know only the trivial side of love: it is the faithless who know love's tragedies” (quotes, infidelity, 2000).

*Revolution 2020* is a well-known novel by Chetan Bhagat which was published in a year 2011 by Rupa Publications. The novel is about three friends whose path differ from each other when they decide their career goals. One gets only this kind of impression if he/she reads the novel superficially. However, the novel actually is about the infidelity of the female protagonist to both the male protagonists.

Aarti Pradhan is already the best friend of Gopal as they are childhood friends. However, when Gopal proposes her for a committed relationship, Aarti firmly refuses his proposal that time. Later, when Gopal is not around Aarti suddenly falls in love with Raghav. As the story gets developed further, it can be seen that Raghav is unable to spend time with

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Aarti being busy with his news reporting job. As a result, Arti comes to closer to Gopal. She truly feels that only her best friend can understand her and none else. As she tells Gopal,

“I have no one to talk to when I am low” (Bhagat, 2011).

There are also circumstances where Raghav is at the verge of losing everything. As he tries to expose the scam of Varanasi’s MLA Mr Raman Lal Shukla, he has to lose his job at Dainik Bhaskar. He launches his own newsletter Revolution 2020, but he fails to get settled in life. He was even attacked at his office by the goons of Shukla. Contrary to this, by working with the same corrupt MLA, Gopal has become the richest man of Varanasi. He has opened a college on his own land making the cm his partner. As a result, Gopal is a principal of the college now and lives in a hotel kind of villa. What Aarti seeks is a time from Raghav which she gets from Gopal.

Moreover, she is aware that Gopal genuinely love her. She starts avoiding Raghav and decides to marry Gopal. However, Gopal realizes Raghav’s situation and feels like he has not got Aarti, but won her over Raghav. Therefore, he creates a fake scene where Aarti catches him with two call girls and finally ditches him. She reunites with Raghav and marries him. What Aarti does is a clear betrayal to Raghav. Just because he is busy and work-oriented, she leaves him and starts meeting Gopal. Moreover, she gets physical with Gopal although she belongs to Raghav. When she feels betrayed by Gopal, she returns to Raghav who has no idea of what Aarti has been doing. It can be noticed that Arti betrays Raghav initially as he remains busy. Later, Aarti betrays Gopal and so ends the circle where she has begun from.

On a detailed analysis of the character of Aarti, it can be noted that Aarti is someone who lives in dilemma. She has no idea where her life is going. Initially, she wanted to become an airhostess. However, her parents and even Raghav do not support her to leave to metro city for a training. As a result, she joins the local aviation course in Varanasi only. She then has no idea where she could start her career. Meanwhile, her father’s one of the contacts offers her a job in hospitality at Ramada hotel. And she just starts with that. The exact feature of being clueless is seen in her twisted relationship with both Raghav and Gopal. Earlier, she fails to understand Gopal’s love for her. However, when Raghav pays minimum attention to her, she starts loving Gopal. Ultimately, she ends up leaving Gopal and marrying Raghav. So, her confusion leads her to betray her best friend as well as her lover.

*One Indian Girl* is a recent novel by Chetan Bhagat which was published in the year 2016 by Rupa Publications. The novel reveals the life of Radhika Mehta, a girl from India who is highly intelligent and earns well at a multi-national bank in a foreign country. The novel revolves around her journey to find a true love and the difficulties she encounters to find a right man for her. When in Hong Kong, she works under her boss Mr Neel, who happens to be Indian origin person.

Radhika is pretty good at her work and so she gets increment too. As a result, Radhika becomes a quite well-known person at her work place and everyone appreciates her way of working. As her senior Mr Neel is married and a father of two kids, Radhika keeps a safe distance with him. However, Neel finds Radhika an efficient woman and he comes closer to him. He is impressed by Radhika’s negotiation skills and endless efforts to complete any task. Moreover, Neel thinks that Radhika has a better understanding.

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There is a big age gap between Neel and Radhika. Radhika is hardly around 25 years while Neel is 45 years old. It is clearly seen that Neel can be a father figure to a young Radhika. However, with the help of diet and exercise, Neel succeeds in hiding his age. He looks like in his early forties. But the fact is that he is almost the double age of Radhika.

Although he has a beautiful wife named Kusum at home, who has left her high salaried job to look after Neel and their kids, Neel does not find anything wrong to betray his wife. His wife has left her career just to take care of Neel and his kids and his house. Otherwise, she also used to be a part of a multi-national bank. Initially, Neel meets Radhika at their bank as well as at the business trips. Though Radhika finds it morally wrong, Neel insists her to get physical with him. Gradually, he starts lying to his wife and meets Radhika often even at her house.

Neel gives an explanation that his life with his wife has become quite monotonous. He hardly feels any love for her now. Therefore, he thinks that he should find a new partner for him just to make love. As he meets Radhika, he feels that love again and later, Neel becomes so possessive for Radhika that he even divorces his wife! He gives her a big amount as alimony and gets a joint custody for his kids. He takes his betrayal or his extra marital affair to the next level and determines to marry Radhika, a girl who is more like a daughter to him. As Neel justifies,

“You had a perfect family” Radhika said.

“If I had, why did we have what we had?” Neel said (Bhagat, One Indian Girl).

Neel is not the only man who is indulged in betrayal. In this novel, an artist kind of man named Debu also falls in love with Radhika. When Radhika has begun her career at world’s top bank in New York, she comes into contact with Debu who works at an advertising agency.

Initially, he appreciates Radhika being a highly successful and professional individual. However, when Radhika asks him to plan for their marriage, he simply finds her not a marriage type girl. He cannot see that potential in Radhika which according to him is the top criteria in a woman to get married. He puts a condition that Radhika should leave her job and take care of him and his house. He leaves Radhika and shifts to his old rented flat. He avoids Radhika so firmly that he does not answer any of her phone calls.

When Radhika decides to agree to his demand and tries to give him a surprise, she gets a big shock! When she visits Debu’s house with a proposal ring and flowers with her, she finds him with another woman. The true colour of Debu is seen here. He forgets Radhika so easily that he immediately finds another woman and gets close to her. He does not miss Radhika a single time and just within a month he catches another woman as he has never been serious for Radhika. He replaces an intellectual woman Radhika with an American girl who works as a waitress in a hotel. Radhika’s mental trauma of seeing such a scene is shown here:

“Then, in a second, I was gone. I turned around and ran out of his house. I don’t know if he came after me. I don’t think he did. Not that I looked back. I simply ran and ran, down the stairs and on the empty streets. I wanted to disappear into thin air...” (Bhagat, One Indian Girl, 2016).

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It is clearly seen that Debu used to enjoy with Radhika and when she forces him to get married, Debu leaves her and starts ignoring her. As he cannot leave without a woman, he finds one more girl and engages in betrayal.

**Conclusion:**

To conclude, it can be said that betrayal or unfaithfulness is like a curse and it is very common in today's world. It is not just about the married couples who betray their partners, but the world betrayal has a broader meaning than that. Any kind of infidelity done by a partner to his or her partner, is a betrayal. It could be between married couples or between partners who are under live in relationship. Chetan Bhagat has aptly caught the reflection of this ship in the society. In the novels discussed here, the partners have no shame to be disloyal to their loved ones. They find it alright to betray them and to go for an infidelity just for some time or for lifetime. They think that it is okay to be involved in betrayal under some circumstances. More than that they try to justify their betrayal by giving baseless and pointless reasons. It can also be noticed that the people involved in betrayal, have sheer ambiguous nature. This lack of clarity in their minds asks them to find someone new to get engaged with. They don't have a strong bond with their partners and as a result, they get easily attached with someone else.

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# മാധ്യമ സ്വാധീനം ‘ദൽഹി’യിൽ

ഡോ. ഐശ്വര്യമാധവൻ

1969-ലാണ് മുകുന്ദന്റെ ‘ദൽഹി’ പ്രസിദ്ധീകൃതമാകുന്നത്. ജീവിതത്തിന്റെ ഭാഗമാണ് മരണം എന്നു കരുതുന്നവരിൽ നിന്നും വ്യത്യസ്തനായി മരണത്തിന്റെ ഭാഗമാണ് മരണം എന്നു കരുതുന്നവരിൽ നിന്നും വ്യത്യസ്തനായി മരണത്തിന്റെ ഭാഗമാണ് ജീവിതം എന്നു വിലയിരുത്തുന്ന അരവിന്ദനാണ്. ദൽഹിയിലെ നായകൻ അരവിന്ദൻ എന്ന ചിത്രകാരനായ ഈ യുവാവിലൂടെയാണ് ദൽഹി അനാവൃതമാകുന്നത്. അധ്യാപകനായ അച്ഛന്റേയും കഥകളി പാരമ്പര്യമുള്ള അമ്മയുടേയും പുത്രനായി കേരളത്തിലെ പള്ളൂർ എന്ന ചെറിയ പട്ടണത്തിലാണ് അരവിന്ദൻ ജനിച്ചു വളർന്നത്. ലബൂർദനെ കോളേജിൽ നിന്നും ഒന്നാം ക്ലാസിൽ അവൻ മെട്രിക്കുലേഷൻ പാസ്സായി. വിദ്യാഭ്യാസകാലത്തു തന്നെ അരവിന്ദൻ രാഷ്ട്രീയ പ്രവർത്തനവുമായി ബന്ധപ്പെട്ടിരുന്നു. വിദ്യാർത്ഥി ഫെഡറേഷന്റെ റീജിയനൽ സെക്രട്ടറിയായി ഉയരുന്ന അരവിന്ദനെ വിചിന്തന പ്രവർത്തനത്തിന്റെ പേരിൽ കോളേജിൽ നിന്ന് പുറത്താക്കുകയും, അറസ്റ്റ് ചെയ്ത് ജയിലിലടയ്ക്കുകയും ചെയ്തു. നല്ലൊരു ചിത്രകാരൻ കൂടിയായ അരവിന്ദൻ പെയിന്റിങ്ങിൽ ഒരു ഡിപ്ലോമ വാങ്ങുകയും എറണാകുളത്തു നടന്ന ഒരു ചിത്രപ്രദർശനത്തിൽ അരവിന്ദന്റെ ‘മൃഗം’ എന്ന എണ്ണച്ചായ , ചിത്രത്തിനു സമ്മാനം ലഭിക്കുകയും ചെയ്തു. പത്രം ചിത്രകല എന്നീ മാധ്യമങ്ങളുടെ സ്വാധീനം ഈ നോവലിന്റെ ആഖ്യാനത്തിൽ മൂന്നിട്ടു നിൽക്കുന്നു.

നോവലിന്റെ പശ്ചാത്തലത്തെ പൂർണ്ണമായും കേരളത്തിന് പുറത്തുള്ള നഗരത്തിലേക്ക് മാറ്റുകയാണ് ‘ദൽഹി’യിലൂടെ മുകുന്ദൻ ചെയ്തത്. അരവിന്ദൻ തന്റെ സർട്ടിഫിക്കറ്റുകളും ചിത്രരചനയിൽ ലഭിച്ച ഡിപ്ലോമയും മൃഗം എന്ന ചിത്രത്തിന് ലഭിച്ച പ്രശംസാ



പത്രവുമായാണ് ദൽഹിയിലേക്ക് തീവണ്ടി കയറുന്നത്. തൊഴിൽ അന്വേഷിച്ചാണ് അയാൾ ദൽഹിയിൽ എത്തിച്ചേരുന്നത്. നാട്ടിൻ പുറത്തുകാരനായ അരവിന്ദൻ കണ്ട ദൽഹി അയാളിൽ ഉണ്ടാക്കിയ അമ്പരപ്പ് വളരെ മനോഹരമായി നോവലിൽ ആവിഷ്കരിച്ചിരിക്കുന്നു. തൊഴിൽ അന്വേഷിച്ചാണ് അയാൾ ദൽഹിയിൽ എത്തിച്ചേർന്നത്. ‘ആൾക്കൂട്ടത്തിനിടയിൽ അരവിന്ദൻ സംശയിച്ചു നിന്നു. അവൻ നാലുപാടും നോക്കി. പരിചയമുള്ള ഒരു മുഖം പോലുമില്ല. എല്ലാം അപരിചിതമാണ്. കേട്ടിട്ടില്ലാത്ത ശബ്ദങ്ങൾ, അറിഞ്ഞിട്ടില്ലാത്ത ഗന്ധങ്ങൾ, അപരിചിതമായ ആകാശം.. അപരിചിതമായ ഭൂമി..... മരാഠിയും, ഗുജറാത്തിയും, ബംഗാളിയും ദ്രാവിഡനും, തോളൂരുമ്മി നടന്നു. മഴയും വിയർപ്പും അലിഞ്ഞു ചേർന്നു. ക്ഷയവും, കുഷ്ഠവും, ഉഷ്ണരോഗങ്ങളും മേളിച്ചു. മഴയിൽ കുളിഞ്ഞ് ഒരു നനഞ്ഞ നായയെപ്പോലെ ദൽഹി ചുരുണ്ടു കിടന്നു’. പത്ര വാർത്തയുടെ ശൈലിയിലുള്ള ആഖ്യാന രീതിയാണ് നോവലിസ്റ്റ് ഇവിടെ സ്വീകരിച്ചിരിക്കുന്നത്. നിരവധി സംഭവങ്ങളടങ്ങുന്ന നോവലിലെ ആവർത്തിക്കുന്ന സാഹചര്യങ്ങളെ വാർത്ത അവതരിപ്പിക്കും പോലെ നോവലിസ്റ്റ് ആവിഷ്കരിച്ചിരിക്കുന്നു.

അതുപോലെ തന്നെ അച്ഛന്റെ കത്ത് വായിക്കുമ്പോൾ അരവിന്ദനുണ്ടാകുന്ന സന്തോഷം..... അവന്റെ മനസ്സിലൂടെ അച്ഛന്റെയും അമ്മയുടെയും പെങ്ങൾ രാധയുടെയും ചിത്രം മാറി മാറി കടന്നു പോകുന്നു.

‘അച്ഛന്റെ കത്ത്.

കത്തിലെ ഓരോ അക്ഷരവും തൃപ്തിയുടെയും സന്തോഷത്തിന്റേയും ചിഹ്നങ്ങളാണ്. അക്ഷരങ്ങൾ വാക്കുകളായിരുന്നു. കത്ത് അച്ഛന്റെ മനസ്സായിരുന്നു. അച്ഛൻ തന്നെ കത്തിന്റെ രൂപത്തിൽ വന്നു സംസാരിക്കുകയായിരുന്നു. ആ കത്തിലൂടെ അച്ഛനെ കണ്ടു. അച്ഛനെ മാത്രമല്ല, അമ്മയെയും, രാധയെയും, ദാസേട്ടനേയും കണ്ടു. തനിക്കൊരു പണി കിട്ടിയതിൽ അവർക്കുള്ള സന്തോഷം ചില്ലറയല്ല അച്ഛന്റെയും, അമ്മയുടെയും, രാധയുടെയും ചിരിക്കുന്ന മുഖങ്ങൾ തന്റെ മുന്നിൽ തെളിയുന്നു.



‘രാമുണ്ണി മാഷേ, മോൻ പണി കിട്ടീനു കേട്ടല്ലോ?’

‘ദൈവം സഹായിച്ചു കിട്ടി’.

‘ഒന്നാഘോഷിക്കേണ്ടേ?’

‘അതിനെന്താ വിരോധം?’

രാമുണ്ണി മാസ്റ്റർ സ്നേഹിതരേയും കൂട്ടി വീടിന്റെ മുകളിൽ പോയി റാക്കിന്റെ കുപ്പി തുറക്കുന്നു.

അമ്മ ക്ഷേത്രങ്ങളിൽ പൂജ കഴിപ്പിക്കുന്നു.

‘ദാസനെ അങ്ങട്ടു വിളിച്ചു. അരവിന്ദനെക്കിലും നീ നല്ലത് വരുത്തല്ലോ ഭഗവാനേ-’

അമ്മയുടെ കണ്ണുകൾ നിറയുന്നു.

‘കുട്ടീടെ ഏട്ടന് ദൽഹീല് പണി കിട്ടീന് കേട്ടല്ലോ’

ആ കിട്ടി

‘ഇനി കുട്ടിക്കു വാച്ചും സാരിം എല്ലാം കൊണ്ടു വരുത്തിരിക്കും.’

രായ മന്ദഹസിക്കുന്നു

അനുജനു ജോലി കിട്ടിയതറിഞ്ഞ്, ശവക്കുഴിയിൽ കിടന്നുകൊണ്ട് ദാസൻ സന്തോഷിച്ചു. അയാൾ തന്റെ മണ്ണായി മാറിയ ചുണ്ടുകൾ കൊണ്ട് മന്ദഹസിച്ചു’.

ഇവിടെ വാർത്ത അവതരിപ്പിക്കും പോലെ കഥയുടെയും കഥന രീതിയുടെയും വിശകലനം നിർവ്വഹിച്ചപ്പോൾ ആഖ്യാന രീതിയ്ക്ക് ഒരു ശാസ്ത്രീയ അടിത്തറ രൂപപ്പെടുന്നു. സംഭവങ്ങളുടെ



ഒരു നേർപകർപ്പായി പതിയുകയെന്നുള്ള പ്രാഥമിക കർത്തവ്യമാണ് പത്രവാർത്തകൾ ഇവിടെ നിറവേറുന്നത്. പത്രാഖ്യാനത്തിലൂടെ യുള്ള ലോകത്തിന്റെ പ്രയാണം ഓരോ വായനക്കാരനും മനസ്സിലേക്ക് ആവാഹിക്കാൻ കഴിയും.

ദൽഹിയിലെ അരവിന്ദൻ എന്ന കഥാപാത്രത്തിന് ദന്ദവ്യക്തിത്വമാണ് ഉള്ളത്. സ്വന്തം വീട്ടുകാർക്കുവേണ്ടി ശ്രിമിയെ സായിപ്പിന്റെ തൊഴിലാളിയായി മാറുന്ന അരവിന്ദൻ. തിന്നാതെയും ഉടുക്കാതെയും ജീവിക്കാൻ കഴിയുന്ന ജോലി ഉള്ളതും ഇല്ലാത്തതും ഒരു പോലെ കരുതുന്ന ചിത്രകാരൻ എന്ന നിലയിലുള്ള അരവിന്ദൻ. 'ജീവിക്കാൻ വേണ്ടി എന്തെങ്കിലും വരച്ചേ തീരൂ; ഉണ്ടിട്ടില്ലെങ്കിലും ഇണ ചേർന്നില്ലെങ്കിലും വരയ്ക്കണം'. എന്നു കരുതുന്ന അരവിന്ദൻ അരവിന്ദന്റെ അസ്തിത്വം തെളിയിച്ചെടുക്കുന്നതിനുള്ള ഒരു മാധ്യമമാണ് ചിത്രരചന. 'എന്തിന് വന്നു നീ ഇവിടെ? എന്തിനാണ് ദൽഹിയിൽ വന്നത്? സ്വയംചോദിക്കാറുള്ള ഒരു ചോദ്യം. ഒരു ജോലി സമ്പാദിച്ച് അച്ഛനെ വയസ്സുകാലത്ത് സഹായിക്കാനോ? ഒരൈക്സിബിഷൻ നടത്തി ചിത്രകാരനാകാനോ?

നാട്ടിൽ തനിക്ക് രക്ഷയില്ലായിരുന്നു. ഒരു ജോലി കിട്ടാൻ നിവൃത്തിയില്ലായിരുന്നു. കോളേജിൽ നിന്നും വിദ്യാഭ്യാസന പ്രവർത്തനത്തിന് പുറത്താക്കിയ തനിക്ക് ആർ ജോലി തരാൻ? നാട്ടിൽ ഒരു ചിത്രകാരൻ രക്ഷയില്ല. ഒരു ചിത്രകാരൻജനിച്ചേക്കാം. എന്നാൽ ഒരു ചിത്രകാരൻ വളരാൻ കഴിയില്ല. അവിടെ ദൽഹിയിൽ വളരാൻ കഴിയുമോ? കഴിയണം. എം.എഫ് ഹുസൈനും, എൻ.എച്ച്.കുൽക്കർണിയും, ബിരൺദേയും, സ്വാമിനാഥനും ജീവിക്കുന്ന ദൽഹിയിൽ തനിക്ക് ജീവിക്കാൻ കഴിയും.

ദൽഹി തനിക്ക് ജോലി സമ്പാദിച്ചു തന്നു. തന്നെ ചിത്രകാരൻ കൂടി ആക്കുമോ. തനിക്ക് ജോലി തരാൻ വേണ്ടി ദൽഹി സായിവായി. തന്നെ ചിത്രകാരൻ ആക്കാൻ വേണ്ടി ദൽഹി ആരാകും? തന്നെ ചിത്രകാരനാക്കാൻ വേണ്ടി ദൽഹി താനാകും. താൻ തന്നെ ചിത്രകാരനാകും.



സായിവിന്റെ ശോകച്ഛായയുള്ള കലങ്ങിയ കണ്ണുകൾ ദൽഹി യുടെ കണ്ണുകളാണ്.

‘വൈ ഡു യു പെയിന്റ്?’

‘മദ്യത്തിന്റെ ഗന്ധത്തിൽ നിന്ന് പൈപ്പിന്റെ പുകയിൽ നിന്ന്, സായിവിന്റെ പതറുന്ന സ്വരമുയർന്നു’

നാട്ടിൽ ആർട്ട് ഗാലറികളോ ആർട്ട് ക്രിറ്റിക്കുകളോ ഇല്ലായിരുന്നു. എന്നിട്ടും അരവിന്ദൻ ധാരാളം വരച്ചു. തന്റെ മുറിയിലെ ചുമരുകളും തരയും അരവിന്ദൻ കാൻവാസുകൾ കൊണ്ട് നിറച്ചു. ആ ചിത്രങ്ങൾ കാണുവാനോ അഭിപ്രായം പറയുവാനോ ആരും അവിടേയ്ക്ക് എത്തിയില്ല. എന്നിട്ടും അരവിന്ദൻ വരച്ചു.

‘നഗരത്തിൽ നിരവധി ഗാലറികളുണ്ട്. ദിവസേന അയിഫാക്സിലും, ത്രിവേണിയിലും, ധൂമിമാലിലും മറ്റു പ്രൈവറ്റ് ഗാലറികളിലും എക്സിബിഷൻ നടക്കുന്നു. രാഷ്ട്രപതിയും അംബാസഡർമാരും പ്രദർശനങ്ങൾ തുറക്കുന്നു. ആയിരക്കണക്കിനു സന്ദർശകർ ചിത്രങ്ങൾ വന്നു കാണുന്നു. പത്രങ്ങളും വാരികകളും മാസികകളുമെല്ലാം നിരൂപണങ്ങൾ പ്രസിദ്ധീകരിക്കുന്നു. ഗാലറിക്കാരും വിദേശികളുമെല്ലാം പതിനായിരക്കണക്കിന് ഉറുപ്പിക ചിലവഴിച്ചു ചിത്രങ്ങൾ വാങ്ങിക്കൊണ്ടു പോകുന്നു. എന്നിട്ടും താൻ വരയ്ക്കുന്നില്ല’

ഒരു ചിത്രകാരനാകുന്നതിലൂടെ സ്വയം കണ്ടെത്താമെന്ന പ്രതീക്ഷ അരവിന്ദനുണ്ടായിരുന്നു. മറ്റുള്ളവരെപ്പോലെ സാധാരണക്കാരനായി തിന്നും കുടിച്ചും കഴിയാൻ തനിക്കാവില്ലെന്ന അരവിന്ദന്റെ ബോധം ഒരു കലാകാരന്റേതാണ്. എന്നാൽ അരവിന്ദന്റെ ആ അസ്ഥിത്വത്തെ അംഗീകരിക്കാൻ നഗര സംസ്കാരത്തിന് കഴിയുന്നില്ല.

‘ദൽഹി’യിലെ കഥാനായകൻ അരവിന്ദൻ ഇങ്ങനെ ഓർക്കുന്നു. ‘താൻ വിദ്യാർത്ഥി സംഘടനയുടെ നേതാവായിരുന്നു.



രാഷ്ട്രീയ പ്രവർത്തകനായിരുന്നു. ഒരു കാലത്ത് താൻ പെയിന്റ് രായിരുന്നു. അന്ന് പെയിന്റിങ്ങിനെക്കുറിച്ച് മാത്രമാണ് താൻ ചിന്തിച്ചിരുന്നത്. തല നിറയെ നിറങ്ങൾ മാത്രമായിരുന്നു. തന്റെ ഹൃദയവും തലച്ചോറും അന്ന് വർണ്ണങ്ങളിൽ പണിതതായിരുന്നു. മൈലാഞ്ചിയും, മഞ്ഞളും, പൊടിമണ്ണും ഉപയോഗിച്ച് അന്ന് താൻ പരീക്ഷണം നടത്തി നോക്കി. എന്നാൽ ഇന്ന് താൻ ആരും അല്ല. ഇന്ന് ആരെങ്കിലുമാണെങ്കിൽ അത് അരുമുഖത്തിന്റെ കീഴിലെ ജോലിക്കാരനും കുഞ്ഞിരാമൻ നായരുടെ ലോഡ്ജിലെ അന്തേവാസിയുമാണ്. എന്നിലെ ചിത്രകാരൻ കൊല്ലപ്പെട്ടിരിക്കുന്നു. ആരാണ് കൊന്നത്? ദൽഹി... ദൽഹി നഖങ്ങളിലും ദംഷ്ട്രകളിലും തന്റെ ചോരയണിഞ്ഞ് നിന്ന് തുള്ളുന്നു' മനസ്സിൽ നിറയെ ആഗ്രഹങ്ങളുമായി ജീവിച്ച നിരാശാഭരിതനായ ഇന്ത്യൻ യുവത്വത്തിന്റെ കഥ ദൽഹി നമുക്ക് പറഞ്ഞു തരുന്നു. ദൃശ്യങ്ങളിലും എഴുത്തുകളിലും നമ്മൾ വായിച്ചറിഞ്ഞ അല്ലെങ്കിൽ കണ്ടറിഞ്ഞ ദൽഹിയുടെ വിഭിന്ന രൂപത്തെ ഇവിടെ നോവലിസ്റ്റ് നമുക്ക് അടയാളപ്പെടുത്തിത്തരുന്നു. അതുപോലെ തന്നെ 'ഒരു സർവ്വിലിസ്റ്റിക് ചിത്രത്തിന്റെ ബീജാവാപം നടന്നു കഴിഞ്ഞിട്ടു ദിവസങ്ങൾ വളരെയായി ബീജം അണ്ഡമാകുകയാണ്. അണ്ഡം വളരുകയാണ്. ചിത്രത്തിന്റെ ഭാവവും രൂപവും മനസ്സിൽ തെളിഞ്ഞു കിടപ്പുണ്ട്. കറുത്ത പൂഷ്പങ്ങൾ, ദേഹം നിറയെ നിരവധി കണ്ണുകളുള്ള പെൺകുട്ടി. കുറെ സിംബലുകൾ, കരുത്തുറ്റ സുന്ദരമായ പ്രതീകങ്ങൾ എങ്ങനെയാണ് എപ്പോഴാണ് ഈ ചിത്രത്തിന്റെ ബീജാവാപം നടന്നത്? ഈ പ്രതീകങ്ങളൊക്കെ എങ്ങനെ എപ്പോൾ തന്റെ മനസ്സിൽ ഉരുത്തിരിഞ്ഞു? ആലോചിക്കുവാനോ, ധ്യാനിക്കുവാനോ ഈയിടയായി സമയം കിട്ടാറില്ലല്ലോ. പകൽ മുഴുവൻ ആപ്പീസിലെ അധാനം. രാത്രി ആ അധാനത്തിൽ നിന്നും കിട്ടിയ തളർച്ച. ഈ തിരക്കിനിടയിലും, തളർച്ചയുടെ ഇടയിലും തനിക്ക് ഒരു ചിത്രത്തിനു രൂപം കൊടുക്കാൻ കഴിഞ്ഞു. ക്യാൻവാസിലല്ലെങ്കിൽ, മനസ്സിലെങ്കിലും.

താൻ ആപ്പീസിലെ ശബളക്കാരനല്ല.

അതുപോലെ തന്നെ അവിന്ദൻ ഓർക്കുന്നു





സാഹിത്യഅക്കാദമിയിൽ ഒരു പ്രസംഗം കേൾക്കാൻ പോയപ്പോഴാണ് താൻ അരുണഅവ്യാസ് എന്ന ചിത്രകാരനെ പരിചയപ്പെടുന്നത്. വ്യാസിന്റെ ചിത്രങ്ങളുടെ പ്രദർശനം കാണുന്നതിനും ഒരിക്കൽ അരവിന്ദൻ അവസരം ലഭിച്ചു.

‘ഞായരാഴ്ചയായതു കൊണ്ട് എക്സിബിഷൻ കാണാൻ ധാരാളം ആളുകൾ വന്നു കൊണ്ടിരുന്നു.

‘ഹെലോ!’

കൈപിടിച്ചു കുലുക്കിക്കൊണ്ട് വ്യാസ് കുശലം പറഞ്ഞു.

ആകെ മുപ്പത് ചിത്രങ്ങളുണ്ട്. ഹാൾ നിറഞ്ഞു കവിഞ്ഞു കിടക്കുകയാണ്. ഓരോ ചിത്രവും വർണങ്ങളുടെ മേളയാണ്. ഉദിച്ചുയരുന്ന ചുവന്ന സൂര്യൻ. ആകാശത്തെ പ്രതിഫലിപ്പിക്കുന്ന തടാകം ഹോളി കളിക്കുന്ന ഗ്രാമീണർ. ദീപാവലി. വ്യാസ് നിറങ്ങൾ മാത്രമെ കാണുന്നുള്ളൂ. ലോകത്തിൽ നിറങ്ങൾ മാത്രമേയുള്ളൂ.

പണ്ടൊരിക്കൽ തങ്ങളുടെ ഓഫീസിൽ വെച്ച് കിറ്റി ദിംഗ്രേയുടെ പെയിന്റിങ് എക്സിബിഷൻ നടന്നതിനെക്കുറിച്ച് അരവിന്ദൻ ഓർത്തു. ഭവാനന്ദ ആണ് അരവിന്ദനോട് ആ കാര്യം അറിയിച്ചത്.

‘ടൺത്തിനാണ് ഇനോഗുറേഷൻ, അല്ലേ?’ ഭവാനന്ദ ചോദിച്ചു

‘എന്തിനോഗുറേഷൻ?’

‘നിങ്ങളുടെ ആപ്പീസിലെ എക്സിബിഷൻ ഐ മീൻ’.

‘ആപ്പീസിലേ’?

‘നിങ്ങൾ അറിഞ്ഞിട്ടില്ലേ!’

‘ഇല്ലല്ലോ



‘കിറ്റി ദിഗ്രോയുടെ പെയിന്റിങ്ങ്സ് എക്സിബിഷൻ നിങ്ങളുടെ ആപ്ലി സിൽ തന്നെ കാർഡ് കണ്ടിട്ടില്ലേ!’

എക്സിബിഷനെക്കുറിച്ച് താൻ ഒന്നും തന്നെ അറിഞ്ഞിട്ടില്ലല്ലോ.

മിസിസ് കിറ്റി ദിഗ്രോയുടെ ചിത്രപ്രദർശനം ഉദ്ഘാടനം ചെയ്യുന്നതു മറ്റാരുമല്ല ശ്രീമിയെ സായിവു തന്നെ

‘ആരാണ് കിറ്റി ദിഗ്രോ?’ അങ്ങനെ ഒരു ചിത്രകാരിയെക്കുറിച്ച് താൻ കേട്ടിട്ടേയില്ല.

കിറ്റിദിഗ്രോ എന്ന ഒരു പെയിന്ററെക്കുറിച്ച് അരവിന്ദൻ കേട്ടിട്ടില്ല. ഭവാ നന്ദും ശാലിനിയും കേട്ടിട്ടില്ല.

‘ആരാണ് കിറ്റിദിഗ്രോ?’

‘നഗരത്തിൽ നിരവധി പെയിന്റേഴ്സുണ്ട്. അവരിൽ ഫാഷനുവേണ്ടി വരയ്ക്കുന്നവരും അന്തഃപ്രചോദനം കൊണ്ടു വരയ്ക്കുന്നവരുമുണ്ട്. കഴമ്പുള്ള വരെയും ഇല്ലാത്തവരെയും അക്കൂട്ടത്തിൽ കാണാം. കിറ്റി ദിഗ്രോ എന്തുതരം പെയിന്ററാണ്? അവൾ ബ്രാക്കിന്റെ പിൻഗാമിയായ ക്യൂബിസ്റ്റാണോ? കുരിശുവരയ്ക്കുന്ന റൂബൻസാണോ! സ്ഫിൻക്സിനെയും മമ്മികളെയും വരയ്ക്കുന്ന മേഴ്സണോ?’

‘താൻ വരയ്ക്കും....’ എന്ന് അരവിന്ദൻ തന്നോട് തന്നെ പറയുന്നുണ്ട്. പക്ഷേ എന്നു വരയ്ക്കും? തനിയ്ക്കു വരയ്ക്കാൻ അറിയുമോ? അല്ലെങ്കിൽ ഇപ്പോഴും വരയ്ക്കുവാനുള്ള കഴിവ് തനിയ്ക്കുണ്ടോ. അതോ ആഗ്രഹം മാത്രമെ ഉള്ളോ. തന്റെ കഴിവ് തുരുമ്പ് പിടിച്ച് പോയിക്കാണുമോ... ഒന്നും അരവിന്ദന് കൃത്യമായി മനസ്സിലാക്കാൻ സാധിക്കുന്നില്ല. അരവിന്ദൻ മരിക്കാം. പക്ഷേ അരവിന്ദനിലെ ചിത്രകാരൻ ഒരിക്കലും മരിച്ചുകൂടാ. അയാൾ ചിന്തിക്കുന്നുണ്ട്. വ്യാസിന്റെ ലോകത്തിൽ നിറങ്ങൾ മാത്രമേയുള്ളൂ.

‘വളരെ സെന്റിമെന്റൽ’



‘സെന്റീമെന്റിലിസ്റ്റിനേ സൗന്ദര്യം ദർശിക്കാൻ കഴിയു

യുമീൻ സൂപ്പർ ഫിഷിയൽ’

ഒരു ചിത്രകാരൻ എന്ന നിലയിൽ വ്യാസിന് ഇനിയും എത്രയോ ദൂരം സഞ്ചരിക്കേണ്ടതുണ്ട്. ചിത്രങ്ങൾ മുഴുവൻ കണ്ടതിനു ശേഷം അരവിന്ദൻ വ്യാസുമായി സംസാരിച്ചിരുന്നു.

സന്ദർശകർ പിന്നെയും വന്നുകൊണ്ടിരുന്നു. അവരെയൊക്കെ വ്യാസിനു പരിചയമുണ്ട്. അയാളുടെ കുടുംബക്കാരും ബന്ധുക്കളും പരിചയക്കാരുമാണെന്നു തോന്നി അധികവും. ചിത്രങ്ങൾ അവർക്കിഷ്ടമായി. ചുവപ്പും പച്ചയും മഞ്ഞയും നീലയുമൊക്കെ നിറങ്ങൾ ആർക്കാണിഷ്ടമാകാത്തത്’.

താൻ വരയ്ക്കും

‘ഇല്ല, പെണ്ണിനും പണത്തിനും കുഞ്ഞുങ്ങൾക്കും ഒന്നും തന്നെ തൃപ്തനാക്കാൻ കഴിയില്ല. പെയിന്റിങ്ങിന് മാത്രമെ തനിക്ക് രോസലിൻ വേണ്ട. അദ്ധ്യാപക വൃത്തി വേണ്ട. ഫ്ളാറ്റ് വേണ്ട. കാർ വേണ്ട. കുട്ടികൾ വേണ്ട. തനിക്ക് ചിത്രം വരച്ചാൽ മതി. തനിക്ക് ജാക്കപ്പോ ആയാൽ മതി’. എന്നാണ് അരവിന്ദൻ ചിന്തിക്കുന്നത്.

ഒരിക്കൽ ഭവാനന്ദും അരവിന്ദനും തമ്മിലുള്ള സംഭാഷണത്തിനിടയിൽ ശാലിനി അവരുടെ ശ്രദ്ധ ആകാശത്തിലേക്ക് ക്ഷണിച്ചു ‘ഇന്ത്യാ ഗെയ്റ്റിനു മുകളിൽ കടും നീലനിറമുള്ള മേഘരഹിതമായ ആകാശം പരന്നു കിടക്കുന്നു.

ഭവാനന്ദും ശാലിനിയും ആകാശത്തിൽ നോക്കി.

കരുണം മീനാക്ഷിയും ആകാശത്തിൽ നോക്കി.

അരവിന്ദൻ ആകാശത്തിൽ നോക്കി.

അവർ ആകാശത്തിൽ നോക്കിയിരുന്നു.



നീലാഭവും ചൈതന്യാത്മകവുമായ ഒരു പ്രളയം ആകാശത്തിന്റെ രൂപത്തിൽ ഭൂമിയ്ക്കു മുകളിൽ പരന്നു കിടക്കുന്നു. ഈ നീല നിറവും ഈ ചൈതന്യവും ഒരു ബ്രഹ്മകൊണ്ട് ഒപ്പിയെടുത്ത് ഒരു കാൻവാസിൽ പതിക്കാൻ കഴിഞ്ഞുവെങ്കിൽ... ആകാശം നീല നിറത്തിൽ ഒരു മഴയായി ഭൂമിയിലേക്ക് പെയ്തെങ്കിൽ... അത് തനിക്ക് കാൻവാസിൽ പകർത്താൻ കഴിഞ്ഞെങ്കിൽ... ‘ബ്ലൂ റെയിൻ’ എന്ന ഒരു വലിയ കാൻവാസിനെ ആകാശത്തിൽ നോക്കിയിരുന്നുകൊണ്ട് അവൻ സ്വപ്നം കണ്ടു.

‘ഇപ്പോഴെന്താണ് വരയ്ക്കുന്നത്’

ഭവാനന്ദ് ചോദിച്ചു.

‘ഒന്നുമില്ല’ ‘ഒന്നും’?

ഇല്ല ഒന്നുമില്ല. ഉണ്ട്. പക്ഷേ, മനസ്സിൽ... മനസ്സിൽ ‘നീല മഴ’പോലുള്ള നിരവധി ചിത്രങ്ങൾ വരച്ചുവെച്ചിട്ടുണ്ട്. യാത്രാ മധ്യേ കാണാനിടയായ തരിശു ഭൂമിയും കാടും മനസ്സിൽ മരങ്ങളെ കെട്ടു പിണഞ്ഞു കിടക്കുന്ന സർപ്പങ്ങളാക്കി മനസ്സിൽ വരച്ചുവെച്ചിട്ടുണ്ട്...

ചിത്രം വരയ്ക്കാൻ വേണ്ടി അരവിന്ദൻ തന്റെ ജോലി ഉപേക്ഷിച്ചു. ‘മുറി നിറയെ ചിത്രങ്ങളാണ്. കൊമ്പുകളുള്ള സുന്ദരിയും ബിഥോവന്റെ സിംഹണിയുമെല്ലാം അനാഥമായി കിടക്കുന്നു. അഞ്ചാറു മാസത്തെ പ്രയത്ന ഫലങ്ങളാണതൊക്കെ. ചോരനീരാക്കി വരച്ചതാണ്... ഈ ഓരോ ചിത്രവും തനിക്ക് പ്രിയപ്പെട്ടതാണ്. അവ ഓരോന്നും തന്റെ മാസ്റ്റർ പീസാണ്. ഇപ്പോൾ ഒരു ഭാരമായി തോന്നുന്ന ഈ ചിത്രങ്ങൾ ഒരു ദിവസം തന്നെ പ്രശസ്തനും പണക്കാരനുമായിത്തീരും... ദിവസം മുഴുവൻ ചിത്രങ്ങളിൽ കണ്ണുനട്ടു കട്ടിലിൽ കിടക്കുകയാണ്. ഓരോ ചിത്രത്തിലെയും ഓരോ ബിന്ദുവും പരിചിതമാണിപ്പോൾ അങ്ങനെ നോക്കിക്കൊണ്ടിരിക്കുമ്പോൾ അഭിമാനം തോന്നും. ജീവിതത്തിൽ ഇന്നുവരെ തോൽവിയേ അറിഞ്ഞിട്ടുള്ളൂ. എന്നാൽ ഇവിടെ താൻ ജയിക്കുന്നു. ഒരു ചിത്രകാ



രൻ എന്ന നിലയിൽ താൻ ജയിച്ചിരിക്കുന്നു'. എന്ന് അരവിന്ദൻ ചിന്തിക്കുന്നു.

അരവിന്ദൻ താൻ വരച്ച ചിത്രങ്ങളൊക്കെ എവിടെയെങ്കിലും ഒന്ന് പ്രദർശിപ്പിക്കാൻ ആഗ്രഹിക്കുന്നു. അതിലൂടെ താൻ ഒരു അംഗീകൃത ചിത്രകാരനാകും എന്ന ഉത്തമ ബോധ്യം അരവിന്ദനുണ്ടായിരുന്നു. ഒരു വൺമാൻ ഷോ നടത്തിയെങ്കിൽ ഒരൊറ്റ ദിവസം കൊണ്ട് താൻ കിറ്റിയെയും വ്യാസിനെയുമെല്ലാം മറികടക്കും. ഇത്രയും കാലം താൻ കണ്ട സ്വപ്നങ്ങൾ ഒക്കെയും യാഥാർത്ഥ്യമാകും എന്ന് അരവിന്ദൻ ചിന്തിക്കുന്നുണ്ട്.

ജോലിയില്ലാതെയും പട്ടിണി കിടന്നും വരച്ചുണ്ടാക്കിയ ചിത്രങ്ങൾ പ്രദർശിപ്പിക്കാൻ അരവിന്ദൻ നടത്തിയ സാഹസങ്ങൾ ചിത്രകലയിലൂടെ സ്വയം കണ്ടെത്താൻ ശ്രമിക്കുന്ന വ്യക്തിയുടേതാണ്. ഇവിടെ ചിത്രകലയിലൂടെ ജീവിതത്തിന്റെ താളം കണ്ടെത്തുവാനുള്ള അരവിന്ദന്റെ ശ്രമം പക്ഷെ പരാജയപ്പെടുകയാണ് ചെയ്തത്. ജീവിതത്തിൽ നിന്നും മനുഷ്യനെ അന്യവൽക്കരിക്കുന്ന വ്യവസ്ഥകലയെയും ഒരു വിൽപ്പന ചരക്കായി മാറ്റുന്നു. ഈ സത്യം തിരിച്ചറിയാൻ പലപ്പോഴും അരവിന്ദനാകുന്നില്ല. യഥാർത്ഥമായ ഒരു പ്രശ്നത്തിന് അയഥാർത്ഥമായൊരു പരിഹാരം തേടുകയാണ് അയാൾ ചെയ്തത്. ആധുനിക കലയിലെ നിഷേധ വാസനയെക്കുറിച്ച് 'സർവ്വ നിഷേധവും ശൂന്യതാ വാദവും' (ചശവശഹശൊ) ലൊടുങ്ങുന്നത് ഇങ്ങനെയാണ്. 'പ്രതിഷേധം തന്നെ പുജാവിഗ്രഹമായി മാറുകയും രോഷം ആസ്വദനീയമാവുകയും ചെയ്യുമ്പോൾ കലാപം ഒരു കലാപരിപാടി മാത്രമായി മാറുന്നു'. എന്ന സച്ചിദാനന്ദന്റെ വാക്കുകൾ ഇവിടെ പ്രസക്തമാണ്. യാഥാർത്ഥ്യത്തോടുള്ള വ്യത്യസ്തങ്ങളായ പ്രതികരണങ്ങളാണ് കലയും ലഹരിയും കല എന്നത് മുർത്തമായ അനുഭവങ്ങളുടെ അമൂർത്തമായ ആവിഷ്കരണമാണ്. മാത്രവുമല്ല യാഥാർത്ഥ്യത്തിന്റെ ആവിഷ്കാരവും ഭാവനാത്മകവുമായ ചിത്രീകരണവുമാണ് ഇത്.



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### നാടോടിസംസ്കാരവും പാരിസ്ഥിതികാവബോധവും

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പന്തളം

മനുഷ്യന്റെ മൗലികമായ ചിന്തകളുടെയും ആശയങ്ങളുടെയും ആവിഷ്കാരവേളകളിൽ കടന്നുവന്ന ഒരു പദമാണ് പ്രകൃതി. ഇതുശ്ചൈതന്യമുള്ള ആശയത്തിന് സൗമ്യത ഉൾക്കൊള്ളുന്ന ഉപരിതലാർത്ഥവും സങ്കീർണ്ണത ഉൾക്കൊള്ളുന്ന ആന്തരാർത്ഥവുമുണ്ട്. പ്രകൃതിയേയും അതിന്റെ അത്യുദാത്തമായ സംസ്കൃതിയേയും എങ്ങനെ അഭംഗ്യരും നിലനിർത്താമെന്ന തീവ്രമായ ഉൽകണ്ഠയാണ് പരിസ്ഥിതിബോധത്തിന് പിന്നിലെ ചാലകശക്തി. പ്രകൃതി സജീവമായ ഒരു സർഗ്ഗശക്തിയാണ്. അത് രൂപാവിഷ്കരണ ക്ഷമയുടെ പ്രഭവസ്ഥാനമാണ്. പ്രകൃതിയുമായി ഇണങ്ങിയും പിണങ്ങിയും, ഒത്തുപോകാനുള്ള അപൂർവ്വ അവസരമാണ് ജീവിതം. പ്രകൃതിയുടെ ഭാഗമായിട്ടാണ് പ്രകൃതിയെ പ്രയോജനപ്പെടുത്തുകയാണ് ഓരോ മനുഷ്യനും സ്വന്തം ജീവിതം കെട്ടി ചെയ്യേ ത്. കലാകാരന് പ്രകൃതിയിലൂടെ മാത്രമേ ആവിഷ്കാരം സാധിക്കുകയുള്ളൂ. കലാകാരന്റെ മനസ്സ് ബാഹ്യ പ്രകൃതിയുടെ സൗന്ദര്യത്തെ സ്വാംശീകരിക്കുന്നു.

#### പരിസ്ഥിതിയും നാടോടിസംസ്കാരവും

മനുഷ്യനും പ്രകൃതിയും തമ്മിലുള്ള പരസ്പര ബന്ധമാണ് സാമൂഹിക വ്യവസ്ഥകൾക്ക് അടിസ്ഥാനം. മനുഷ്യജീവിതത്തിന് മേൽ പ്രകൃതി ചെലുത്തുന്ന സ്വാധീനം വളരെ വലുതാണ്. മനുഷ്യൻ പ്രകൃതിഭയത്തോടുള്ള വസ്തുതകളെ സ്വായത്തമാക്കുന്നത് അവയെ പരിവർത്തനം ചെയ്യുന്നതിലൂടെയാണ്. അധ്വാനം അതിന്റെ രൂപാന്തരമാണ്. അതുകൊണ്ട് കല ഒരു തൊഴിലാണെന്ന് പറയുന്നത്.

#### പ്രകൃതിയും മനുഷ്യനും

പ്രകൃതിയെ ഇഷ്ടാനിഷ്ടങ്ങൾക്ക് അനുകൂലമായി രൂപപ്പെടുത്തി എടുക്കുവാനുള്ള പ്രാചീന സമൂഹത്തിന്റെ ശ്രമത്തിൽ നിന്നാണ് അവരുടെ ജീവനോപാധിയായ കൃഷിയും നാടോടിസംസ്കാരവും കലകളുമെല്ലാം ഉടലെടുത്തത്. പ്രകൃതിയോട് ഇണങ്ങിയും പിണങ്ങിയും അതിനെ മെരുക്കിയും അതുമായി നിരന്തരം ഇടപഴകിയും കഴിഞ്ഞമനുഷ്യന് അവന്റെ ജീവാംശം തന്നെയായിരുന്നു പ്രകൃതി. അതുകൊണ്ട് തന്നെ അവന്റെ ആത്മാവിഷ്കാരത്തിൽ പ്രകൃതി പ്രധാന സ്ഥാനം നേടി. ജ്യോതിഷവും ജീവിത ചക്രവും കെട്ടുപിണഞ്ഞു കിടക്കുന്നതിന്റെ പിന്നിലുള്ള തത്ത്വവും ഇതു തന്നെ. പ്രകൃതിയും മനുഷ്യനും തമ്മിലുള്ള ഈ ഏകീഭാവത്തിൽനിന്നാണ് മനുഷ്യന്റെ കലാസാംസ്കാരിക ചിന്തകളെല്ലാം പിറവിയെടുത്തതെന്ന് കരുതാം.



**പ്രകൃതിയും ആരാധനയും**

പ്രകൃതിയിലെ ജീവിതസാഹചര്യങ്ങളോട് ഇടപഴകിയ പ്രാചീനമനുഷ്യൻ മുൻത്തമായ പ്രകൃതി ശക്തികളെ ആരാധിക്കുവാൻ തുടങ്ങി. അതോടുകൂടി ഗോത്രാരാധന രൂപമെടുത്തു. ഒരു വ്യക്ഷണത്തെയോ മൃഗത്തെയോ സങ്കല്പിച്ചുകൊള്ള മനുഷ്യന്റെ പ്രാചീനതമമായ ഈ ആരാധനാരീതിയെ പ്രകൃതിയുമായി തന്ധിഭവിപ്പിക്കുവാനുള്ള ശ്രമമായി കരുതാവുന്നതാണ്. പ്രകൃതിയുടെ വരദാനങ്ങളായ ജലവും മറ്റ് വിഭവങ്ങളുമെല്ലാം ഉപയോഗിച്ചുകൊണ്ട് ഉപജീവനം കഴിച്ചുവന്ന ഒരു പ്രാചീന കാലഘട്ടത്തിൽ, ആരാധനയെക്കുറിച്ചു ചിന്തിച്ചപ്പോൾ അത് പ്രകൃതി സാമഗ്രികൾ തന്നെയാകട്ടെ എന്നു മനുഷ്യൻ കരുതി. ഈ ഗോത്രചിന്ത തങ്ങളുടെ രക്ഷാകവചം കൂടിയായി അവർ കരുതി വന്നു. പ്രാചീന സംഘകാലത്ത് ഏഴിമലയിലെ രാജാവായിരുന്ന നന്നന്റെ കാവൽമരം അഥവാ ഗോത്രചിന്തം വേപ്പുമരമായിരുന്നു. ആ വേപ്പുമരം മുറിച്ചതിന് ശേഷം മാത്രമേ നന്നനെ വധിക്കാൻ ശത്രു രാജാവിന് കഴിഞ്ഞുള്ളൂ എന്ന് സംഘകാലകൃതികളിൽ നിന്ന് മനസ്സിലാക്കാം.

ദുർഭവതകളെ മാന്ത്രിക ശക്തിയിലൂടെ ആവാഹിച്ച് പാലുള്ള മരങ്ങളിൽ കുടിയേറ്റുക എന്ന വിശ്വാസം കേരളത്തിൽ നിലനിന്നിരുന്നു. പഞ്ചുരുളി എന്ന തെയ്യം ആൽമരത്തിൽ കുടികൊള്ളുന്നു എന്ന് അതിന്റെ പുരാവൃത്തം വ്യക്തമാക്കുന്നു. ഈ തെയ്യത്തിന്റെ പ്രധാന ചടങ്ങ് മരത്തിൽ നിന്നിറക്കലും അവസാന ചടങ്ങ് മരത്തിൽ നിന്നകറ്റലുമാണ്. മന്ത്രമുൻതയായ അമ്മദൈവമാണ് പഞ്ചുരുളി. മരത്തിലേറ്റുക എന്നതിനർത്ഥം കാട്ടിലേയ്ക്കയ്ക്കുക എന്നും വ്യാഖ്യാനിക്കാവുന്നതാണ്. ഈ വിധത്തിലായാലും ഈ ദേവതയും വനവുമായുള്ള ബന്ധം അഭേദ്യമാണെന്ന് വരുന്നു. സർപ്പക്കാവുകൾ സ്ഥാപിച്ച്, അവയ്ക്കുള്ളിലുള്ള വൃക്ഷങ്ങൾ മുറിക്കരുതെന്ന വിലക്ക് ഏർപ്പെടുത്തിയതിന്റെ പിന്നിലും ഈ വിശ്വാസത്തിന്റെ സ്പർശം കാണാം. അത്തി, ഇത്തി, ആൽ, അരയാൽ, എന്നീ നാൽപ്പാമരങ്ങളെ വിശുദ്ധ വൃക്ഷങ്ങളായി പ്രഖ്യാപിച്ചതിന്റെ അടിസ്ഥാനവും മറ്റൊന്നല്ല. ഈ ക്ഷീരവൃക്ഷങ്ങളെ ആദികാലങ്ങളിൽ ആരും മുറിക്കുമായിരുന്നില്ല. മാതൃദേവതാ സങ്കല്പവുമായി ഇതിനെ ബന്ധപ്പെടുത്താവുന്നതാണ്. ക്ഷീരവൃക്ഷങ്ങളേയും അമ്മയേയും ഒന്നായി കണക്കാക്കുന്ന മനോഭാവം പ്രാകൃത വിശ്വാസങ്ങളിൽപ്പെട്ട ഒന്നാണ്. പാലക്കൊമ്പ്നാട്ടുക എന്നത് ഭദ്രകാളിയുടെ ആരാധനയുമായി ബന്ധപ്പെട്ട പ്രാചീനമായ ഒരനുഷ്ഠാനമാണ്. ഭദ്രകാളി, യക്ഷി, ഗന്ധർവൻ തുടങ്ങിയ ദേവതകൾ പാലമരങ്ങളിൽ അധിവസിക്കുന്നു എന്ന വിശ്വാസവും നിലവിലുണ്ട്.





**കാവുകൾ - വിശ്വാസങ്ങൾ**

ആധുനിക ശാസ്ത്രത്തിന്റെ അളവുകോലുകൾക്ക് അതീതമായ സങ്കീർണ്ണതകൾ നിറഞ്ഞതാണ് പ്രാചീന ആചാരങ്ങളും ജീവിത രീതികളും. മനുഷ്യവാസമുള്ള പ്രദേശങ്ങളിൽ ചില വിശ്വാസങ്ങൾ മൂലം ഇനിയും പോരാൾ ഏൽക്കാതെ നിലനിൽക്കുന്ന കന്യാവനങ്ങളുടെ ഖണ്ഡങ്ങളാണ് കാവുകൾ എന്ന പേരിലറിയപ്പെടുന്നത്.<sup>5</sup>

കേരളത്തിൽ മാത്രമല്ല ഇന്ത്യയിലെ മറ്റ് പല പ്രദേശങ്ങളിലും ഇവ കൂവുന്നു. കർണ്ണാടകത്തിൽ 'ദേവൻ കാടുകളെന്നും' 'സിദ്ധരവന'ങ്ങളെന്നും ഇവ അറിയപ്പെടുന്നു. 'ദേവറായ' എന്നു മഹാരാഷ്ട്രത്തിലും, 'ദേവ് ' എന്ന് ഗുജറാത്ത്, മധ്യ പ്രദേശ് എന്നിവിടങ്ങളിലും ഇതിനെ വിളിക്കുന്നു. ഉത്തരേന്ത്യയിൽ ഇവ പ്രധാനമായും ആദിവാസിമേഖലകളിലാണ് കാണപ്പെടുന്നത്. അതിവേഗം അപ്രത്യക്ഷമായിക്കൊരിക്കലുമില്ലാത്ത ഈ ജൈവ വൈവിധ്യത്തിന്റെ ദ്രീപുകളെ രക്ഷിക്കാൻ ഐക്യരാഷ്ട്ര സംഘടനയുടെ ഭാഗമായ യുനെസ്കോ തന്നെ അടുത്തിടെ ആവശ്യപ്പെടുകയായി. ഭൂമിയിൽ നിന്ന് എങ്ങനെയെങ്ങനെയായി നഷ്ടപ്പെട്ടു എന്ന് കരുതിയിരുന്ന പല സസ്യങ്ങളും കാവുകളിൽ കണ്ടെന്ന് കഴിയും. റിസർവ്വ് വനങ്ങളിൽ പോലും ലഭിക്കാത്ത സുരക്ഷിതത്വം നാട്ടിൻപുറങ്ങളിലെ വിശ്വാസങ്ങൾ ഈ കാവുകൾക്ക് നൽകുന്നു എന്നതാണ് ഇതിനുകാരണം.

കേരളത്തിന്റെ പ്രത്യേകമായ പരിതസ്ഥിതിയിൽ സസ്യവൃക്ഷ വൈവിധ്യത്തോടൊപ്പം മറ്റൊരു സുപ്രധാനമായ പങ്ക് കാവുകൾ വഹിച്ചിരുന്നു. ഈ പ്രദേശത്തെ പ്രകൃതിയുടെ തനതായ വൃക്ഷലതാദികളാണ് കാവുകളിൽ കാണപ്പെടുന്നത്. ഒരു സാധാരണ കേരളഗ്രാമത്തിന്റെ ഘടനയിൽ ഒന്നിലേറെ കാവുകളും അവ നീരുട്ടുന്ന കുളങ്ങളും കുളങ്ങളിലെ ജലം ഒഴുകിയിറങ്ങുന്ന നെൽവയലുകളും നിലനിർത്തിയിരുന്ന സന്തുലിതാവസ്ഥ മുഴുവനും ഇന്ന് നഷ്ടപ്പെട്ടുകൊരിക്കലുമില്ലാത്ത യാത്രികയുഗവും നഷ്ടമാകുന്ന വിശ്വാസങ്ങളും ചേർന്ന് കാവുകൾ കൃഷിയിടങ്ങളും, വ്യവസായസ്ഥാപനങ്ങളും മറ്റുമായി മാറ്റപ്പെടുന്നു. കുളങ്ങളും നെൽവയലുകളും നികത്തപ്പെടുന്നു. പതുക്കെ പതുക്കെ ഐശ്വര്യത്തിന്റേയും സമൃദ്ധിയുടേയും വിളനിലങ്ങളായിരുന്ന ഇതേ ഗ്രാമങ്ങൾ വരൾച്ചയ്ക്കും പ്രകൃതിക്ഷോഭത്തിനും കാരണമാകുന്നു.

**വിശ്വാസം**

കേരളത്തിൽ ഭഗവതിക്കാവുകൾ, ശാസ്താക്കാവുകൾ തുടങ്ങിയവയൊക്കെ കാണപ്പെടുന്നുണ്ടെങ്കിലും സർപ്പക്കാവുകൾക്കാണ് പ്രഥമസ്ഥാനം. പ്രത്യേക സന്ദർഭങ്ങളിലൊഴികെ കാവുകളിൽ കടക്കുന്നതുപോലും വിലക്കപ്പെട്ടിരുന്നു. ഇപ്പോഴും പല കാവുകളിലും പ്രവേശനം നിഷേധിക്കപ്പെട്ടിരിക്കുന്നു. ഇതിന് എതിരായി പ്രവർത്തി



ച്ചാൽ ദോഷഫലങ്ങളാകും എന്ന വിശ്വാസമാണിതിന് കാരണം. കേരളോൽപ്പത്തിയിൽ കേരളത്തിലെ കാവുകളുടെ ഉൽപ്പത്തിയെപ്പറ്റി പരാമർശമുണ്ട്. പരശുരാമൻ കേരളത്തിൽ കുടിയിരുത്തിയ ബ്രഹ്മണർ സർപ്പങ്ങളെ ക്ക ഭയന്ന് പലായനം ചെയ്തുവെന്നും അപ്പോൾ പരശുരാമൻ സർപ്പങ്ങൾക്ക് കഴിയുവാൻ സർപ്പക്കാവുകൾ നിർമ്മിച്ച് ബ്രഹ്മണരെ തിരികെ കൊടുവന്നുവെന്നും പറയുന്നു. കാവുകളെയും അവയെ ചുറ്റിപ്പറ്റിയുള്ള വിശ്വാസങ്ങളെയും തള്ളിപ്പറയുകയും അതിലൂടെ വിലമതിക്കാനാവാത്ത മൂല്യങ്ങളെയും സാംസ്കാരിക തനിമകളെയും ഉന്മൂലനം ചെയ്യുകയും ചെയ്യുന്ന പ്രവണതയാണ് ഇന്ന് നിലനിൽക്കുന്നത്. കാവുകൾ നമ്മുടെ നാടോടിത്തം നിറഞ്ഞ സാംസ്കാരിക സന്തയുടെ വറ്റാത്ത ഉറവിടങ്ങളാണ്. പല സർപ്പക്കാവുകളിലും സന്താന ലബ്ധിക്കായി ആളുകൾ പൂജ നടത്താറുണ്ട്. ഉരുളി കമഴ്ത്തൽ (മണ്ണാറശാല) തുടങ്ങിയ ചടങ്ങുകൾ നടത്തിപ്പോരുന്നു. ഉർവരതയുടെ പ്രതീകങ്ങൾ എന്ന നിലയിൽ ഇതിന് പ്രത്യേക പ്രാധാന്യമുണ്ട്. ദേവി സങ്കൽപ്പത്തിന്റേയും സ്ത്രീപൂജയുടെയും അംശങ്ങളും ഇതിൽ അന്തർലീനമാണ്.

**ഉർവരതാനുഷ്ഠാനം**

മനുഷ്യോർവരതയും പ്രകൃത്യർവരതയും പരസ്പരം ബന്ധപ്പെട്ടിരിക്കുന്നുവെന്നും ഒന്നിന് മറ്റൊന്നിനെ സ്വാധീനിക്കാൻ കഴിയുമെന്നും പ്രാചീന സമൂഹം വിശ്വസിച്ചിരുന്നു. മണ്ണിന്റേയും മനുഷ്യന്റേയും ഫല സമൃദ്ധിയുടെ ഹേതുകൾ ഒന്നാണെന്നായിരുന്നു അവരുടെ ധാരണ. മനുഷ്യന്റെ ഉൽപ്പാദനക്ഷമതയും കാർഷികോൽപ്പാദനവും അന്യോന്യം ബന്ധപ്പെട്ടു കിടക്കുന്നുവെന്നും സമ്പർക്കത്തിന്റേയോ അനുകരണത്തിന്റേയോ ഫലമായി ഒന്നിന് മറ്റൊന്നിനെ സ്വാധീനിക്കാൻ കഴിയുമെന്നും അവർ വിശ്വസിച്ചു. പ്രകൃതിയുടെ ഉൽപ്പാദന പ്രക്രിയയും മനുഷ്യന്റെ പ്രജനനപരമായ ധർമ്മവും തമ്മിലുള്ള ഉറബന്ധത്തിൽ നിന്നാണ് താന്ത്രികത്തിന്റെ ഉൽപ്പത്തിയെന്നു വിശ്വസിക്കപ്പെടുന്നു.

ഭൂമിയുടെ സന്ധ്യോൽപ്പാദന പ്രക്രിയ സ്ത്രീ ശരീരത്തിന്റെ പ്രജനനക്ഷമതയെ ആശ്രയിച്ചിരിക്കുന്നു എന്നതാണ് പ്രാകൃതമായ വിശ്വാസത്തിന്റെ ഒരു വശം. സ്ത്രീയുടെ ഉൽപ്പാദനക്ഷമത മണ്ണിന്റെ ഉൽപ്പാദനപരമായ കഴിവിനെ ആശ്രയിച്ചിരിക്കുന്നു എന്ന താണിതിന്റെ മറ്റൊരുവശം. പ്രകൃത്യർവരത മനുഷ്യന്റെ ഉൽപ്പാദനക്ഷമതയെ സഹായിക്കുമെന്ന വിശ്വാസത്തിനു ധാരാളം ഉദാഹരണങ്ങൾ കണ്ടാൻ കഴിയും. പുള്ളിമരം ഉർവരതയുടെ പ്രതീകമാണെന്ന വിശ്വാസം പ്രാചീന ജനങ്ങൾക്കിടയിലുണ്ടായിരുന്നു. പുള്ളികൂടി, പുള്ളികാതൽകൊള്ളൽ തുടങ്ങിയ അനുഷ്ഠാനങ്ങൾ ഇതിൽ നിന്നാണ് ഉൽഭവിച്ചത്.

പ്രകൃതിയിലെ വസ്തുക്കളെ ഉർവരതയുടെ പ്രതീകങ്ങളായി കണക്കാക്കിവരുന്ന പതിവ് കേരളത്തിൽ കുറെയൊക്കെ ഇന്നും നിലനിൽക്കുന്നു. കമുകിൻപൂക്കു



ലഭിക്കുന്നവർക്കുവേണ്ടി തുടങ്ങിയവ ഇത്തരത്തിലുള്ള പ്രതീകങ്ങളാണ്. പ്രകൃതിയുമായി താരതമ്യം പ്രാപിക്കാനുള്ള ശ്രമം കേരളത്തിലെ മിക്ക ഉൾവരതാ അനുഷ്ഠാനങ്ങളിലും കാണാം. നിറ, പുത്തരി, ഓണം, തിരുവാതിര, പൂരം, വിഷു തുടങ്ങിയ ഉത്സവങ്ങൾ ഉദാഹരണങ്ങളാണ്. ഉൾവരതാശക്തിയായി കാട്ടുവള്ളികളും ഇലകളും നെൽക്കെട്ടിരും വീട്ടിൽ കൊടുവന്ന് കെട്ടുന്ന ചടങ്ങാണ് നിറം. ഓണം, തിരുവാതിര, പൂരം എന്നിവയിൽ പൂക്കൾ പ്രധാന ഘടകമാണ്. ഓണത്തിന് പൂവിടലും സദ്യയുമാണ് മുഖ്യം. തിരുവാതിരയ്ക്ക് പാതിരാപൂച്ചടൽ പ്രധാന ചടങ്ങാണ്. ഐശ്വര്യത്തിന്റെ അടയാളമായ പൊലുവള്ളികെട്ട് കെട്ടിയ ചെമ്പിൽവേണം പുണെല്ലു പൂശുങ്ങാനും പുണെല്ലരി വയ്ക്കാനും. ഇതാണ് പുത്തിരിയുണന്ന ചടങ്ങ് അനുശാസിക്കുന്നത്. ഉർവ്വരരായനയുടെ ഭാഗമായിട്ടാണ് വിഷു ആചരിക്കുന്നത്. പുതുവർഷപിറവിയായ മേടം ഒന്നിന് പ്രാഭാതത്തിൽ ഐശ്വര്യത്തെ വരവേൽക്കുന്നതിനായി വിഷുക്കണി കാണുന്നു. കൊന്നപ്പൂവ്, ചെമ്പകപ്പൂവ്, കുലമാങ്ങ, നാളികേരം, അടയ്ക്ക, ചക്ക, വെള്ളരി തുടങ്ങിയവയും ധാന്യങ്ങളും കാണുന്ന ചടങ്ങാണിത്. പ്രകൃതിയുമായി വിലയം പ്രാപിക്കാനുള്ള ശ്രമങ്ങളാണ് ഈ അനുഷ്ഠാനങ്ങളിലെല്ലാം കാണുന്നത്.

ഭൂമിയെ അമ്മയായി കണക്കാക്കി വന്ന പ്രാചീനജനത സ്ത്രീയുടെ ധർമ്മങ്ങൾ ഭൂമിക്കുവേണ്ടി വിശ്വസിച്ചു പോന്നു. പഴയ വള്ളുവനാട് പ്രദേശത്ത് ഉച്ചാരവേലകൾ ഇന്നും ദുർലഭമായെങ്കിലും ആചരിച്ചു വരുന്നു. രാം വിളവെടുപ്പ് (കൊയ്ത്ത്) കഴിഞ്ഞാലുള്ള കാലയളവാണ് ഉച്ചാരൽ. ഭൂമി രജസ്വലയാകുന്ന സമയമാണിതെന്നതിനാൽ വർഷകാലം വരെ ഭൂമി വിശ്രമിക്കുന്നുവെന്ന സങ്കല്പമാണ് ഉച്ചാരലിനു പിന്നിലുള്ളത്. വടക്കേ മലബാറിൽ കർക്കിടകമാസത്തിലെ ആദ്യ നാളുകളിൽ മണ്ണ് കിളയ്ക്കുവാൻ പാടില്ലെന്ന വിശ്വാസമുണ്ട്. ബംഗാളിലും ജൂൺ ജൂലൈ മാസങ്ങളിൽ ആദ്യമായി മഴപെയ്യുന്ന കാലത്ത് നിലമുഴുവുകയോ വിതയ്ക്കുകയോ മറ്റ് കാർഷികവൃത്തികളിൽ ഏർപ്പെടുകയോ ചെയ്യരുതെന്ന വിശ്വാസം നിലവിലുണ്ട്. ഈ ഉദാഹരണങ്ങളിൽ നിന്നെല്ലാം വ്യക്തമാകുന്ന വസ്തുത സ്ത്രീയ്ക്ക് ആർത്തവകാലത്ത് കർമ്മങ്ങളിൽ പങ്കെടുക്കുന്നതിന് വിരുദ്ധമായിട്ടുള്ളതാണ്. ഭൂമിയെ അമ്മയായി കണക്കാക്കിയതിനാൽ ആർത്തവകാലത്ത് കർമ്മങ്ങളിൽ പങ്കെടുക്കരുത് എന്ന വിശ്വാസം നിലവിലുണ്ട്.

**പ്രകൃതിയും ശാസ്ത്രത്തിന്റെ മുന്നേറ്റവും.**

ആധുനികവൽക്കരണവും നാഗരീകതയും ശാസ്ത്ര സാങ്കേതിക രംഗത്തായ പുരോഗതി ശരിയായ രീതിയിൽ മനുഷ്യൻ ഉൾക്കൊള്ളാൻ തയ്യാറാവാത്തതിന്റെ ഫലമായി പ്രകൃതിയ്ക്ക് നാശം സംഭവിച്ചു. പരിസ്ഥിതിയെ മാത്രമല്ല നമ്മുടെ നാടോടി സംസ്കാരത്തെയും അഥവാ ജീവിതരീതിയെയെത്തന്നെ തകിടം മറിച്ചുകൊടുക്കുന്ന മനുഷ്യൻ പ്രകൃതിയിൽ നിന്ന് അന്യവൽക്കരിക്കപ്പെടുകൊണ്ടിരിക്കുന്ന കാഴ്ചയാണ് നമുക്ക് കാണാൻ കഴിയുന്നത്. കണ്ണിനും മനസ്സിനും ഹരിതഭംഗിയാൽ കുളിർമ്മ നൽകിയിരുന്ന പ്രകൃതിയ്ക്ക് നാശംവിതയ്ക്കുന്നു മനുഷ്യന്റെ



പ്രവൃത്തികൾ. മനുഷ്യജീവിതത്തിലെ എല്ലാ മേഖലകളിലും പ്രകൃതിയ്ക്ക് അദ്ദേഹ്യമായ ബന്ധം കൽപ്പിക്കപ്പെട്ടിരുന്ന ഒരു കാലം ഉണ്ടായിരുന്നു. (ആചാര വിശ്വാസങ്ങളിലും, ഉൾവരതയിലും, ചികിത്സാ രീതികളിലും). ഇന്നവയെല്ലാം നഷ്ടപ്പെട്ടുകൊണ്ടിരിക്കുന്നു. പ്രകൃതിയുടെ തനിമയെ മുറിവേൽപ്പിക്കുന്ന ഒരു വ്യവസായസംസ്കാരമാണ് നാം പിൻതുടരുന്നത്. ഈ സംസ്കാരത്തിന്റെ ഉൽപ്പന്നങ്ങൾ പകർന്നേകിയ സുഖലോലുപതയിൽ നാം ഭൂമിയെ അഥവാ പ്രകൃതിയെ ചൂഷണം ചെയ്യുന്നു. ശാസ്ത്രസാങ്കേതിക രംഗത്തായ സ്പോടനാത്മകമായ വളർച്ച പ്രകൃതിയെ സ്വന്തം നേട്ടങ്ങൾക്കായി പരമാവധി ചൂഷണം ചെയ്യുക എന്ന മീഥ്യാബോധത്തിലേക്ക് മനുഷ്യനെ നയിച്ചു. പ്രകൃതിവിഭവങ്ങൾക്ക് മേലുള്ള യന്ത്രവൽകൃതമായ ദുർവിനിയോഗമാണ് ഉൽപ്പാദനവർദ്ധനവയായി നമ്മുടെ മുന്നിലെത്തുന്നത് എന്ന യാഥാർത്ഥ്യം മനസ്സിലാക്കാനും അംഗീകരിക്കാനും ഏറെക്കാലം വേണ്ടിവന്നു. “വ്യവസായിക വിപ്ലവം കുപ്പുകുന്നയാക്കി മാറ്റിയ പ്രകൃതിയിൽ മനുഷ്യന്മാർപ്പെടെയുള്ള ഒരു ജീവികളും സ്വാസ്ഥ്യത്തോടെ ജീവിക്കാനാവില്ലെന്ന കുറച്ചു മനുഷ്യരുടെ തിരിച്ചറിവാണ് പരിസ്ഥിതി സംരക്ഷണത്തെ കുറിച്ചുള്ള ചിന്തയ്ക്ക് വഴിയൊരുക്കിയത്”.

**പരിസ്ഥിതി ചിന്തയും സംസ്കാരവും.**

ജീവന്റെയും ജീവിതത്തിന്റെയും സമസ്ത മേഖലകളും ഇന്ന് പരിസ്ഥിതിചിന്തയ്ക്കു വിഷയമാണ്. 20 -ാം നൂറ്റാണ്ടിന്റെ പകുതിക്ക് ശേഷം വളർന്നുവന്ന ഇക്കോളജി എന്ന വിജ്ഞാന ശാഖയുടെ മുഴുവൻ ശാസ്ത്രീയതയും മാനവികതയും പരിസ്ഥിതി ചിന്ത ഉൾക്കൊള്ളുന്നു. അതോടൊപ്പം സമഭാവനയിലും സമത്വത്തിലും അധിഷ്ഠിതമായ ഒരു പുതിയ സമൂഹത്തിന്റെ സൃഷ്ടിക്ക് അനുപേക്ഷണീയമായി കരുതാവുന്ന ഒരു ജനകീയ പ്രത്യയശാസ്ത്രത്തിനു ഭവിയുള്ള അന്വേഷണമായി പരിസ്ഥിതിചിന്ത മാറിക്കൊണ്ടിരിക്കുന്നു.

പരിസ്ഥിതിയെക്കുറിച്ചുള്ള അവബോധം പൂരോഗതിയെക്കുറിച്ചും, മനുഷ്യ സംസ്കൃതിയെക്കുറിച്ചും തികച്ചും മൗലികമായപുതിയൊരു കാഴ്ചപ്പാടിലേക്ക് സമൂഹത്തെ നയിക്കുന്നു. ഭൂമിക്കും ഭൂമിയിലെ എണ്ണമറ്റ മറ്റ് പരാപരങ്ങൾക്കും സംഭവിച്ചുകൊണ്ടിരിക്കുന്ന പരിണാമങ്ങളെക്കുറിച്ചുള്ള അന്വേഷണമാണ് പരിസ്ഥിതിദർശനം ‘ഇക്കോളജിആന്റ് പൊളിറ്റിക്സ്’ എന്ന ഗ്രന്ഥത്തിൽ ആന്ദ്രഗാർസ് നിരീക്ഷിച്ചതുപോലെ മുതലാളിത്തത്തെ തുണെറിഞ്ഞുകൊണ്ട് വ്യക്തിയും സമൂഹവും തമ്മിൽ ആരോഗ്യകരമായ ഒരു പുതുബന്ധത്തിനു വഴിവയ്ക്കുന്ന സാമൂഹികസാമ്പത്തിക സവാസ്കാരിക വിപ്ലവങ്ങളുടെ പ്രതിഫലനമാകണം പരിസ്ഥിതിചിന്ത.

പരിസ്ഥിതിസംരക്ഷണം പലപ്പോഴും വാക്കുകളിൽ മാത്രം ഒതുങ്ങി നിൽക്കുകയാണ്. ഭൂമിയെ രക്ഷിക്കാനുള്ള പ്രണവമന്ത്രമല്ല പരിസ്ഥിതിദർശനം. ജീവന്റെ നിലനിൽപ്പിനുള്ള പ്രാണവായുവാണത്. ഭൂമിയെ ആരും രക്ഷിക്കേതില്ല. പ്രകൃതിയെ



അതിന്റെ കാലത്തിലൂടെയുള്ള പ്രയാണം നിയന്ത്രിച്ചുകൊള്ളും. പ്രശ്നം മനുഷ്യരുടേയും സസ്യപരാചരത്തിന്റേയും നിലനിൽപ്പിന്റേതാണ്. ആധുനിക പരിസ്ഥിതിക പ്രതിസന്ധി നമ്മുടെ ജീവിതത്തെ പരിസ്ഥിതികമായി മാത്രമല്ല ആത്മീയമായും സാംസ്കാരികമായും വിഷയമാക്കിയതിന്റെ പശ്ചാത്തലത്തിലാണ് സാഹിത്യത്തിലും ഹരിതമായൊരു ഭാവുകത്വപരിണാമം സംഭവിക്കുന്നതെന്ന് ജി. മധുസൂദനൻ നിരീക്ഷിക്കുന്നു. സൂര്യനു താഴെയുള്ളതെന്തും ഇന്ന് പരിസ്ഥിതിയുമായി ബന്ധപ്പെടുത്തിയല്ലാതെ ചിന്തിക്കാനാവില്ല. അതിനാൽ തന്നെ പരിസ്ഥിതിശാസ്ത്രം എല്ലാ ശാസ്ത്രങ്ങളുടെയും അടിസ്ഥാന ഭൂമികയായും പരിസ്ഥിതിദർശനം ദർശനങ്ങളുടെ ദർശനമായും പരിണമിക്കുന്നു.

പരിസ്ഥിതി ചിന്ത ഇന്ന് സാഹിത്യത്തിലും സംസ്കാരത്തിലും ശാസ്ത്രത്തിലും പരിത്രത്തിലും എല്ലാം സജീവ സാന്നിധ്യമായി നിലനിന്നു പോരുന്നു. വ്യത്യസ്തമായ കാഴ്ചപാടുകളുടെയും വീക്ഷണഗതികളുടെയും അടിസ്ഥാനത്തിൽ ഓരോരുത്തരും പരിസ്ഥിതി ചിന്തയെ ഉൾക്കൊള്ളുകയും നിർവ്വചിക്കുകയും വിലയിരുത്തപ്പെടുകയും ചെയ്യുന്നു. അതുകൊണ്ട് തന്നെ പരിസ്ഥിതിയെക്കുറിച്ചുള്ള ഏതു പഠനവും പുതിയ കാലഘട്ടത്തിൽ പ്രാധാന്യമർഹിക്കുന്നതുതന്നെയാണ്.

**സഹായഗ്രന്ഥങ്ങൾ**

1. ഏ.കെ.നമ്പ്യാർ, പരിസ്ഥിതിയും ഫോക്ലോറും, (പരിസ്ഥിതിയുടെ രാഷ്ട്രീയം)
2. ജി മധുസൂദനൻ, കഥയും പരിസ്ഥിതിയും



### “നമ്പ്യാരുടെ ഘോഷയാത്ര”

ഡോ. ആർ. അശ്വതി

അസി.പ്രൊഫസർ

മലയാളവിഭാഗം

എൻ.എസ്.എസ്.കോളേജ്

പന്തളം

18-ാം നൂറ്റാണ്ടിൽ പാലക്കാട് ജില്ലയിലെ ലക്കിടിക്കുസമീപമുള്ള കിള്ളിക്കുറിശ്ശിമംഗലത്ത് കലക്കത്ത് ഭവനത്തിലാണ് കുഞ്ചൻനമ്പ്യാർ ജനിച്ചതെന്ന് കരുതുന്നു. അദ്ദേഹത്തിന്റെ ജീവിതകാലം, ജന്മദേശം, നാമധേയം എന്നിവയെ സംബന്ധിച്ച് വ്യത്യസ്ത അഭിപ്രായങ്ങളാണ് സാഹിത്യചരിത്ര പണ്ഡിതന്മാർക്കുള്ളത്. നമ്പ്യാർ തുള്ളൽകൃതികളിൽ ആദരവോടെ സൂചിപ്പിക്കുന്ന ചെമ്പകശ്ശേരിരാജാവ് ദേവനാരായണൻ, തിരുവിതാംകൂർ മഹാരാജാവ് മാർത്താണ്ഡവർമ്മ എന്നിവരുടെ ഭരണകാലം മുൻനിർത്തി കൊല്ലവർഷം 880-മാണ്ടിനിട (എ.ഡി.1705) യ്ക്കാണ് അദ്ദേഹത്തിന്റെ ജീവിതകാലമെന്ന് അനുമാനിക്കാം. ശുകപുരം ജന്മനാടാണെങ്കിലും ദേശസഞ്ചാരംചെയ്ത് നമ്പ്യാർ അമ്പലപ്പുഴയിലും തകഴിയിലും താമസിച്ചിരുന്നതായും പിന്നീട് മാർത്താണ്ഡവർമ്മ മഹാരാജാവിന്റെ ആശ്രിതനായി കുറച്ചുകാലം തിരുവനന്തപുരത്ത് കഴിഞ്ഞതിനുശേഷം 940-ാംമാണ്ടോടെ അമ്പലപ്പുഴയിലേക്ക് മടങ്ങിയതായും രേഖകളുണ്ട്. പേവിഷബാധയേറ്റാണ് അദ്ദേഹത്തിന്റെ അന്ത്യമെന്ന് പറയപ്പെടുന്നു.

#### തുള്ളൽ - ഉത്പത്തി: ഐതിഹ്യവും വസ്തുതയും

അമ്പലപ്പുഴ ക്ഷേത്രത്തിൽ ചാക്യാർ, കുത്ത് അവതരിപ്പിക്കുമ്പോൾ മിഴാവ് കൊട്ടിയിരുന്നത് കുഞ്ചൻനമ്പ്യാരായിരുന്നു. ഒരിക്കൽ, ചാക്യാർ ശ്ലോകം വ്യാഖ്യാനിക്കുന്നതിനിടയിൽ നമ്പ്യാർ ഉറങ്ങിപ്പോവുകയും ക്ഷുഭിതനായ ചാക്യാർ, അദ്ദേഹത്തെ ജനമധ്യത്തിൽ പരിഹസിക്കുകയും ചെയ്തു. അവമാന്തിതനായ നമ്പ്യാർ ഒറ്റരാത്രികൊണ്ട് ‘തുള്ളൽ’ എന്ന കലാരൂപമുണ്ടാക്കി അവതിരിപ്പിച്ചു. ഇതാണ് ഐതിഹ്യം. ‘കല്ല്യാണസൗഗന്ധിക’മെന്ന ആദ്യ തുള്ളൽക്കഥ രൂപപ്പെടാനുള്ള ഒരു കാരണമായി മാത്രം ഈ സംഭവത്തെ കരുതാം. കുഞ്ചൻനമ്പ്യാരുടെ കാലത്തും പിൻകാലത്തുമുണ്ടായ തുള്ളൽകൃതികളെല്ലാം ഒരേ മാതൃകയിൽ രൂപപ്പെട്ടു വന്നിട്ടുള്ളതുകൊണ്ടും, അതുമായി ബന്ധപ്പെട്ട് മറ്റൊരു പേര് പരാമർശിക്കപ്പെട്ടു കാണാത്തതിനാലും തുള്ളൽപ്രസ്ഥാനത്തിന്റെ സ്രഷ്ടാവ് കുഞ്ചൻനമ്പ്യാരാണെന്നുള്ള വസ്തുത സ്വീകാര്യമാണ്.

#### തുള്ളൽ - ജനകീയകലാരൂപം

നൃത്തം, ഗീതം, വാദ്യം എന്നീ തൗര്യത്രികം ചേർന്ന ഏകാംഗദ്യശ്യകലാരൂപമാണ് തുള്ളൽ. കഥകളി, ചാക്യാർകുത്ത് തുടങ്ങിയ ക്ലാസ്സിക കലാരൂപങ്ങളും പടയണി പോലെയുള്ള നാടൻ നൃത്തരീതികളും ഈ കലാരൂപത്തെ വളരെയധികം സാധിനിച്ചിട്ടുണ്ട്. ഓട്ടൻ, ശീതകൻ, പറയൻ എന്നിങ്ങനെ തുള്ളൽ മുന്ന് തരത്തിലുണ്ട്. ആംഗികം (അംഗങ്ങൾ കൊണ്ടുള്ള അഭിനയം), വാചികം (വാക്കുകൾ കൊണ്ടുള്ള അഭിനയം), ആഹാര്യം (വേഷവിധാനം), സാത്വികം (വികാര പ്രകടനം) എന്നിങ്ങനെ നാല് അഭിനയവിധങ്ങൾ പ്രസക്തമാണെങ്കിലും തുള്ളൽ സജീവമാക്കുന്ന പ്രധാനഘടകം വാചികാഭിനയമാണ്.



ഓട്ടൻതുളളിന്റെ പ്രാഗ്ഭൂപം പടയണി, വേലകളി, കോലംതുളളൽ, കണിയാൻതുളളൽ തുടങ്ങിയ നാടൻ കലാരൂപങ്ങളിൽ കണ്ടെത്താം. ആട്ടവും പാട്ടും കുത്തും കളിയും കൊണ്ടുസമ്പന്നമായ ഒരു നാടൻ (ഫോക്) പാരമ്പര്യം കേരളത്തിനുണ്ട്. തുളളലിലെ വേഷം, ഭാഷ, അവതരണം, മേളം തുടങ്ങിയവയിലെ നാടൻ വിധേയത്വം പരിഗണിക്കുമ്പോൾ തന്നെ അഭിനയം, സാമൂഹികവിമർശനം, നർമ്മം, ഇതിഹാസ കഥാഖ്യാനം, സംസ്കൃതശ്ലോകഖ്യാനം എന്നിങ്ങനെ ചാക്യാർകൃത്തിനോടുള്ള സാരൂപ്യവും അവഗണിക്കാവുന്നതല്ല.

സാവർണ്ണ്യത്തിന്റെ അകത്തളങ്ങളിൽ നിന്ന് കുഞ്ഞെന്നകലയെ അനുനയിപ്പിച്ച് സാധാരണക്കാരന്റെ അമ്പലപ്പറമ്പിലേക്ക് ഇറക്കിക്കൊണ്ടുവരാൻ കുഞ്ചൻനമ്പ്യാർക്കു സാധിച്ചു. രംഗസജീകരണത്തിലെ ലാളിത്യവും അലങ്കാരങ്ങളിലെ നാടോടിവഴക്കവും ഹാസ്യരസം സൃഷ്ടിക്കുന്ന സ്വയംവിമർശനത്തിലെ മനഃസംസ്കരണവും സാധാരണക്കാരന്റെ സ്വന്തം ഭാഷയും, തുളളലെന്ന ദൃശ്യകലയെ കൂടുതൽ ജനകീയമാക്കി.

**വേഷവും അവതരണവും**

**ഓട്ടൻതുളളൽ**

‘ഓട്ടൻ’ എന്ന പദത്തിന് വേഗത്തിലുള്ളത്, ഓടിക്കുന്നത് (ബാധയൊഴിക്കുന്നത്) എന്നെല്ലാം അർത്ഥമുണ്ട്. ഏറ്റവും വേഗത്തിലുള്ള (ദ്രുതതാളം) താളമാണ് ഓട്ടൻതുളളലിന് സ്വീകരിക്കുക. തരംഗിണി വൃത്തത്തിനാണ് പ്രാധാന്യമെങ്കിലും അർദ്ധകേക, ഹംസപ്പുതം, വക്രതം തുടങ്ങിയവയും ചിലപ്പോൾ പ്രയോഗിച്ചുകാണാം. തമിഴിലെ പാട്ടുസമ്പ്രദായമായ (ചെപ്പൽ, അകവൽ, തുളളൽ, തുങ്കൽ) അകവലിനോട് (നിർത്താതെ പാടുന്നത്) അടുത്ത ബന്ധമാണ് തുളളലിനുള്ളത്. തമിഴിലെ ‘കലിവിരുത്തം’ തന്നെയാണ് മലയാളത്തിൽ ഓട്ടൻതുളളലിന് ഉപയോഗിക്കുന്ന തരംഗിണിവൃത്തം. സന്ധ്യാനന്തരമാണ് അവതരണം. ശിരസ്സിൽ ഉറുമാൽ കൊണ്ട് കെട്ടി അർദ്ധവൃത്താകൃതിയിലുള്ള കിരീടം ചൂടും. മുഖത്ത് പച്ച മനയോല തേച്ച് ചൂട്ടികുത്തും. കണ്ണും പുരികവും വാലിട്ട് നീട്ടിയെഴുതും. നെറ്റിയിൽ തിലകം ചാർത്തും. കണ്ണു ചുവക്കാൻ ചുണ്ടപ്പുവിടും. കുരലാരം, കഴുത്താരം, ഹസ്തകടകം, തോൾപ്പട്ട്, കങ്കണം എന്നിവ ധരിക്കും. അരയിൽ ചുവന്ന പട്ടുടുത്ത് ചുവന്നകരയുള്ള വീതികുറഞ്ഞ കച്ച മുട്ടുവരെ തൊറിഞ്ഞിട്ട് ശരമുണ്ടും മുന്തിയും ധരിക്കും. കാലിൽ കച്ചമണിക്കെട്ടും. നടൻ, കൈമണിക്കാരൻ, മദ്ദളക്കാരൻ തുടങ്ങിയവർ ചേർന്നാണ് തുളളൽ അവതരിപ്പിക്കുക. മറ്റ് ദൃശ്യകലകൾക്കെന്നപോലെ സജ്ജമാക്കിയ രംഗവേദി തുളളലിന് ആവശ്യമില്ല. പായയോ, പനമ്പോ നിലത്തുവിരിച്ച് അതിന്മേലാണ് തുളളുക. നടൻ പാടുകയും അഭിനയിക്കുകയും ചെയ്യും. പാടുന്നത് കൈമണിക്കാരൻ ഏറ്റുപാടുന്നു. കഥകളിയിലെപ്പോലെ മുദ്രകൾ വിസ്തരിച്ച് കളിക്കാറില്ല. ഗണപതി വന്ദനം, മൂന്നരങ്ങ് എന്നിവയാണ് പ്രധാനചടങ്ങ്. ഇഷ്ടദേവതാസ്തുതിയും ഗുരുവന്ദനവും കഴിഞ്ഞ് കഥ തുടങ്ങും. തുളളലിൽ ഫലശ്രുതി പാടിയാണ് അവതരണം അവസാനിപ്പിക്കുക.



(നാടകത്തിലത് ഭരതവാക്യവും കഥകളിയിൽ ധനാശിയുമാണ്.) സൂക്ഷ്മമാംശങ്ങളിൽ ചില വ്യത്യാസങ്ങൾ കാണാമെങ്കിലും മൂന്നുതരം തുള്ളലുകളുടെയും ചടങ്ങുകൾ സമാനമാണ്.

**പറയൻതുള്ളൽ**

പേരു സൂചിപ്പിക്കുന്നതുപോലെ പാക്കനാരുടെ വംശത്തിൽ പിറന്നവന്റെ (പറയന്റെ) അഭിനയപ്പഴമയുടെ സാരാംശങ്ങളെ പരിഷ്കരിച്ചതാവാം പറയൻതുള്ളലെന്ന് അഭിപ്രായമുണ്ട്. നടൻ നാഗഹണാകൃതിയിലുള്ള കിരീടം ധരിക്കും. മുഖത്ത് തേപ്പും മിനുക്കുമില്ല. പകരം ഭസ്മം പൂശും. വാലിട്ട് കണ്ണെഴുതും. കച്ചകെട്ടിനുപകരം ചുവന്നപട്ടം തൊങ്ങലുമാണ് ധരിക്കുക. കച്ചമണിയും ചിലമ്പും വലത്തേക്കാലിൽ അണിയുന്നു. കഴുത്തിൽ രൂദ്രാക്ഷമാല ചാർത്തും. അപരാഹ്ണത്തിലവതരിപ്പിക്കേണ്ട തുള്ളലാണിത്. പതിഞ്ഞ മട്ടിലുള്ള ശീലുകളാണ് പറയൻതുള്ളലിൽ കാണാനാവുക. മല്ലികയും വക്രവുമാണ് ഉപയോഗിക്കാറുള്ള വൃത്തങ്ങൾ.

**ശീതങ്കൻ തുള്ളൽ**

ശീതങ്കൻ തുള്ളൽ പുലയജാതിക്കാരുടെ പഴയ നൃത്തസമ്പ്രദായത്തെ കലാത്മകമായി നമ്പ്യാർ പരിഷ്കരിച്ചവതരിപ്പിച്ചതാവുമെന്ന് ഊഹിക്കുന്നു. കാകളിയും കളകാഞ്ചിയും കൃശമദ്ധ്യയുമാണ് പ്രധാനവൃത്തങ്ങൾ. മദ്ധ്യഗതിയിൽ (മന്ദഗതിയിലെന്നും) ഉള്ള ശീലുകളാണിതിൽ. അവതരണത്തിന് നടൻ കിരീടം ഉപയോഗിക്കാറില്ല. തലയിൽ കറുത്ത ഉറുമാൽ കെട്ടി വെളുത്ത വസ്ത്രംകൊണ്ട് കൊണ്ട കെട്ടും. അതിൽ കുരുത്തോല മാല ചാർത്തും, കുരുത്തോലകൊണ്ടുള്ള ആഭരണങ്ങളാണണിയുന്നത്. മുഖത്ത് തേപ്പും മിനുക്കുമില്ല. കണ്ണും പൂരികവുമെഴുതി വെളുത്ത പൊട്ട് തൊടും. നെറ്റിയിൽ തലപ്പാവ്, മാറിൽ മെയ്പ്പാവ്, കൈയിൽ കൈത്താമര എന്നിങ്ങനെ കുരുത്തോലച്ചമയങ്ങളണിയും. കച്ചമണിയും ചിലമ്പും രണ്ടുകാലിലുമുണ്ട്. ഉടുത്തുകെട്ട് ഓട്ടൻതുള്ളലിന് സമാനമാണ്.

**കൃതികൾ**

അറുപതോളം തുള്ളൽകൃതികൾ (17-ശീതങ്കൻ), (30-ഓട്ടൻ), (13-പറയൻ), കുമ്പൻനമ്പ്യാരുടേതായി കണക്കാക്കുന്നു. കല്ല്യാണസൗഗന്ധികം, കിരാതം, ഘോഷയാത്ര, സ്യമന്തകം, ഹരിണീസ്വയംവരം, സഭാപ്രവേശം, ധ്രുവചരിതം മുതലായവയാണ് പ്രധാനപ്പെട്ടവ. ‘ഘോഷയാത്ര’ മികച്ച ഓട്ടൻതുള്ളലിനും ‘ഹരിണീസ്വയംവരം’ ശീതങ്കൻതുള്ളലിനും ‘സഭാപ്രവേശം’ പറയൻതുള്ളലിനും ഉദാഹരണങ്ങളാണ്. കൂടാതെ ശ്രീകൃഷ്ണചരിതം മണിപ്രവാളം, നളചരിതം കിളിപ്പാട്ട്, പഞ്ചതന്ത്രം കിളിപ്പാട്ട്, ശിവപുരാണം, ഏകാദശീമാഹാത്മ്യം, ചാണക്യസൂത്രം കിളിപ്പാട്ട്, വിഷ്ണുഗീതാഹംസപ്പാട്ട്, ഭാഗവതം ഇരുപത്തിനാലുവൃത്തം, പതിനാലുവൃത്തം തുടങ്ങിയ കൃതികളും കുമ്പൻനമ്പ്യാരുടേതാണെന്ന് അഭിപ്രായമുണ്ട്.





**സാഹിത്യരമം**

നമ്പ്യാർക്കവിതകളിൽ അദ്ദേഹം ജീവിച്ചകാലത്തിന്റെ സാമൂഹിക-സാംസ്കാരിക-രാഷ്ട്രീയചരിത്രം കാപട്യരഹിതമായി ഒരുവോളം വായിച്ചെടുക്കാം. കവിതയിൽ പ്രയോഗിച്ചിട്ടുള്ള ഫലിതവും വിമർശനവും ചാക്യാർപാരമ്പര്യത്തിന്റെ തിരുശേഷിപ്പുകളായിരുന്നുവെങ്കിലും അതുണ്ടാക്കിയ സാമൂഹികവിപ്ലവം, പൊതുജീവിതത്തിന്റെ മനഃശാസ്ത്രവൈകല്യങ്ങളെ ഫലപ്രദമായി ചികിത്സിക്കുന്ന തരത്തിലുള്ളതായിരുന്നു. പാഠകം, കൂത്ത്, കുടിയാട്ടം, കഥകളി തുടങ്ങി സംസ്കൃത കലാവതരണങ്ങൾ പരിപോഷിപ്പിച്ച വിദഗ്ദ്ധസംഘങ്ങളെയും പ്രാദേശിക കലാസാദകരായ സാമാന്യജനങ്ങളെയും തൃപ്തിപ്പെടുത്തുകയെന്ന കലാപരമായ വലിയ ഉത്തരവാദിത്തമായിരുന്നു നമ്പ്യാർക്ക് ഏറ്റെടുക്കേണ്ടിവന്നത്. അതൊരിക്കലും ഒറ്റരാത്രിയുടെ സമയസാധ്യതകളിൽ സംഭവിച്ച സിദ്ധിവിശേഷമായിരുന്നില്ല.

ഇതിഹാസങ്ങളിൽ നിന്നെടുത്ത പരിചിതമായ ഇതിവൃത്തങ്ങളും, കഥ, കഥാപാത്രങ്ങൾ, ഭാഷ, സംഭാഷണം, നർമ്മം, വിമർശനം തുടങ്ങിയവയിലെല്ലാം ഔചിത്യപൂർവ്വം സന്നിവേശിപ്പിച്ച അകൃത്രിമമായ കേരളീയതയും, നിഷ്പക്ഷതയും, കവിതയിൽ നമ്പ്യാർ മനഃപൂർവ്വംവരുത്തിയ ആർജ്ജവത്വവും കാലോചിതമായി പരിഷ്കരിക്കേണ്ടിയിരുന്ന കാവ്യധർമ്മത്തിന്റെ ജീവിതപാഠങ്ങളായി പരിണമിക്കുക യാണുണ്ടായത്. അവിടെ

“ഒരുത്തർക്കും ലഘുത്വത്തെ വരുത്തുവാൻ മോഹമില്ല  
ഒരുത്തർക്കും ഹിതമായി പറവാന്നും ഭാവമില്ല”

(പഞ്ചേന്ദ്രോപാഖ്യാനം) എന്ന മട്ടിൽ നമ്പ്യാർ കഥ പറഞ്ഞു തുടങ്ങി. അതാകട്ടേ,

“ഉള്ളിൽ കപടതയുള്ള ജനങ്ങളുടെ ഭേദം  
വിരുതം നിഷ്ഫലമാക്കാം”

(സത്യംസ്വയംവരം) എന്ന നിശിതവിമർശനപദ്ധതിയുമായിരുന്നു. അധികാര പ്രമത്തരായ രാജാക്കന്മാരും അവരുടെ സ്തുതിപാഠകരും വിപ്രൻമാരും നായൻമാരും നമ്പ്യാന്മാരും പട്ടൻമാരും വൈദ്യൻമാരും ജ്യോത്സ്യന്മാരും പാദസേവകരായ ഭൃത്യന്മാരും ഭീരുക്കളായ സൈനികരും ആണും പെണ്ണും കുട്ടിയും പട്ടിയും പൂലിയും എലിയും പൂച്ചയും എന്നുവേണ്ട വർഗ്ഗവർണ്ണലിംഗാലിംഗഭേദമന്യേ സർവജീവജാലങ്ങളും അന്ന് സാമൂഹിക പ്രതിബദ്ധമായ നർമ്മത്തിന്റെ കൂരമ്പേറ്റ് നവീകരിക്കാൻ ബാധ്യസ്ഥരായിരുന്നു. ‘വടിവിയന്ന ചാരുകേരള ഭാഷ’യാണ് നമ്പ്യാരുടെ തുള്ളലിൽ കാണാൻ സാധിക്കുന്നത്. അത് ‘ഭാഷയേറി വരുന്ന നല്ല മണിപ്രവാള’ മാണെങ്കിൽ അത്രയും നന്നെന്ന് അദ്ദേഹം കരുതുന്നു.

“ഭടജനങ്ങളുടെ സഭയിലുള്ളൊരുപടയണിക്കിഹ ചേരുവാൻ  
വടിവിയന്നൊരു ചാരുകേരള ഭാഷതന്നെ ചിതം വരു  
കടുപടെപ്പുകറിനസംസ്കൃതവികടകുകുകവീകേറിയാൽ



ഭടജനങ്ങൾ ധരിക്കയില്ല; തിരിക്കുമൊക്കെയുമേറ്റുടൻ;  
 ഭാഷയേറിവരുന്ന നല്ല മണിപ്രവാളമതെങ്കിലോ  
 ഭൂഷണം വരുവാനുമില്ല; വിശേഷ ഭൂഷണമായ്വരും;  
 വേഷസംഗതിയോടു ചേർന്നൊരു ഭാഷ വേണമതെങ്കിലേ  
 ശേഷമുള്ള ജനത്തിനും പരിതോഷമെന്നു വരുദ്യുൾ.”  
 എന്ന് കാവ്യഭാഷയെക്കുറിച്ചുള്ള അഭിപ്രായം ‘സഭാപ്രവേശ’ത്തിലും

“ചിരിക്കുന്ന കഥകേട്ടാലിരിക്കുമായതല്ലെങ്കിൽ  
 ത്തിരിക്കുമങ്ങനെ ഭാവിച്ചിരിക്കുന്ന ഭടന്മാരെ  
 ചിരിക്കാതെ രസിപ്പിക്കാനൊരിക്കലുമെളുതല്ല-  
 ന്നരിക്കുന്നെങ്കിലമ്മാത്രമുരയ്ക്കാമെന്നതേ വേണ്ടൂ”

എന്നുള്ള കാവ്യരസജ്ഞാനതത്ത്വം ‘കുംഭകർണ്ണവയ’ത്തിലും നമ്പ്യാർ വ്യക്തമാക്കുന്നുണ്ട്. കഥാപാത്രങ്ങളുടെ സ്വഭാവവും സംസ്കാരവുമനുസരിച്ച് അവരുടെ സംഭാഷണങ്ങൾ രൂപപ്പെടുത്തുന്നതിലും ഭാഷ പരുവപ്പെടുത്തുന്നതിലും നമ്പ്യാർ ബദ്ധശ്രദ്ധനായിരുന്നു.

പഴഞ്ചൊല്ലുകളും ലോകോക്തികളും സന്ദർഭാനുസരണം പ്രയോഗിക്കുന്ന നമ്പ്യാർക്കവിതകളിൽ ദീർഘവർണ്ണനാസന്ദർഭങ്ങളും പ്രാസനിഷ്കർഷയും ശബ്ദാലങ്കാര പ്രിയവും സുലഭമായി കാണാം. അധികാരമദാന്ധത, അസൂയ, പൊങ്ങച്ചം, ദാരിദ്ര്യം, ഉപജാപങ്ങൾ, അസംബന്ധാരോപങ്ങൾ, ധർമ്മവിലോപം, സ്വാർത്ഥത, പരദ്രോഹാഭിനിവേശം എന്നിങ്ങനെ കേരളത്തിൽ അന്നുണ്ടായിരുന്ന അപചയാവസ്ഥകളുടെ നേർസാക്ഷ്യങ്ങളാണ് ‘ഘോഷയാത്രയുടെ’ പ്രമേയം. കുഞ്ചൻനമ്പ്യാരുടെ ഉള്ളിലുള്ള ആദർശലോകത്തിന്റെ സാങ്കല്പികാവതരണങ്ങൾ പലപ്പോഴും യഥാർത്ഥലോകത്തിന്റെ വൈരുദ്ധ്യങ്ങളെ പരിഹാസപൂർവ്വം പൊളിച്ചെഴുതുകയുണ്ടായി.

**ഘോഷയാത്ര-മഹാഭാരതകഥ**

വ്യാസ മഹാഭാരതം വനപർവത്തിലെ ഉപകഥാഭാഗമായ ഘോഷയാത്രാപർവത്തിൽ വിവരിക്കുന്ന പുരാണകഥാസന്ദർഭമാണ് കുഞ്ചൻനമ്പ്യാർ ‘ഘോഷയാത്ര’ എന്ന ഓട്ടൻതുളളലിന് തെരഞ്ഞെടുത്ത വിഷയം.

വനവാസകാലത്ത് പാണ്ഡവർ ദൈതവനത്തിലുണ്ടെന്ന വിവരം സമംഗൻ എന്ന ദൂതൻ വഴി ദുര്യോധനനറിയിുന്നു. വനത്തിലെത്തി തന്റെ രാജപ്രതാപം കാട്ടി പാണ്ഡവരെ അവഹേളിക്കണമെന്ന് ദുര്യോധനാദികൾ നിശ്ചയിക്കുന്നു. ദൈതവനത്തിൽ സൈന്യാഹാരം നടത്തുന്ന ഗോക്കളുടെയും ഗോപാലന്മാരുടെയും (ഘോഷ) കണക്കുകൾ തിട്ടപ്പെടുത്തി ക്ഷേമമന്വേഷിക്കുക എന്ന വ്യാജേന സഹോദരന്മാർ, ഭാര്യമാർ, കർണ്ണൻ, ശകുനി, മറ്റ് സൈന്യങ്ങൾ മുതലായവരോടുകൂടി ദുര്യോധനൻ ഘോഷയാത്രയായി വനത്തിലേക്കു പുറപ്പെട്ടു. എണ്ണായിരം തേരുകളും മുപ്പതിനായിരം ആനകളും ഒമ്പതിനായിരം കുതിരകളും



അനേകായിരം കാലാളുകളും അവരെ അകമ്പടി സേവിച്ചു. കച്ചവടക്കാരും സ്തുതിപാഠകന്മാരും നായാട്ടുകാരും വേശ്യകളും അവരുടെ കൂട്ടത്തിലുണ്ടായിരുന്നു.

ദൈവതവനസരസ്സിന്റെ തീരത്ത് പാണ്ഡവരുടെ താൽക്കാലികാശ്രമത്തിന് സമീപം ദുര്യോധനന്റെ നിർദ്ദേശമനുസരിച്ച് ഭൃത്യന്മാർ ക്രീഡാഗൃഹങ്ങൾ നിർമ്മിച്ചു. എന്നാൽ, തടാകത്തിൽ കുളിക്കാനിറങ്ങിയ അവരെ അവിടെ താമസിച്ചുവന്ന ഗന്ധർവ സംഘം തടഞ്ഞു. പ്രകോപിതനായ കൗരവരാജാവും ഗന്ധർവരാജാവായ ചിത്രസേനനും തമ്മിൽ ഘോരയുദ്ധം നടക്കുകയും ഒടുവിൽ കൗരവാദികളെയും കർണനെയും ഗന്ധർവ സംഘം ബന്ധനത്തിലാക്കുകയും ചെയ്തു. വിവരമറിഞ്ഞ ധർമ്മപുത്രരുടെ നിർദ്ദേശപ്രകാരം അർജ്ജുനൻ കൗരവരെ മോചിപ്പിക്കുന്നു. സ്വയംകൃതാനർത്ഥത്താൽ കുനിഞ്ഞ ശിരസ്സും തകർന്ന മനസ്സുമായ് അനുചരവൃന്ദത്തോടൊപ്പം അവർ ഹസ്തിനപുരിയിലേക്ക് തിരിച്ചുപോകുന്നു. ഇതാണ് മഹാഭാരതകഥ.

**ഘോഷയാത്ര-തുളളലിന്റെ ഇതിവൃത്തം**

മഹാഭാരതകഥയിൽ കലാരത്നകമായ ചില കുട്ടിച്ചേർക്കലുകൾ സന്ദർഭോചിതമായി അവതരിപ്പിക്കുന്നുണ്ട് കൃഷ്ണൻനമ്പ്യാർ. ഇഷ്ടദേവതാസ്തുതിക്കും ഗുരുവന്ദനത്തിനും ശേഷം കഥ തുടങ്ങുന്നു. ‘ഘോഷയാത്രയിൽ’ സമത്വസുന്ദരമായ സമൂഹം എന്ന മാനവികാശയത്തെ സ്പഷ്ടീകരിക്കാൻ കേരളംവാണ ‘മഹാബലി’ സങ്കല്പം പോലെ ‘ഉലകുടപെരുമാൾ’ എന്ന രാജാധികാരത്തിന്റെ സാത്വികമായ അപരഭാവത്തെ കൃഷ്ണൻനമ്പ്യാർ അവതരിപ്പിക്കുന്നു. അദ്ദേഹം പ്രജാക്ഷേമതൽപ്പരനായ രാജാവായിരുന്നു. ഒരിക്കൽ തന്റെ മാതൃലന്മാരെ വധിച്ച മധുരരാജാവിനോട് യുദ്ധം പ്രഖ്യാപിക്കുവാൻ മന്ത്രിമാരോട് അദ്ദേഹം നിർദ്ദേശിച്ചു. ശത്രുവിനോട് പകരം ചോദിക്കുന്നത് ധീരമായ പ്രവൃത്തിയാണെങ്കിലും കൗരവന്മാരുടെ കഥയോർമ്മിപ്പിച്ചുകൊണ്ട് അതൊരു സാഹസ്യപ്രവൃത്തിയായി പരിണമിക്കരുതെന്ന് വ്യഭനായ ഒരു മന്ത്രി സാൻദർഭികമായി സൂചിപ്പിച്ചു. എന്നാൽ കൗരവന്മാരുടെ ‘അക്കഥ’ കേട്ടിട്ടില്ലാത്ത ഉലകുടപെരുമാൾ അത് വിവരിച്ചുകേൾക്കുവാൻ താൽപര്യം പ്രകടിപ്പിച്ചു. മന്ത്രി ‘ഘോഷയാത്രയുടെ’ കഥ വിസ്മയിച്ച് പ്രതിപാദിക്കുന്നു.

വനത്തിൽ പാണ്ഡവരുടെയും അവരിൽത്തന്നെ വിശന്നു വലഞ്ഞ് പരിക്ഷീണനായി നടക്കുന്ന ഭീമന്റെയും ദൈന്യകഥകൾ അറിഞ്ഞുവരാൻ പരദ്രോഹതൽപ്പരനായ ദുര്യോധനൻ ഒരു ‘ഓട്ടനെ’ (ദൈവികതയുള്ള ദുതൻ/വേഗത്തിൽ കാര്യങ്ങൾ ഗ്രഹിച്ച് തിരിച്ചുവരുന്നവൻ) കാട്ടിലയയ്ക്കുവാൻ നിർദ്ദേശിച്ചു. അപ്രകാരം കർണ്ണൻ നിയോഗിച്ച ഓട്ടൻ ദൈവതവനത്തിൽ ഈശ്വരകൃപയാൽ ‘ദൈവതേരസുഖരസികൻമാരായ്’ വാഴുന്ന പാണ്ഡവരെ കണ്ടെത്തിയ വിവരം ദുര്യോധനനെ വർണ്ണിച്ചുകേൾപ്പിച്ചു. പതിനൊന്നുവത്സരം കാട്ടിൽകഴിഞ്ഞ അവരുടെ വനവാസകാലവും അവസാനിക്കാറായിരിക്കുന്നു. വിവരമറിഞ്ഞ് ദേഷ്യംപുണ്ടുകയർത്ത കൗരവരാജാവിനെ മാതൃലനായ ശകുനിയും കർണനും സമാശ്വസിപ്പിക്കുന്നതോടൊപ്പം



ഭാവി പരിപാടികൾ ആസൂത്രണം ചെയ്ത് അനുനയിപ്പിക്കുന്നതുമാണ് പാഠഭാഗം.

പാണ്ഡവർ തിരിച്ചുവന്നാൽ വീണ്ടുമവരെ ഒരിരുപതുവർഷം കൂടി കാട്ടിലയയ്ക്കുകയാണ് വേണ്ടതെന്നും അതിനുള്ള വഴികൾ കണ്ടെത്തണമെന്നും അവർ നിശ്ചയിക്കുന്നു. പിന്നീട് പാർത്ഥന്മാരെ തങ്ങളുടെ വിഭവശേഷി കാട്ടുന്നതിനായി പടകൂട്ടി ഘോഷയാത്രയായി കാടകം പുകുന്നു. കൗരവ മഹാസംഘം വനത്തിൽ പ്രവേശിച്ചപ്പോൾ ഗന്ധർവന്മാർ കാമിനിമാരുമൊത്ത് ജലക്രീഡ നടത്തുന്ന സമയമായിരുന്നു. പാണ്ഡവരുടെ ആ നീർച്ചോലയിൽ 'നഞ്ചു' കലക്കുവാൻ ദുര്യോധനന്റെ നിർദ്ദേശപ്രകാരം ഭൃത്യന്മാർ പുറപ്പെട്ടു. അവരുടെ സംസ്കാരശൂന്യമായ പ്രവൃത്തിയെ ഗന്ധർവരാജാവ് ചിത്രസേനൻ ഭീരുത്വത്തിന്റെയും കാപട്യത്തിന്റെയും വഞ്ചനയുടെയും നിദർശനമായി ചിത്രീകരിച്ച് പരിഹസിച്ചു. വാഗ്ധൂഷം ഘോരമായ ആയോധന യുദ്ധമായ് പരിണമിക്കുകയും ഒടുവിൽ ചിത്രസേനൻ കൗരവരെയും സൈന്യസന്നാഹങ്ങളെയും ബന്ധനത്തിലാക്കുകയും ചെയ്തു. നിവൃത്തികേടിന്റെ പാരമ്യത്തിൽ നിന്ദ്യരായ അവർ ശത്രുപക്ഷത്തുള്ള പാണ്ഡവ സഹോദരങ്ങളെ വിളിച്ച് അഭയമിരക്കുന്നു. ആദ്യം വിമുഖത പ്രകടിപ്പിച്ചുവെങ്കിലും പിന്നീട് ധർമ്മപുത്രരുടെ നിർബന്ധത്തിനുവഴങ്ങി ഭീമനും അർജ്ജുനനും കൂടി കൗരവവൃന്ദത്തെ മോചിപ്പിച്ചു. ഗന്ധർവരാജാവായ ചിത്രസേനൻ അർജ്ജുനന്റെ സുഹൃത്തായിരുന്നു. അപഹാസ്യരായി ഒടുവിൽ ദുര്യോധനാദികൾ കൊട്ടാരത്തിലേക്കു മടങ്ങുന്നു. ഈ കഥാസന്ദർഭത്തെ തനി കേരളീയമായ പശ്ചാത്തലത്തിൽ ഹാസ്യാത്മകമായി നമ്പ്യാർ അവതരിപ്പിക്കുന്നു.

**ഘോഷയാത്ര-സാമാന്യ പരിചയം**

മഹാവൈഷമ്യമാണെങ്കിലും ഭാഷാകവിത രചിക്കുകയാണ് തന്റെ ഉദ്ദേശ്യമെന്ന് കവിതയുടെ ദോഷം മാത്രം കണ്ടെത്തി വിമർശിക്കുന്നവരെ ഉദ്ദേശിച്ച് 'ഘോഷയാത്ര'യുടെ ആദ്യഭാഗത്ത് നമ്പ്യാർ സൂചിപ്പിക്കുന്നു. 'ഗുണഗണമേറിനപുരചിടയുടയോനെ' (ശിവൻ) സ്തുതിച്ച്, ഗുരുവന്ദനവും നടത്തി തുള്ളൽ തുടങ്ങുന്നു. 'ഘോഷയാത്ര' എഴുതുന്നകാലത്ത് അദ്ദേഹം ചെമ്പകശ്ശേരിരാജാവിന്റെ ആശ്രിതനായി കഴിയുകയായിരുന്നു. അതുകൊണ്ട് 'ധരണീസുരകുലമകുടമഹാമണിയായ' അദ്ദേഹത്തെ സ്മരിക്കാനും മറക്കുന്നില്ല. 'ഉലകുടപെരുമാൾ' എന്ന ആദർശരാജസങ്കല്പത്തിന് ആരോപിച്ച എല്ലാഗുണഗണങ്ങളും മഹത്വവും കുഞ്ചൻനമ്പ്യാർ ചെമ്പകശ്ശേരിരാജാവിലും ദർശിക്കുന്നു. ശുകപുരം വാണരുളുന്ന ഈശനും, തകഴിയിലെ ഹരിഹരസ്വതനും മാത്തൂർഭഗവതിയും കവിതയുടെ ആത്മീയ ചോദനകളാകുന്നു. ഉലകുടപെരുമാളിന്റെ കഥാശ്രവണമെന്ന മട്ടിലാണ് മഹാഭാരതത്തിലെ ഘോഷയാത്രാപർവത്തെ സ്വകീയശൈലിയിൽ നമ്പ്യാർ അണിയിച്ചൊരുക്കുന്നത്. അദ്ദേഹത്തിന്റെ കൊട്ടാരത്തിലെ ഭോജനദാനത്തിന് കേരളീയഗന്ധമാണ്. കുറിയരിയുടെ വെളുത്തചോറും നെയ്യും തൈരും പച്ചടിയും കിച്ചടിയും വണ്ണൻപഴവും പപ്പടവും കാച്ചിയമോരും മാങ്ങാക്കറിയും നാരങ്ങാക്കറിയും നമ്മുടെ സദ്യവട്ടങ്ങളെ



അനുസ്മരിപ്പിക്കുന്നു. തന്റെ വമ്പത്തം കാണിക്കാൻ വനത്തിലേക്കുപുറപ്പെടുന്ന ദുര്യോധനൻ കേരളത്തിലെ നാടുവാഴിത്തത്തിന്റെ ദുഷ്പ്രമാണിത്വം വരച്ചുകാട്ടുന്നു. ആശ്രിതന്മാരെ ശാസിച്ചുവശംകെടുന്ന ഒരു സാധാരണ ഗൃഹസ്ഥനെ പോലെയാണ് ദുര്യോധനന്റെ സംഭാഷണങ്ങൾ നമ്പ്യാർ ചിട്ടപ്പെടുത്തിയിരിക്കുന്നത്. രസകരമായ ഒരുദാഹരണം :

കാട്ടിൽനിന്നും തിരിച്ചെത്തി ‘ഓട്ടൻ’ പാണ്ഡവരെ പറ്റിയുള്ള പരമാർത്ഥങ്ങൾ പറയുമ്പോൾ അതുകേട്ട് അസഹ്യതയോടെ ദുര്യോധനൻ കോപിക്കുന്നതാണ് സന്ദർഭം.

“ഒന്നിനയച്ചാലക്ഷമമാത്രം  
വന്നു പറഞ്ഞീടുകിലതുപോരും  
പോടാ നിന്നുടെ ദുസ്സാമർത്ഥ്യം  
കൂടാ നമ്മോടു കൂടിലകരോരാ!  
പാടവമേറിന പാണ്ഡുസുതമാ-  
രോട്കൂടി നടന്നാലും നീ  
നമ്മുടെ ചോർ തിന്നുന്നൊരു ദുഷ്ടനു  
നമ്മുടെ വൈരികളിൽ ബഹുമാനം  
.....  
ചോരൊരിടത്തിൽ കുരൊരിടത്തിൽ  
വേറുതിരിച്ചു ഗ്രഹിപ്പാരായി  
ഏറിപ്പോം പറയുമോളിക്കഴു-  
വേരിക്കിട്ടു തൊഴിപ്പാൻ തോന്നും.”

അതുപോലെ കേരളത്തിൽ നിന്നുള്ള ചിലയാളുകളാണ് കാട്ടിൽപ്പാർക്കുന്ന പാർത്ഥന്മാരെ തങ്ങളുടെ വിഭവശേഷി കാണിക്കാനായി ദുര്യോധനാദികളോടൊപ്പം ഘോഷയാത്രയെ അനുഗമിക്കുന്നത്. നായന്മാരും പട്ടന്മാരും പട്ടാണികളും ചെട്ടികളും കോമട്ടികളും മാക്കോച്ചാരും കേളച്ചാരും കണ്ടച്ചാരും അങ്ങനെ ആ പട നീളുന്നു. അവർക്കകട്ടെ ദുര്യോധനനൊരുക്കുന്നത്,

“പുകയില വെറ്റില കഞ്ചാവും പല-  
വകയിൽ കള്ളു കറുപ്പും വേണം”

എന്നിങ്ങനെ അപചയത്തിന്റെ ലഹരികളാണ്. കച്ചയുടുത്ത് അച്ചിമാർനടത്തുന്ന പരദുഷണകഥകളും സംബന്ധങ്ങളിലെ അസംബന്ധങ്ങളും ആട്ടവും പാട്ടും ഘോഷയാത്രയ്ക്ക് കൊഴുപ്പേകുന്നു. വനത്തിലെത്തി ചോലയിൽ ‘നഞ്ചു’കലക്കുവാൻ നിർദ്ദേശിക്കുന്ന ദുര്യോധനന്റെ ഹീനബുദ്ധിയും ഗന്ധർവരാജാവ് ചിത്രസേനനുമായുള്ള ഘോരയുദ്ധവും പേടിച്ചോടുന്ന ചെണ്ടക്കാരും നായർപടയും തോറ്റോടുന്ന കൗരവന്മാരുടെ ഗോഷ്ടികളും യുധിഷ്ഠിരൻപറയുന്ന മാർജ്ജാരകഥയും കുറുനരിയുടെ



കൗശലത്തിന്റെ കഥയും പാണ്ഡവസഹായത്താൽ രക്ഷപ്പെട്ട കൗരവാദികളുടെ അവസ്ഥയും ‘ഘോഷയാത്ര’യെ ആഘോഷമാക്കുന്ന വായനാനുഭവങ്ങളാണ്. തുള്ളൽ രചനയിൽ കുഞ്ചൻനമ്പ്യാർ പുലർത്തുന്ന സമഗ്രാചിന്തയുടെ നിദർശനങ്ങളാണവ.

വർണ്ണന, പദസമ്പത്ത്, പരിഹാസം, പഴഞ്ചൊൽപ്രപഞ്ചം തുടങ്ങിയ സ്വാഭാവിക കാവ്യ സങ്കേതങ്ങളുടെ അസാധാരണതാം സൃഷ്ടിക്കുമ്പോൾതന്നെ വ്യവസ്ഥാപിതവും ഗൗരവതരവുമായ സമദർശിയുടെ എല്ലാ അർത്ഥതലങ്ങളും ‘ഘോഷയാത്രയുടെ’ സന്ദേശങ്ങളായി മാറുന്നു. പ്രസിദ്ധങ്ങളായ ചില ഭാഷാശൈലികളും സാർവത്രികമായ പഴഞ്ചൊല്ലുകളും കുഞ്ചൻനമ്പ്യാരുടെ കവിതകളിൽ കാണാം. ‘ഘോഷയാത്രയിലെ’ ചില ഉദാഹരണങ്ങൾ.

**വർണ്ണന**

ഘോഷയാത്രയ്ക്കു പുറപ്പെടുന്ന കൗരവാദികളെ കവി വർണ്ണിക്കുന്നതു നോക്കുക:-

“തരമൊടു തലമുടി ചിക്കിമിനുക്കി  
തരി വള പിരിവള കാഞ്ചിപതക്കം  
വിരുതുകൾ പലവക വിരൽമോതിരവും  
അരമണി കുമണി തുടർമണികങ്കണ  
മരഞ്ഞാണം ചില തോൾപുട്ടുകളും  
മകുടം കടകം മണികുണ്ഡലവും  
വികകിരീടം വിദ്രുമഹാരം  
വികസിത സുരഭില മലർമാലകളും  
സകലമണിത്തു തെളിഞ്ഞുനടന്നാർ”

ഇങ്ങനെ, ‘സ്വാഭാഭാവോക്തിയലങ്കാരത്തിന്റെ സ്വാഭാവികഭംഗിയിൽ അനർശളമായൊഴുകുന്ന നമ്പ്യാരുടെ പദസമ്പത്ത് നമ്മെ അത്ഭുതപ്പെടുത്തും.

**ഭാഷാശൈലികൾ**

1. ആനകളിക്കുക=കളിയാക്കുക  
“ഉയിരരിപോലും ചോദിച്ചാലവർ  
തരികില്ലെന്നല്ലാനകളിക്കും.”
2. ഉർദ്ധമാകുക=വിഹലമാകുക  
“ഉള്ളു തന്നിലഹംഭാവം കണ-  
കൊള്ളുന്നേരമതുർദ്ധമതാകും”



- 3. ക്ലേശിക്കുക = ചോദിക്കുക  
“നീനോടവരുടെ ഗുണദോഷങ്ങളി-  
ലൊന്നും ഞാനിഹ ക്ലേശിച്ചീല”
- 4. ചെണ്ട=അമളി, ചെണ്ടക്കാർ-അമളിപറ്റിയവർ  
“ചെണ്ടക്കാരുടെ ദീനമൊഴിച്ചുട-  
നവരുടെ ദിക്കിനയയ്ക്കേ വേണ്ടൂ...”
- 5. മാറ്റി=അൽപ്പൻ/മുഡൻ  
“മാറ്റികളെപ്പുനരേത്തിന്നുനാമിഹ  
മാറ്റിക്കൊൾവാൻ പണിചെയ്യുന്നു”
- 6. യഷ്ടി=ചതിയൻ/കൊള്ളരുതാത്തവൻ  
“വെട്ടമെടുക്കും മുമ്പേയഷ്ടികൾ  
ഘട്ടിസ്സാദമെടുത്തു ഭുജിക്കും”
- 7. വാശ്ശതും=വല്ലതും  
“കുറ്റം വാശ്ശതുമൊന്നുണ്ടാക്കി  
കൊറ്റുമുടക്കാൻ മടിയില്ലവനും”

**പഴഞ്ചൊല്ലുകൾ**

- 1. “തോണികടന്നാൽ തുഴകൊണ്ടെന്നൊരു  
നാണിയുമുണ്ടതുദോഷ്കല്ലേതും”  
(തോണികടക്കുവോളം നാരായണ...പിന്നെ കുരായണ)
- 2. “കുറുനരി ലക്ഷം കൂടുകിലും ഒരു  
ചെറുപുലിയോടുഫലിക്കില്ലേതും“  
(ഉടുക്കുകൊട്ടി പേടിപ്പിക്കരുത്)
- 3. “നായുടെ വാലൊരു പന്തീരാണ്ടേ-  
ക്കായതമാകിന കുഴലതിലാക്കി  
പിന്നെയെടുത്തതു നോക്കുന്നേരം  
മുന്നേപ്പോലെ വളഞ്ഞെയിരിപ്പൂ”  
(നായുടെ വാല് പന്തീരാണ്ടുകാലം കുഴലിലിട്ടാലും വളഞ്ഞെയിരിക്കൂ...)
- 4. “യഷ്ടികളെ ഭയമില്ല കുരയ്ക്കും  
പട്ടി കടിക്കില്ലെന്നു പ്രസിദ്ധം”  
(കുരയ്ക്കും പട്ടി കടിക്കില്ല)



**അലങ്കാരപ്രയോഗങ്ങൾ**

നമ്പ്യാർക്കവിതകളിൽ അർത്ഥാലങ്കാരങ്ങളേക്കാൾ കൂടുതലായി കാണുന്നത് ശബ്ദാലങ്കാരങ്ങളാണ്.

**ശബ്ദാലങ്കാരങ്ങൾ**

1. “ഓട്ടൻവന്നുപറഞ്ഞൊരുവാക്കുകൾ  
കേട്ടുകയർത്തുരചെയ്തുസുയോധനൻ”  
(ദ്രിതീയാക്ഷരപ്രാസം)
2. “കണ്ടച്ചാരുടെ കണ്ടമെടുത്തതു  
കണ്ടനീവരവുണ്ടെന്നോർത്തു”  
(ഛേദാനുപ്രാസം)
3. “കുടുമപിടിച്ചുവലിച്ചും ചിലരുടെ  
പിടരിപിടിച്ചുതിരിച്ചും ചിലരുടെ”  
(അന്ത്യപ്രാസം) (ദ്രിതീയാക്ഷരപ്രാസം) (അനുപ്രാസം)

**അർത്ഥാലങ്കാരങ്ങൾ**

1. “ഉപ്പുപിടിച്ച പദാർത്ഥത്തേക്കാൾ  
ഉപ്പിനുപുളികുറയും പറയുമ്പോൾ  
അപ്രിയമായ് വരുമതുകൊണ്ടും ഭയ-  
മിപ്പരിഷ്കു തരിച്ചില്ലറിവിൻ”  
(ദൃഷ്ടാന്തം)
2. “കാറ്റിൻ മകനൊരു വൻപുലിപോലെ  
ചീറ്റിയണഞ്ഞു പിണങ്ങുന്നേരം” (ഉപമ)  
ഇങ്ങനെ നമ്പ്യാർക്കവിതയെ സമ്പന്നമാക്കുന്ന സൗന്ദര്യങ്ങൾ പലതാണ്.  
ഭാഷാപ്രയോഗത്തിലെ മനോധർമ്മം നമ്പ്യാർ ഫലിതത്തിന്റെ പ്രത്യേകതയായി  
ചിരകാല പ്രതിഷ്ഠ നേടിയതിനും ഉദാഹരണങ്ങളുണ്ട്.
1. “കരിക്കലക്കിയ കുളം - കളഭം കലക്കിയ കുളം  
കാതിലോല? - നല്ല.....താളി”  
എന്നിങ്ങനെ ഉണ്ണായിവാദ്യരെയും കുഞ്ചൻനമ്പ്യാരെയും പരാമർശിച്ചുകൊണ്ടുള്ള  
കഥകൾ,
2. “നമ്പിയാരെന്നു ചോദിച്ചു”  
“നമ്പിയാരെന്നു ചൊല്ലിനേൻ”
3. “ദീപസ്തംഭം മഹാശ്ചര്യമെന്നിക്കും കിട്ടണം പണം”
4. “കൈപ്പിഴ വന്നതുകൊണ്ടുള്ള ഗ്രഹപ്പിഴയാണ്”





5. “പയ്യേ! നിനക്കും പക്കത്താണോ ചോറ്?”

തുടങ്ങിയ നമ്പ്യാരുടെ ഫലിത വാചകങ്ങളും സാർവത്രികമായി സന്ദർഭം നോക്കി മലയാളികൾ പ്രയോഗിക്കാറുള്ളതാണ്.

‘ഘോഷയാത്ര’ 18-ാം നൂറ്റാണ്ടിൽ എഴുതപ്പെട്ട കൃതിയാണ്. ആഗോളവൽക്കരണവും മൂന്നാംലോകസങ്കല്പങ്ങളും മലിനമാക്കിയ ഭൗതികവും ഭൗതികേതരവുമായ ഇന്നിന്റെ ജീവിത ഘോഷയാത്രയെ അത് ചോദ്യം ചെയ്യുന്നു. വനവും വെള്ളവും വിഷലിപ്തമായ പരിസ്ഥിതിയും നവമാധ്യമചുഷണപരിസരങ്ങളും പ്രലോഭനങ്ങളാവേശിച്ച പൊതുബോധവും ഒടുവിൽ മനുസംസ്കരണങ്ങളുടെ മഹനീയമായ മടക്കയാത്രകളിൽ അഭയമിരക്കുമെന്നാണ് ‘ഘോഷയാത്ര’ ഓർമ്മിപ്പിക്കുന്നത്.

**സഹായകഗ്രന്ഥങ്ങൾ**

- 1. വ്യാസമഹാഭാരതം മഹാഭാരതകഥ - വിദ്വാൻ.കെ പ്രകാശം.
- 2. ഘോഷയാത്ര ഓട്ടൻതുളുൽ - കുഞ്ചൻ നമ്പ്യാർ.
- 3. കേരളത്തിലെ ദൃശ്യകലാ സാഹിത്യം - അയ്മനം കൃഷ്ണമൈൽ.



### കൃപാരസം മോഹനം കളിർ തണ്ണീർ

ആശാൻ കവിയുടെ ജലസാന്നിധ്യത്തെക്കുറിച്ചുള്ള ഒരു ന്യേഷണം

എം. എസ്. പോൾ

കാതോലിക്കേറ്റ് കോളേജ്

പത്തനം തിട്ട - 689645

ഫോൺ - 9447589866

ഇത്രയേറെ ജലബിംബങ്ങളെ എന്തിനാണ് കമാരനാശാൻ തന്റെ കവിയുടെ കൈകൾ കൊണ്ടുവന്നത്? ഇങ്ങനെ ജലബിംബങ്ങളെ സ്നേഹിച്ച കവി പലനയാറ്റിൽ ജല സമാധിയായതിനു പിന്നിലെ വിധിയെന്ത്? ആശാൻ കവിയുടെ കവിതകളിലൂടെ ഈ ജലസമൃദ്ധി കടന്നു വരുന്നതിന്റെ പശ്ചാത്തലമെന്താണ്?

അത്തരമൊരു അന്വേഷണത്തിന് ഏറെ പ്രസക്തിയുണ്ട്. ആശാൻ കവിയുടെ ജലസാന്നിധ്യത്തെക്കുറിച്ചുള്ള ഒരു ന്യേഷണമാണിവിടെ. ദാഹജലത്തിനുവേണ്ടി കിണറു രികിൽ നിൽക്കുന്ന ഭിക്ഷുവിൽ നിന്ന് ഈ അന്വേഷണം തുടങ്ങാം. 'ദാഹിക്കുന്നു ഭഗിനി കൃപാരസം മോഹനം കളിർ തണ്ണീർ' എന്ന പ്രയോഗം മാത്രം നോക്കുക. വെള്ളത്തിന് മുമ്പ് വിശേഷണങ്ങൾ ഇതുവെറും തണ്ണീരല്ല സമാനമായ ഒരന്തരീക്ഷം ബൈബിളിലുണ്ട്. 'ജീവന്റെ ജലം' എന്ന പ്രയോഗം കൃപാരസത്തിന് പകരമായി അവിടെയുണ്ട്. ദാഹജലം എന്ന വലിയ സങ്കല്പം ഒട്ടേറെ മാനങ്ങളുള്ളതാണ്. അത് ശാരീരികാവസ്ഥ മറികടന്ന് തത്വചിന്തപരമായ മാനങ്ങളിലേക്ക് പോകുന്നുണ്ട്. വെള്ളം ചോദിച്ചു ചെല്ലുന്ന ഇവരെല്ലാം ഭിക്ഷുക്കളാണ്. ഇവർക്ക് കോരിക്കടിക്കാവുന്നതേയുള്ളൂ. മറ്റൊന്ന് സ്ത്രീകളോടാണ് ഇവരെല്ലാം ദാഹജലം യാചിക്കുന്നത്. മോഹനം എന്ന വാക്ക് ഇവിടെ കടന്നുവരുന്നുണ്ട് അത് മോഹനരാഗത്തെ അനുസ്മരിപ്പിക്കുന്നുണ്ട്. കൃപാരസം എന്ന് വെള്ളത്തെ വിശേഷിപ്പിക്കുമ്പോഴും ജലത്തിന് യാചിച്ചു നിൽക്കുന്ന മനുഷ്യൻ ഇവിടെയുണ്ട്. ബുദ്ധ ക്രൈസ്തവ മതപശ്ചാത്തലത്തിലൂടെ ജലം എന്ന യാഥാർത്ഥ്യത്തെ അതിന്റെ താത്വിക മാനങ്ങളിൽ ആശാൻ അഭിസംബോധന ചെയ്യുകയാണിവിടെ. കടലിൽ നിന്ന് കായലിലേക്കും അവിടെ നിന്ന് ജലാശയങ്ങളിലേക്കും കിണറിന്റെ ഇത്തിരിവട്ടത്തിലേക്കും പരിമിതപ്പെട്ട ഒരു മനുഷ്യൻ ഇവിടെയുണ്ട്. കമാരനാശാന്റെ ദാമ്പത്യജീവിതകാലത്താണ് ചണ്ഡാല ഭിക്ഷുക്കി എഴുതുന്നത്. 1922 ൽ 'മോഹനം' എന്ന വാക്കിനെ മുൻനിർത്തി ഈ തണ്ണീർ വിശേഷണങ്ങളെ നോവലിസ്റ്റായ രാജേന്ദ്രൻ എടുത്തുകൊണ്ടു ഒരിക്കൽ ഫേസ്ബുക്കിൽ എഴുതിയിരുന്നവെന്നും ശ്രദ്ധേയമാണ്.

കമാരനാശാൻ എന്ന കവി ജനിച്ചു വളർന്ന ഭൂമി ശാസ്ത്രപശ്ചാത്തലം മറന്നുകൊണ്ടു കടൽ ചർച്ചകൾ. കടലും കായലും ബന്ധപ്പെട്ടു കിടക്കുന്ന കായിക്കര എന്ന ഭൂപ്ര



ദേശം, കുട്ടിക്കാലത്തെ ഒട്ടേറെ നിന്ദനഭാവങ്ങൾ തന്റെ അമ്പത്തിനാലാം വയസ്സിലെ മുങ്ങിമരണം ആശാൻ കവിതകളിൽ ആവർത്തിക്കുന്ന ജലബിംബങ്ങൾ പരിശോധിക്കുക. എന്തുകൊണ്ട് ബോധത്തിലും അബോധത്തിലും ആശാൻ കവിതകളിൽ ഇത്രയേറെ ജല സാന്നിധ്യമുണ്ടായി? ചണ്ഡലഭിക്ഷുകിയിൽ നിന്ന് തുടങ്ങാം. “പാളയിൽ ചിന്നിനിന്നു തുളുമ്പി മനോജ്ഞമായ മധ്യം പൊട്ടി നറുങ്ങിവിലസുന്ന ശുദ്ധകണ്ണാടി കാന്തി ചിതറും നിർ” ദാഹജലം കോരിക്കൊടുക്കുന്ന പെണ്ണ് അത് ഏറ്റുവാങ്ങുന്ന ഭിക്ഷു. ഈ കവിത ആത്യന്തികമായി ജലത്തെ മുൻനിർത്തി ദാഹം എന്ന മനുഷ്യാവസ്ഥയെയാണ് ആവിഷ്കരിക്കുന്നത്.

ആശാൻ കവിതയിലുടനീളം ഈ ജലസാന്നിധ്യമുണ്ട്. ജലാശയങ്ങളും നദികളുമാണ് കൂടുതൽ. കടലനദങ്ങൾ പൊതുവെ കുറവാണ്. ‘രവിജലയിലിടാശു മുങ്ങി’ എന്ന ലീലാ ശ്ലോകത്തിലും, ഉന്നതമായ കുന്നമെന്നല്ലാഴിയുമൊരിക്കൽ നശിക്കുമോർത്താൽ എന്ന വീണപ്പുവിലെ ശ്ലോകത്തിലും ‘ദീപുകളുണ്ട് സിന്ധുവിൽ’ എന്ന ചിന്താവിഷ്കൃതയായ സീതയിലെ ശ്ലോകത്തിലുമൊക്കെ കടൽ പരാമർശിക്കുന്നു എന്നതൊഴിച്ചാൽ കടൽ ആശാൻ കവിതകളിൽ കടന്നു വരുന്നില്ല.

ആശാൻ കവിതയിലെ ജലസാന്നിധ്യം കടലനദവെന്തെക്കാൾ ചെറുജലാശയങ്ങളുടെ സമൃദ്ധിയാണ്. അതിന്റെ ഏറ്റവും മികച്ച അനുഭവമാണ് നളിനി. നളിനിയുടെ മായിക തന്നെ ഒരിക്കൽ ആ ജലാശയത്തിൽ ജീവനൊടുക്കാൻ തീരുമാനിച്ചുവളാണ്.

നളിനി എന്ന പേരിൽ പോലും അത് പ്രതിധ്വനിക്കുന്നുണ്ട്. നളിനിയുടെ മരുഭൂയാത്രകളിലൂടെയാണ് ആ കാവ്യത്തിന്റെ കഥാഗതി. ദിവാകരന്റെ ഉഷ്ണമേഖലയാത്രകളിൽ ആർദ്രസ്തർശങ്ങളില്ല. എന്നാൽ നളിനിയത് തീവ്രമായി ആഗ്രഹിക്കുകയും ചെയ്യുന്നുണ്ട്.

താമരപൊയ്കകളും ചെറുജലാശയങ്ങളും ഉപേക്ഷിച്ച് നദീസാന്നിധ്യത്തിലാണ് ലീല എന്ന ഖണ്ഡകാവ്യം. വിന്ധ്യാശത്പുര പർവ്വത പ്രദേശത്തെ രേവനദീതീരത്തിലാണ് ഈ കഥ നടക്കുന്നത്. ഈ ഖണ്ഡകാവ്യത്തെ ആ പ്രാദേശിക ഭൂമികയിൽ പരിമിതപ്പെടുത്തുന്നതും ശരിയല്ല. കാരണം കമാരനാശാന്റെ ലോകവീക്ഷണവും അനുഭവപരിചയവും വികസിച്ച ഒരു കാലയളവിലാണ് ലീലാകാവ്യം ഉണ്ടാകുന്നത്. മലയാളിയുടെ സദാചാരമൂല്യസങ്കല്പങ്ങളെയും കടംബവീക്ഷണത്തെയും തകർത്തു കളഞ്ഞ കൃതിയാണ് ലീല. ലീല ഒരു പരിധിവരെ ഒഴിവാക്കപ്പെട്ട കാവ്യമാണ്. നായകനും നായികയും ജലസമാധിയിലേക്ക് സഞ്ചരിക്കുകയാണിവിടെ. വീട്ടിൽ നിന്നിറങ്ങി കാട്ടിലേക്ക് നദീതടത്തിലേക്ക് പ്രകൃതിയിലേക്ക് വിലയം പ്രാപിക്കുകയാണിവർ. ലീലയുടെ കാമുകനായ മദനൻ വിന്ധ്യാപർവ്വതതടത്തിലെ വനാന്തരത്തിലുണ്ടെന്നറിയുന്ന തോഴി മാധവിയിൽ നിന്നു തുടങ്ങുന്നു കാവ്യം. ലീലാകാവ്യത്തിന്റെ മൂന്നാം സർഗ്ഗത്തിലാണ് നദീതടത്തിലേക്ക് കഥാപാത്രങ്ങൾ കടന്നു ചെല്ലുന്നത്.



നർമ്മദോർമ്മി

പരിചയശൈത്യമിയന്ന മന്ദവായു - വിൽ

തുടങ്ങി നദീതടത്തിലേക്ക് അനുവാചകനെ കൊണ്ടു പോവുകയാണ് കവി.

സമയമതിലുയർന്ന ഘോരവാരി-

ഭ്രമമൊടകാലിക വൃദ്ധിരേവയാർന്നു

ഘൃമ ഘൃമ്മരയഘോമെറ്റിയാരാൽ

യമപ്പുരിതന്നിലടച്ച ഭേരിപോലെ എന്നു തുടങ്ങി രേവാ നദി ശക്തി പ്രാപിക്കുകയാണിവിടെ. നളിനി ജലാശയത്തിൽ ചാടി ആത്മഹത്യ ചെയ്യാനൊരുങ്ങുകയും അത് പരാജയപ്പെടുകയും ചെയ്യുന്നു. ലീലയിലെ കഥാപാത്രങ്ങൾ ആത്മഹത്യയിലൂടെ പ്രണയ സാക്ഷാത്കാരം നടത്തുകയും ചെയ്യുന്നു. യഥാർത്ഥത്തിൽ കമാരനാശാൻ പോലും ജല സമാധിയാവുകയായിരുന്നില്ലേ. കവി ഒരു പക്ഷെ തന്റെ മരണം മുൻകൂട്ടി കണ്ടിരുന്നോ? അതോ തന്റെ മരണം മുൻകൂട്ടി ആവിഷ്കരിക്കുകയായിരുന്നോ?

ഈ നദീജീവിതം ആശാന്റെ മറ്റു കവിതകളിലും ആവർത്തിക്കുന്നു. ഗരിസിപ്പ അരുവി അല്ലെങ്കിൽ ഒരു വനയാത്ര എന്ന ലഘുകവിതയെക്കുറിച്ച് എഴുതിയിട്ടുണ്ട്. കാണുന്ന ഞാനരുവി വീഴുവതിപ്പുഴം എന്നൊക്കെ പറയുന്ന ഈ കവിതയിൽ ആശാന്റെ സ്വകാര്യ ജീവിതം പ്രതിഫലിക്കുന്നുവെന്ന സൂചനയും ആ പാനത്തിലുണ്ട്.

എന്തുകൊണ്ട് കമാരനാശൻ കവിതകളിൽ ഇത്രമാത്രം ജലബിംബങ്ങളെ കൊണ്ടു വരുന്നു ചെറു ജലാശയങ്ങളും കൊച്ചുവരവികളുമില്ലാതെ മറ്റൊന്നും ആശാൻ കവിതയിലില്ല. ആശാന്റെ ജീവിതാന്ത്യവും പല്ലയനയാറ്റിലെ വളവിൽ അവസാനിക്കുകയായിരുന്നു. കടലിനും കായലിനുമിടയിൽ ജീവിച്ച ഒരു മനുഷ്യൻ ജലത്തെക്കുറിച്ച് പറഞ്ഞ ഒരു വാക്യമാണിവിടെ പ്രസക്തം. കൃപാരസം മോഹനം കളിർ തണ്ണീർ. ദാഹിച്ചു വലഞ്ഞ ഭിക്ഷു ആഗ്രഹിച്ച ദാഹജലം. ക്രിസ്തുവും ഇതേ ദാഹജലത്തിനുവേണ്ടി യാചിച്ചിരുന്നു. ഈ ജലത്തിൽ തന്നെ ജീവിതം അവസാനിച്ച കവിയെ ഓർക്കാതെവയ്യ. ആശാൻ കവിതയിലെ ജലസാന്നിധ്യം ഏറെ ചർച്ചചെയ്യേണ്ടിയിരിക്കുന്നു.



## Role of Indian Economy in Prosperity of the World Economy from 1<sup>st</sup> Century to 21<sup>st</sup> Century and Comparison Economy of USA and China

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**Abstract:** In this paper the role of Indian economy in the prosperity of the world economy is discussed as a whole. Particularly, the agro-social economy of Indian subcontinent since 1526 to 2018 is emphasized in connection to the healthcare, education, infrastructure technology based industrial economic growth prospectus. The British impact on Indian agriculture, industry, population, GDP and GDP per capita in India from 0-1998 and from 1998 to 2018 statistics are discussed in brief. In this paper we compare the population and share of world population of Indian, US and China. According the population of these three countries we further discussed the GDP and share of world GDP of India, US and China from 0 to 2018 with the help of the data of World Bank.

**Keywords:** GDP, GDP per capita, population

### 1. Introduction:

For the developing country, first India's Vision 2020 was documented by Technology Information, Forecasting and Assessment Council (TIFAC) of India's Department of Science and Technology under the chairmanship of A. P. J. Abdul Kalam and a team of 500 experts [1]. The plan is further detailed in the book India 2020: A Vision for the New Millennium, which Dr. Kalam co-authored with Y. S. Rajan. Sometime we call the it as the vision of Dr. A. P. J. Abdul Kalam about India and its economy. Kalam prepare blue print of plan for development of economy.

Kalam described the plan as follows [2]:

"Transforming the nation into a developed country, five areas in combination have been identified based on India's core competence, natural resources and talented manpower for integrated action to double the growth rate of GDP and realize the Vision of Developed India".

The developing economy is based upon majorly on five aspects:

- **Agriculture and food processing:** Aimed at double the present production of agricultural and food processing.
- **Infrastructure with reliable electric power:** Providing urban amenities to rural areas, and increasing solar power, hi-tech science and technology operation.
- **Education and Healthcare:** Directed towards literacy, social security, and overall health for the population.
- **Information and Communication Technology:** For increased e-governance to promote education in remote areas, telecommunication, and telemedicine.



- **Critical technologies and strategic industries:** The growth of nuclear technology, space technology.

A investigates the long and short run relationships among carbon emissions, energy consumption and economic growth in India at the aggregated and disaggregated levels during 1971–2014. The autoregressive distributed lag model is employed for the cointegration analyses and the vector error correction model is applied to determine the direction of causality between variables. Results show that a long run cointegration relationship exists and that the environmental Kuznets curve is validated at the aggregated and disaggregated levels [3]. Countries across the globe watching India as a democratic country and is poised to become a leader of regions. In the global environment, India has multiple strengths of larger youth population, growing middle class people, increasing literacy level and improving technical knowledge among the work force which would address favorably any proactive change in the present setup [4]. Since the pro-market reforms were launched, the Indian economy has grown from 5% in the 1980s to around 10% in 2011 before slowing down dramatically to less than half that rate in recent years. From launching of reforms until 2011, it did manifest some vivid and impressive signs of India moving towards high growth and increase in living conditions of its population. Siddiqui, Kalim describes about the access the likely effects of the reform measures on economic growth and poverty [5]. Malayendu Saha is focusing the growth of Indian economy and its financial sector using the different economic and financial indicators. He also observed that while the country has liberalized its international trade and investment regime, the economy is still insulated from international competition [6]. Since 1951, India has fully-fledged as a planned economy. The first few plans focused on growth with strengthening of the manufacturing and industrial sector to form the backbone of the Indian economy. Other principal areas of planning were agriculture, poverty alleviation, employment generation, social development etc. Back in 1991, India saw itself battling its most critical economic and currency crisis ever, but after economic reforms and adopting the policy of LPG (Liberalization, Privatization, and Globalization) Indian economy performed well. Then again due to global financial crisis in 2008 Indian economy again interrupted and going through another turbulent phase and analysis Indian economy from 1991-2013 [7]. Pratibha S.Gaikwad analyze the effects flow of foreign direct investment (FDI) arising from the implementation of liberalization policies (economic reform) on the gross domestic production (GDP) growth in Indian economy using a Cobbâ€ˆDouglas production function and ARDL method during the period 1990-2008 [8].

In second section we are discussing the condition of India from Moghuls and the end of British rule. This section explains the economy of India, Socioeconomic Structure and social structure of India at that time. Here we discuss the impact of British rule on Indian Industry and agriculture.

In the third section we will discuss the Population, GDP and GDP Per Capita of India from 0-1998 A.D and compare this with the country US and China.

In the fourth section we will discuss the Population, GDP and GDP Per Capita of India from 1998 to 2018 and compare this with the country US and China.

Fifth section gives the conclusion with the study of the economy of India from past to present and compare these aspects with US and China.

## 2. India from Moghul to end of British rule

Mughal dynasty, Mughal also spelled Mogul, Persian Mughūl (“Mongol”), Muslim dynasty of Turkic-Mongol origin that ruled most of northern India from the early

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16th to the mid-18th century. After that time it continued to exist as a considerably reduced and increasingly powerless entity until the mid-19th century [9].

**Social Structure of the Moghul Empire<sup>[9]</sup>**

Percentage of labour force	Category	Per cent of national income after tax
<b>18</b>	<b>Non- Village Economy</b>	<b>52</b>
1	Moghul Emperor and Court	15
	Mansabdars	
	Jagirdars	
	Native princes	
	Appointed zamindars	
17	Hereditary zamindars	37
	Merchants and bankers	
	Traditional professions	
	Petty traders & entrepreneurs	
	Soldiers & petty bureaucracy	
	Urban artisans & construction Workers	
	Servants	
	Sweepers	
Scavengers		
<b>72</b>	<b>Village Economy</b>	<b>45</b>
	Dominant castes	
	Cultivators and rural artisans	
	Landless labourers	
	Servants	
	Sweepers	
	Scavengers	
<b>10</b>	<b>Tribal Economy</b>	<b>3</b>

The British connection with India started in 1600 with the creation of a monopoly trading company (the East India Company — EIC). For the first century and a half, it operated around the Indian coast from bases in Calcutta, Madras and Bombay. By the middle of the eighteenth century the main exports were textiles and raw silk from India, and tea from China. Purchases of Indian products were financed mainly by exports of bullion, and from China by export of opium and raw cotton from Bengal.

**Social Structure at the End of British Rule<sup>[9]</sup>**

Percentage of labour force	Category	Per cent of national income after tax
<b>18</b>	<b>Non- Village Economy</b>	<b>44</b>
0.05	British officials and military	5
	British capitalists, plantation owners,	
	traders, bankers & managers	
	Native princes	3

0.95	Big zamindars and jagirdars	
	Indian capitalists, merchants and managers	3
	The new Indian professional class	3
17	Petty traders, small entrepreneurs, traditional professions, clerical and manual workers in government, soldiers, railway workers, industrial workers, urban artisans, servants, sweepers & scavengers	30
75	<b>Village Economy</b>	<b>54</b>
9	Village rentiers, rural moneylenders small zamindars, tenants-in-chief	20
20	Working proprietors, protected tenants	18
29	Tenants-at-will, sharecroppers, village artisans and servants	12
17	Landless labourers, scavengers	4
7	<b>Tribal Economy</b>	<b>2</b>

## 2 Population, GDP and GDP Per Capita in India from 0-1998 A.D.

India does not have statistical records of the same sort as Western Europe, China or Japan, and there is consequently a wide range of views. A good deal of discussion has hinged on the year 1600, for which Moreland estimated 100 million, Davis (1951) 125 million, Habib (1982) around 145 million (a range of 140–150). Virtually all of these estimates are based on an assessment of the productive capacity of the cultivated area (see Raychaudhuri and Habib, 1982), so there is interdependence between what one assumes about demographic and economic performance. I took an average of the Davis and Habib estimate for 1600. For the year 0, I used the estimates of Durand [9,10].

Table 1 : Population of US, China and India form 0-1998 A.D.

Year	0	1000	1500	1600	1700	1820	1870	1913	1950	1973	1998
US	680	1300	2000	1500	1000	9981	40241	97606	152271	211909	270561
China	59600	59000	103000	160000	138000	381000	358000	437140	546815	881940	1242700
India	75000	75000	110000	135000	165000	209000	253000	303700	359000	580000	975000

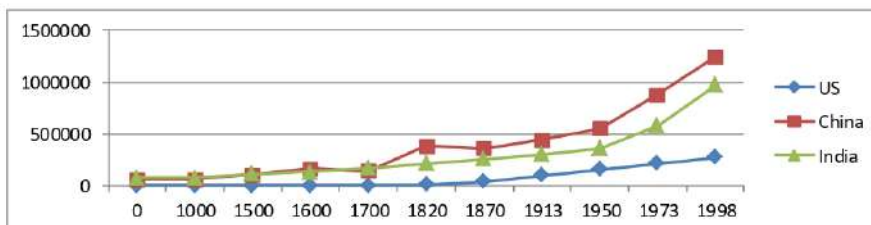




Table 2: Share of world population, US, China and India form 0-1998 A.D.

Year	0	1000	1500	1600	1700	1820	1870	1913	1950	1973	1998
US	0.3	0.5	0.5	0.3	0.2	1.0	3.2	5.4	6.0	5.4	4.6
China	25.8	22.0	23.5	28.8	22.9	36.6	28.2	24.4	21.7	22.5	21.0
India	32.5	28.0	25.1	24.3	27.3	20.1	19.9	17.0	14.2	14.8	16.5

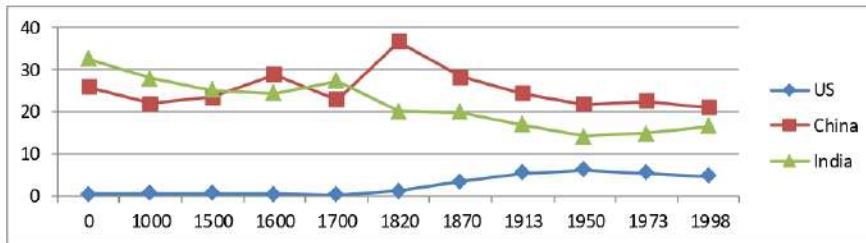


Table 3 : GDP of US, China and India form 0-1998 A.D. (Million 1990 International \$)

Year	0	1000	1500	1600	1700	1820	1870	1913	1950	1973	1998
US			800	600	527	12548	08374	517383	1455916	3536622	7304508
China	26820	26550	61800	96000	82800	228600	189740	241344	239903	740048	3873352
India	33750	33750	60500	74250	90750	111417	134882	204241	222222	494832	1702712

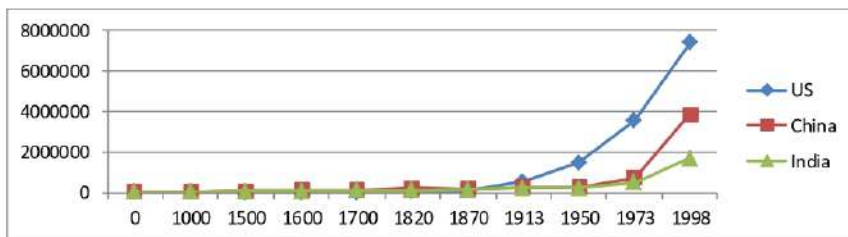
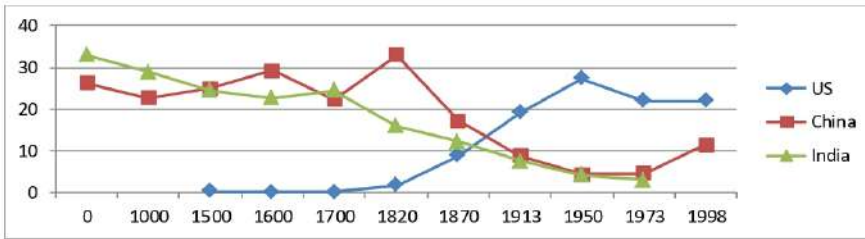


Table 4: Share of world GDP, US, China and India form 0-1998 A.D.

Year	0	1000	1500	1600	1700	1820	1870	1913	1950	1973	1998
US			0.3	0.2	0.1	1.8	8.9	19.1	27.3	22.0	21.9
China	26.2	22.7	25.0	29.2	22.3	32.9	17.2	8.9	4.5	4.6	11.5
India	32.9	28.9	24.5	22.6	24.4	16.0	12.2	7.6	4.2	3.1	5.0



### 3 Population, GDP and GDP Per Capita in India from 1998 to 2018

For the comparison of statically data I am using “The World Bank” data which is publically provided [10].

Table 5: Population of US, China and India form 1998 to 2018

Year	US	China	India
1998	275854000	1241935000	1019483581
2000	282162411	1262645000	1056575549
2002	287625193	1280400000	1093317189
2004	292805298	1296075000	1129623456
2006	298379912	1311020000	1165486291
2008	304093966	1324655000	1200669765
2010	309326085	1337705000	1234281170
2012	313874218	1350695000	1265782790
2014	318386421	1364270000	1295604184
2016	323071342	1378665000	1324509589
2018	327167434	1392730000	1352617328

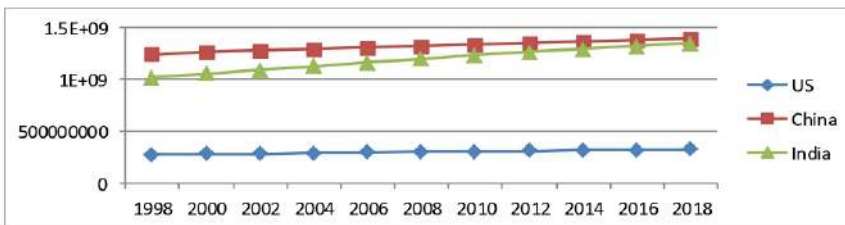


Table 6: Share of world population, US, China and India form 1998 to 2018

Year	US	China	India
1998	4.632456	20.856	18.83237
2000	4.614185	20.64796	19.00593
2002	4.584745	20.40957	19.17022
2004	4.552056	20.14925	19.31768
2006	4.52528	19.88315	19.44356



2008	4.499838	19.60161	19.54363
2010	4.468127	19.32277	19.61172
2012	4.428877	19.05879	19.64671
2014	4.388115	18.80285	19.64212
2016	4.350483	18.56512	19.61945
2018	4.308083	18.33922	19.59213

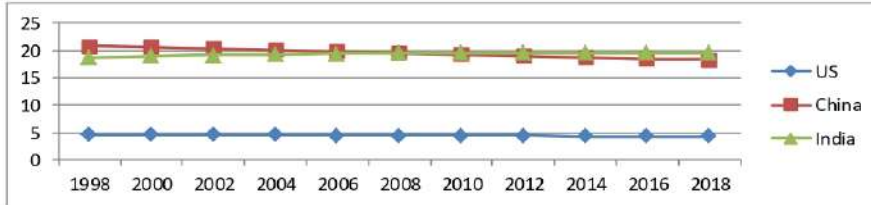


Table 7: GDP of US, China and India form 1998 to 2018 (constant 2011 international \$)

Year	US	China	India
1998	1.18118E+13	3.98863E+12	2.53356E+12
2000	1.28839E+13	4.65912E+12	2.8636E+12
2002	1.32392E+13	5.50857E+12	3.11592E+12
2004	1.41353E+13	6.67427E+12	3.62712E+12
2006	1.50496E+13	8.38053E+12	4.23006E+12
2008	1.5311E+13	1.04974E+13	4.69468E+12
2010	1.53052E+13	1.27056E+13	5.49407E+12
2012	1.58922E+13	1.50131E+13	6.09753E+12
2014	1.65818E+13	1.73605E+13	6.96762E+12
2016	1.73269E+13	1.98095E+13	8.1395E+12
2018	1.82295E+13	2.25368E+13	9.31708E+12

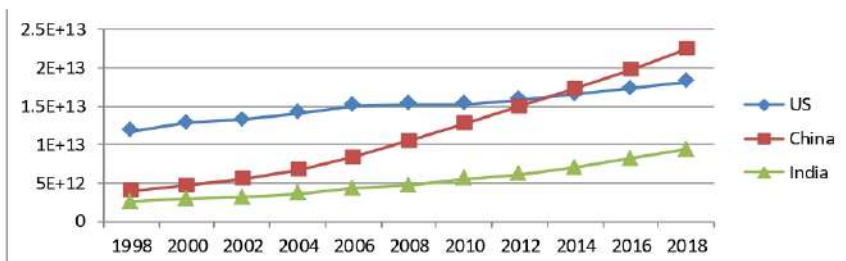
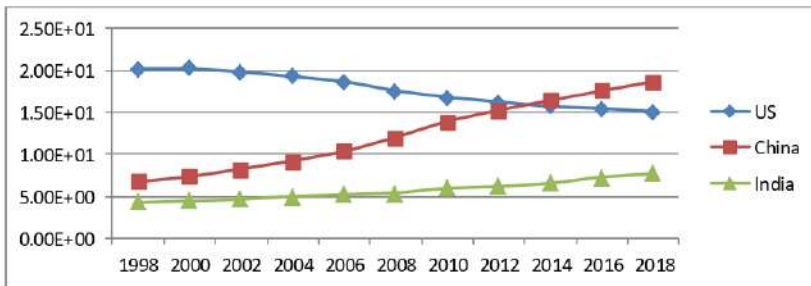


Table 8: Share of world GDP, US, China and India form 1998 to 2018 A.D.

Year	US	China	India
1998	20.17554	6.812937	4.327557
2000	20.29805	7.340252	4.511483



2002	19.81956	8.246559	4.664666
2004	19.35954	9.141009	4.96767
2006	18.67497	10.39934	5.249045
2008	17.52655	12.01639	5.374003
2010	16.71432	13.87539	5.999895
2012	16.15555	15.26189	6.198561
2014	15.74551	16.48488	6.616202
2016	15.40883	17.61665	7.238475
2018	15.08357	18.6476	7.70921



**Conclusion:** This paper explains that the economy of India was biggest in the world at 1<sup>st</sup> century and gradually by the attack of moghul and then by British rule, the economy of India decrease gradually and the share of Indian economy in world decrease in exponential way. One of the reason for decaying of Indian economy was its increasing population, some political reasons also work for this. The basic agriculture product processing technology experts in India also promoted metal and material science technologies to acquire fossil fuel and sedimentary rock oil energy exploration and reuse in solar and electric power and energy sector progression and utilization. The Indian's improved their astronomy and astrophysics space celestial knowledge bases to apply satellite based communication devise promotions. The information communication technology and critical technologies in strategic industries has grown the speed and minimizing distance between celestial bodies. The web and cybernetics knowledge sources developing artificial brains and memory sponsoring materials and technology.

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## JEWISH MOVEMENT AMONG BNEI MENASHE IN INDIA

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**Abstract:** Since the late 20th century, Chin, Kuki, and Mizo people claim descent from one of the lost tribes of Israel and have adopted the practice of Judaism. Israel Rabbi Avichail named these people the Bnei Menashe, based on their account of descent from Menashe. But, most of the other residents do not identify with this claim. Most of those who now identify as Bnei Menashe had converted to Christianity. The Bnei Menashe are small groups who started studying and practicing Judaism in the 1970s to return to what they believe is their ancestors' religion. With the help of Rabbi Avichail, 800 Bnei Menashe were migrated to Israel before 2004. But they could not enjoy facilities like other converted Jews as they were not officially recognized as Jew by the highest rabbinical court. The situation changed in 2005 as they were officially recognized. Shavei organization helped their migration process and sponsored all the other financial aspects. Around 3500 are migrated so far.

**Keywords:** Jewish, Bnei Menashe, migration, shaved organization

### INTRODUCTION

In 2005, North-East India attracted the attention of international media. Around 1700 Chin-Kuki-Mizo, after officially converted into Judaism, were permitted to migrate to Israel. Till today, around 3500 were migrated so far, and another 7200 awaited their turn. Conversion to Judaism is a must criterion for a ticket to Israel. After a careful survey, it is cleared that these people are hailing from three northeastern states: Mizoram, Manipur, and Nagaland, who trace back their lineage to a common ancestor. This paper delves into the Jewish movement's genesis and the subsequent development, including the main players.

Menashe Jewish community people pray in a Synagogue during a prayer ceremony before leaving for Israel from Churachandpur. The Jews from Manipur are known as Bnei Menashe and claim to be descendants of one of the ten lost tribes of Israel banished to India in the eighth century B.C.

An Israeli chief rabbi recognized them as a lost tribe in 2005, and about 1,700 moved to Israel before the Israeli government stopped giving them visas. The government recently reversed that policy. About 7,200 remain in India.

#### **The genesis of the Jewish Movement in North-East India**

The territories inhabited by the Chin-Kuki-Mizo tribes came under British control in 1890s. To protect them from exploitation by the more sophisticated Indians and Burmese, the restricted British entry into the region encouraged Christian missionaries

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to commenced work in Mizoram and Manipur in 1894 and Chin State in 1896 (Shakespeare:1998, pp.2-3).

It is imperative to give the chronological narrative to understand the development. Within a short period, the missionaries utilized the Roman script to create a written form of their language. With the introduction of the Bible in their dialect, many Chin-Kuki-Mizo tribes-people saw parallels between their pre-Christian traditions and those of the ancient Israelites, particularly concerning sacrificial practices and ethical teachings. The first sign of Israelite identity emerged during the revival period of 1936, where a certain Pu Kapa and Pu Saichhuma received prophesy that Mizo was the descendant of Israelites. In 1951, Challianthanga, head deacon of the United Pentecostal Church in the village of Buallawn in Mizoram, had a vision from God telling him the Mizo were descendants of the Israelites. To survive Armageddon, they must return to their original homeland and practice their ancient religion (Lalthangliana: 2000, p.22).

As descendants of Israelites, Challianthanga's followers sought to follow the commandments God had given the Israelites, such as keeping Saturday as the Sabbath, observing the pilgrim festivals, and refraining from eating unclean animals. They turned to the Bible to learn how they should fulfill these precepts. They saw no inconsistency in continuing to revere Jesus, seeing both the faith in Jesus and God's instructions to the Israelites as coming from the same source.

In 1966, Mizoram revolted against Indian rule and fought for its independence. Although Challianthanga had died in 1959, his followers sympathized with the rebels, whose leader, Laldenga, they saw as God's instrument. The Indian army recaptured the territory, but the rebels maintained the insurrection for many years. Having popular sympathy, they could melt back into the civilian population after a raid. To counter this, the Mizo were clustered into larger villages where the army could better control them. The inhabitants of Buallawn were transferred to a larger village, Ratu, and warned against disseminating their subversive beliefs (Interview: Thangruma, 2014).

During the 1970s, many groups published little booklets in English and various dialects spoken in Mizoram and the Churachandpur district, recounting the history of Israel's tribes who had been taken captive by the Assyrians in the eighth pre-Christian century, and resettled on the borders of Assyria. These booklets identified their tribal communities with the Israelites, recording their eastward wanderings over the centuries, through Afghanistan, through Central Asia to China, and on to Burma and northeast India, where they are found today.(Parfitt:2004, p.68). Between 1972 and 1976, leaders of the Manipur Jews Organization, the Church of God (Zionist), and others sought contact with India's established Jewish communities in Bombay and Calcutta, to whom they turned for support and advice on the practice of Judaism. That Jews did not recognize Jesus as the Messiah came as a surprise, as did the fact that Jews sanctified the Sabbath with wine. In contrast, the Christian missionaries had steadfastly opposed the use of alcohol.

Such revelations led the members of the Jewish groups in Manipur to reconsider what they were doing. T. Daniel resolved to follow normative Judaism and sought to pass on to his colleagues; all he had learned from Bombay's Jews. In October 1974, a new group, called the United Jews of North East India (UJNEI), was formed but came to grief as its members, Sabbath observers all, had differing religious orientations.

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On April 8, 1976, T. Daniel returned from his latest trip to Bombay with a tallith, tefillin, a (paper) Torah scroll, and a copy of the Code of Jewish Laws, donated to the community by Mrs. Esther, a Jewish woman from Bombay. They had voluntarily instructed in Judaism to T. Daniel and Moses Isaac during their visits to Bombay. She had arranged their circumcisions and their first call-up to the Torah in Synagogue. The community records April 8, 1976, which happened to fall within the festival of Passover, marking the birth of Judaism in the region. On August 12, 1976, the first Synagogue, Beith Shalom, was inaugurated in Churachandpur.

### **The Claim of Israel (Jews) Identity**

During the 1980s, Avichail traveled to northeast India several times to investigate the people's claims. He helped the people do research and collect historical documentation. The people were observed to have some practices similar to Judaism. Since then, several pieces of evidence are collected to support Mizo-Israelite origin. The Mizo-chin-Kuki people have many ancient songs and chants, which are very similar to the Bible's content. It is alleged that there are more than sixty customs that resemble Jewish customs (Zaithanchhungi: 2008, pp.12-56). Few popular references put forward are listed below: Among them, few instances are given below:

#### **Manasi/Menashe**

Reference of the named 'Manmasi' is always taken as Menashe of the Lost Tribes. The festival is similar to those of Jews, especially 'kawngpuiam' (Interview: Khuangchhungi, 2007). At the time of Kawngpuiam, the whole village sacrifice, the Mizo priest would say to the evil spirit, "What can you do against us? We are the descendants of Manasi." When they made a new village, before falling trees, the Mizo would say, "Away, Away,... you obstruct the way of our father Manmasi" At the time of making a sacrifice to God, they say "God above, for the remnants of our sins, we gave you this piece of meat for your forgiveness towards the children of Manasseh" (Zaithanchhungi: 2008, p.21).

#### **Fire Altar**

Before the advent of Christianity, there were sacrificial rites. The priest used to construct a sacrificial altar, just like the Israelite practices having for corners, and would sprinkle the animal's blood on the floor, which is the Israelite's normal practice.

#### **Parchment**

The Mizo-Chin-Kuki tradition mentions the possession of written scrip in the earlier time eaten up by the dog. According to the claimer of Israelite, it was the Torah Scroll in the Bible. Funeral rites, birth, and marriage ceremonies have similarities to ancient Judaism" (Zaithanchhungi: 2008, p.21). Three festivals celebrated annually, similar to Jews Chapchar Kut, Mim Kut, and Pawl Kut, are also compared with Israelites festivals.

#### **Main Players of the Movement**

Let us discuss in details, the Jewish organization in northeast India and other organization which fosters this movement:

#### **Amish**

Amish, the organization on behalf of Israel's dispersed, was founded in 1975 with Rabbi Zvi Yehuda Kook, head of 'Yeshivat Merkaz Harav' in Jerusalem, the religious Zionist movement. Rabbi Eliyahu Avichail was the director. He undertook painstakingly fifteen years to locate the lost tribes of Israel around the world. Amitav published academic

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works and Jewish laws on this matter that have been translated into several languages. Amitav continues its research and works to locate the Jewish People's descendants to ensure their successful settlement in Israel.

In 1979, Jewish groups from northeastern states of India initiated contact with Rabbi Eliyahu Avichail and his Amishav organization, searching for the lost tribes, hoping to bring them back to Judaism and help bring on the Messianic era. Rabbi Avichail proved very sympathetic to this community, identifying itself with one of the tribes and keen to follow Judaism. Until then, Judaism in Manipur and Mizoram had been largely creating members of the local community. Henceforth, Rabbi Avichail assumed the role of spiritual authority and gave Bnei Menashe to these people and guided them in their religious evolution.

In 1981, Rabbi Avichail made a trip to India to meet with members of the Bnei Menashe, and he encouraged the community to select two young men to go to Israel to study in a yeshiva. The two selected, Vanlalkhuma Chachuak (Gideon Rei) and Simeon Gin Vaiphei, arrived in Israel in January 1982. On their return to India, each took an active role in the spiritual development of the community. In 1988, Amishav arranged for a Beth Din to visit Bombay to conduct conversions.

Between 1989 and 2004, Rabbi Avichail and Amishav were responsible for the immigration of around 800 Bnei Menashe to Israel. But, they were not recognized as Jews when they arrived, and they were not entitled to the benefits enjoyed by most immigrants to Israel until they underwent a conversion. Rabbi Avichail assumed responsibility for finding sponsors to cover these new immigrants' airfares, their accommodation and work opportunities, and religious training to prepare them to appear before the Jewish leaders for conversion. Given their limited entitlements when they arrived in Israel, the Benei Menashe generally found such opportunities in Yehuda and Shomron's settlements on the West Bank, and in Gush Qattif, along the Gaza Strip, until its evacuation in August 2005.

### **Shavei**

Shavei (Returners of Israel) is an Israeli based Jewish organization that reaches out to descendants of Jews worldwide to strengthen their connection with Israel and the Jewish people. Founded by Michael Freund, Shavei Israel locates lost Jews and hidden Jewish communities and helps them return to their roots and, sometimes, with immigration. The organization's team is composed of academics, educators, and rabbis. From September 2004, Michael Freund took over from Amishav (Shavei.org). It established and financed Hebrew Centers in Manipur and Mizoram to train candidates for conversion. Shavei Israel hosted a delegation of rabbis from Israel who investigated the claims and the practices of the Benei Menashe, leading to the recognition of the group by Rabbi Amar, the apex authority.

The Shavei Israel organization seeks to help people who became separated from Judaism through cultural assimilation to reconnect with the Jewish people. Shavei Israel sponsors Rabbis and teachers to work with 'Lost Jews' to provide them the Jewish education and assist them for migration if they choose to. Its affiliated Rabbis are posted in Mallorca, Barcelona, Valencia, Granada, and Sevilla in Spain: Belmonte in northern Portugal, San Nicandro in southern Italy, Krakow Warsaw in Poland: Manipur, Mizoram, and Nagaland in India (Shavei.org).

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The organization supported the Bnei Menashe of India and was recognized as "descendants of Israel" by the Israeli Chief Rabbi in March 2005. Shavei Israel assisted with teachers in India. The organization assists immigrants with their integration into Israeli society. Some 7,200 Bnei Menashe in India hope to immigrate to Israel; the organization teaches them Hebrew and normative Judaism. As part of its educational efforts, the organization has published a series of books on Judaism in a dozen languages, including Chinese, Japanese, Mizo, Spanish, French, Portuguese, Russian and German (Bruder: 2008, p.143).

### **Zaithanchhungi**

She was an insurance saleswoman and former teacher. She wrote her travelogue in 1980. When she first visited Israel as a tourist, she did not see any semblance between the Mizo and Israelites. She was advised by Rabbi Avichail to research Mizo-Israel history. After returning from Israel, she did a thorough investigation of Mizo's practices of traditional religion and ancient Israel. She found many similarities, and in 1981 she returned to Israel to present her paper. Rabbi Avichail was convinced of her paper. Her paper was published in the booking form later on by the title "Mizo-Israel identity." It is interesting to note that she never converted to the Jewish religion, but she has interested in promoting Israelite identity among the Mizo. She welcomes every delegate from Israel. As she is hailing from the Mizo's influential family, her book and ideology spread the length and breadth of Mizoram. She is one of the pioneering missionaries to spread Jewish identity in north east India (Interview: Zaithanchhungi, 2015).

### **DNA Test**

In 2003, 350 genetic samples of Chin-Kuki-Mizo were tested in the Technion – Israel Institute of Technology of Haifa under Prof. Karl Skorecki. The result was not published. There were rumors that the result was negative. The Mizo research scholar Isaac Hmar Intoate, who helped collect the samples, said that no proof was found, which seemed to indicate a Middle Eastern origin for the Chin-Kuki-Mizo (Interview: Zimra Hnamte, 2015).

In December 2004, Kolkata's Central Forensic Science Laboratory posted a paper at Genome Biology on the Internet. They tested a total of 414 people, but they found no evidence among the men. Among the 50 women they tested, they found some evidence of Middle Eastern origin, which may have been an indicator of intermarriage during their migration period. The paper did not undergo peer review (Shavei.org).

### **Acceptance**

Although the DNA test could not give the expected genetic link, in April 2005, the Sephardi Rabbi Shlomo Amar, one of Israel's two chief rabbis, accepted the Bnei Menashe as descendants of one of the lost tribes, after years of review of their claims and other research (Biaksiana: 2003, p.159). His decision was significant because it allows all Bnei Menashe to immigrate as Jews to Israel under the Law of Return. Those who wanted to immigrate were required to undergo a formal, full conversion as their people had been separated from Judaism for so long. Shavei was involved in all this mass conversion and immigration process. A total of 1,700 Bnei Menashe moved to Israel, main settlements in the West Bank and Gaza Strip (until the disengagement in 2005). These areas offered them cheaper housing and living expenses than some others. Some have gained jobs as soldiers and nurses' aides for the elderly and infirm. More

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than 3500 people from Mizoram, Manipur, and Nagaland migrated into Israel (Shavei.org).

### **Controversy in India**

The rapid rise in conversions also provoked political controversy in Mizoram and the Indian government, as the changes were considered destabilizing in an area already characterized by separatist unrest. Dr. Biaksiana of the Aizawl Christian Research Centre said, "The mass conversion by foreign priests will pose a threat not only to social stability in the region but also to national security. A large number of people will forsake loyalty to the Union of India, as they all will become eligible for a foreign citizenship" (Biaksiana: 2003, p.59 ).

India expressed strong concern to Israel about the mass conversions, saying its laws prohibit such action. It wants to avoid religious conflicts in its diverse society. The Israeli government withdrew the team of the Rabbinical Court from India to continue good relations with India.

### **Conclusion**

As the Mizo's economic conditions were very bad till the 1960s, the Biblical story of the 'God chosen people,' 'The promised land of Israel with honey and milk' etc. was very attractive to them. They even composed many gospel songs referring to several places of Israel as their spiritual home. Emotionally, many people attached their dream, pointing towards Israel. The history of Israel's independence in 1948 and the subsequent framing up of 'Law of Return'<sup>3</sup> had spread far and wide worldwide. Around this time in 1951, Challianthanga, head deacon of the United Pentecostal Church in the village of Buallawn in Mizoram, had the alleged vision from God telling him the Mizo were descendants of the Israelites.

The problems of identity loom large as the Chin-Kuki-Mizo have never written a record of their past to trace back their roots. Furthermore, they never come under one chief and one dialect to have a clear cut identity. The British officials and outsiders coin most of the present self-identification for their administrative convenience.

The economic conditions of the migrated Chin-Kuki-Mizo are much better off than they were in northeast India. Unemployment is not a big issue in Israel. Michael Freund, the founder of Shavei, said that approximately 96% of Bnei Menashe immigrants are employed, supporting themselves and their families and contributing to the state and its economy. A mere 4%, less than half the national average, depends on social welfare to make ends meet. Nearly all young Bnei Menashe men are drafted into the army, with a majority serving in combat units. Out of 3500 migrated people, Manipur contributed almost 70 %. There are two reasons; one is security problems due to continuous ethnic conflict and underground activities. Second is the landholding system due to the chieftainship system in Manipur. As the chief is the landowner, the citizen could not utilize it according to their needs.

Israel is encircled by hostile Arab countries having a huge number of workforce. Due to the constant war with her neighbors, there is a security concern in their backyard. This volatile atmosphere prompted migration from Israel to European countries and the USA in a continuous flow. To regain their workforce by absorbing the lost tribe, who are loyal to them, is not a bad choice.

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