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Hoping all of you shall enjoy our endeavors and those of our contributors.

Editor



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Quantitative Estimation of Calcium and Magnesium in the Water Samples of Hanuman Ghat, Cremation Ghat and Imliya Ghat of Sone River at Dehri-on-Sone

Chanda Kumari*
Pramendra Kumar*
Anand Kishor*

Abstract

A scheme was undertaken to analyse the water quality of Sone river at three sites viz. Hanuman ghat, Cremation ghat and Imliya ghat near Dehri – on – Sone city. Sone river is the second largest of the Ganges Southern tributaries after Yamuna river. Sone river is about 784 Kilometres long. After heavy rains in the hills even this wide bed can not carry the waters of the Sone and disastrous floods in Shahabad, Gaya and Patna are not uncommon. The high concentrations were observed in the summer season. The concentrations of calcium for Hanuman ghat, Cremation ghat and Imliya ghat were in the range of 0.82 to 2.30 ppm, 0.80 to 2.50 ppm and 0.80 to 1.95 ppm respectively. The concentrations of magnesium for Hanuman ghat, Cremation ghat and Imliya ghat were in the range of 0.50 to 1.60 ppm, 0.50 to 1.50 ppm and 0.42 to 2.00 ppm respectively.

Keywords: Calcium, magnesium, river, water, Sone, Hanuman ghat, Cremation ghat, Imliya ghat.

Introduction

Sone river forms border line between the Bhojpuri and Magahi speaking regions of Bihar. Dehri-on-Sone also called Dehri had a population of 137231 according to the 2011 census. Pollutants are the residues of things which make use off and throw away. The main water pollutants are coming from residential and industrial area. The pollution of residential areas contain organic matter, phosphate, calcium, magnesium, nitrogen and suspended solids where as industrial areas contains heavy metals, phenols and oils. All these substances accumulates in the natural water like surface and ground water. The development of urbanization, industrialization and advanced agricultural practices, the contaminants are increased and rivers are polluted which markedly affects on plants and animals life in the rives. Generally water contains iron, calcium, magnesium, manganese, silica, fluoride, nitrate, phosphate, sulphate and chloride. When the quantity of these elements increase then they affect the body systems and cause destruction of health. A number of scientists viz. Balan *et al.* (2012), Khound *et al.* (2012), Rochman *et al.* (2013), Ambica (2014), Anwar and Aggarwal (2016), Kalakar *et al.* (2016) and Carpenter *et al.* (2018) have devised various parameters for measuring the pollution and purity of water.

Materials and Methods

The water samples were collected in plastic containers of 5 litre capacity. The plastic containers with lid were treated with HCl (1:1) for about 24 hours. The containers were thoroughly washed with tap water and finally with distilled water. At the time of sample collection, the containers were again washed with sample water. The collection was made from upper to lower course at Hanuman ghat, Cremation ghat and Imliya ghat during November' 2023 to April'2025. Calcium and magnesium were estimated by the method mentioned in IS:3025 (ISMST, 1964).

Results and Discussion

Experimental results showed that the concentrations of calcium for Hanuman ghat, Cremation ghat and Imliya ghat were in the range of 0.82 to 2.30 ppm, 0.80 to 2.50 ppm and 0.80 to 1.95 ppm respectively. The concentrations of magnesium for Hanuman ghat, Cremation ghat and

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Imliya ghat were in the range of 0.50 to 1.60 ppm 0.50 to 1.50 ppm and 0.42 to 2.00 ppm respectively. The high and low concentration of calcium was observed in the month of June' 2024 and August' 2024 at all the three ghats of water samples. The high concentration of magnesium was observed in the month of April'2025 in the water samples of Hanuman ghat and Cremation ghat as well as in the month of May'2024 at Imliya ghat. The low concentration of magnesium in the water samples were observed in the month of August'2024 at Hanuman ghat and Imliya ghat as well as in the month of September'2024 at Cremation ghat.

Table 1. Estimation of calcium and magnesium in the water samples of Hanuman ghat , Cremation ghat and Imliya ghat of Sone river at Dehri –on–Sone.

Sl. No.	Month and Year of Sampling	Sampling Time	Hanuman Ghat		Cremation Ghat		Imliya Ghat	
			Ca (mg/L)	Mg (mg/L)	Ca (mg/L)	Mg (mg/L)	Ca (mg/L)	Mg (mg/L)
1	November'2023	10:00	1.30	0.90	1.80	1.46	1.40	1.00
2	December'2023	10:30	1.30	0.80	1.35	0.94	1.35	1.10
3	January' 2024	09:30	1.20	0.80	1.45	0.98	1.40	1.00
4	April' 2024	10:10	2.20	1.04	1.73	1.14	1.35	1.10
5	May'2024	09:30	2.30	1.20	2.50	0.80	1.95	2.00
6	June' 2024	10:00	1.32	0.73	0.57	0.88	1.11	0.62
7	August' 2024	09:30	0.82	0.50	0.80	0.74	0.80	0.42
8	September'2024	10:00	0.90	0.60	0.90	0.50	0.85	0.56
9	November'2024	10:00	1.50	0.72	1.55	0.88	1.45	0.96
10	December'2024	10:30	1.30	0.73	1.53	1.08	1.55	0.96
11	January' 2025	10:20	1.64	0.09	1.54	1.30	1.53	1.30
12	March'2025	09:00	1.04	1.04	1.50	1.40	1.50	0.98
13	Apri l' 2025	09:00	2.00	1.60	1.83	1.50	1.55	1.30

The high concentrations were observed during summer months may probably due to low water level of river and high discharge of waste material from household drainage. The variation of calcium and magnesium concentration at different sites depend upon the type of agriculture, rurals and domestic discharges getting into the river and upon the seasonal fluctuation of the river. The concentration of calcium and magnesium for Hanuman ghat, Cremation ghat and Imliya ghat were found within permissible limits and therefore no problem. The observed value suggested that it is not good for drinking and domestic purposes but water is good for agriculture.

References

- Ambica A .2014. Ground water quality characteristics study by using water quality index in Tambaram area, Chennai, Tamil Nadu, Middle East. *Jour. Science Res.* **20** (11):1396 – 1401.
- Anwar K.M. and V. Aggarwal . 2014. Analysis of ground water quality of Aligarh city, India: using water quality index. *Curr. World Environ.* **9** (3) : 851-857.
- Balan I.N., M. Shivakumar and P.D.M. Kumar. 2012. An assessment of ground water quality using water quality index in Chennai, Tamil Nadu, India. *Chronicles Young Sci.* **3**(2): 146-150.
- Carpenter S.,A. Bhawsar and M.A Bhat. 2018.Comparative study of physicochemical characteristics of ground water and surface water in Bhopal city, India.*Int. Jorun. of Curr. Res. in Life Sciences.* **7**(2): 923-926.

- IS: 3025. 1964. Indian Standard Methods of Sampling and Test (Physical and Chemical) for water used in industry. **Indian Standards institution**, New Delhi – 2 .
- Kalkar N.,M.A. Bhat , A.Bhawsar and V. Vyas . 2016. Studies on ground water quality in Narsingharh area of Madhya Pradesh, India. **Archieves of Applied Sci. Res.** 8(7) : 12-15.
- Khound N., J.P. Phukon and K.G. Bhattacharyya. 2012. Physicochemical studies on surface water quality in the Jia Bharali River basin, North Bramputra plain, India. **Archieves of Applied Sci. Res.** 4(2):1169-1174.
- Rochman C., M. Brown, B.Halpern, B.Hentschel and E. Hoh . 2013. Classify plastic waste as hazardous. **Nature.** 494:169-171.



Impact of Foliar Spray of GA₃ (30 ppm and 60 ppm) on the Growth and Yield of Brinjal cv. Kiran

Rekha Kumari*
Anand Kishor*

Abstract

Brinjal (*Solanum melongena* L.) is an important solanaceous crop of India. The brinjal fruit are primarily consumed as cooked vegetable in various ways and dried shoots are used as fuel in rural areas. Brinjal is a good source of minerals and vitamins. A scheme was undertaken with a view to observe length of shoot, number of leaf, flower and fruit of 60 days, 120 days and 180 days old brinjal plants as well as the weight of fruit in the 180 days old brinjal plants. The experimental treatment included 30 ppm GA₃ and 60 ppm GA₃ and was sprayed on the plant twice i.e. before flowering stage and one week after flowering. The experiment was conducted in the open field with three replicates. The application of GA₃ (30 ppm and 60 ppm) promotes the vegetative growth as well as reproductive phase. The foliar spray with 30 ppm GA₃ and 60 ppm GA₃ increases the length of shoot, number of leaf, flower and fruit in 60 days, 120 days and 180 days old brinjal plants. The foliar-application treatments of 60 ppm GA₃ was found most effective in almost all the undertaken parameters viz. shoot length, number of leaf, flower, fruit and weight of fruit in comparison to control and 30 ppm GA₃. These findings suggest that spraying 60 ppm GA₃ on the brinjal plants can effectively promote the vegetative growth of brinjal plants as well as production of good size of brinjal fruits.

Key words: Shoot length, number, leaf, flower, fruit, weight, foliar spray, GA₃, brinjal plant.

Introduction

Brinjal (*Solanum melongena* L.) is an important vegetable crop grown extensively in tropical and temperate regions around the world. In India, it is one of the most common, popular and principal vegetable crops grown throughout the country except higher altitudes. Brinjal ranks among the most widely consumed vegetables, particularly in India, where it serves as a key crop for small-scale farmers, providing both nutrition and a reliable source of income (Singh *et al.*, 2011). The fruit is low in calories and rich in essential minerals viz. calcium, magnesium, potassium and iron (Arivazhagan *et al.*, 2018). Brinjal provides dietary fiber, vitamins, minerals, carbohydrates, and protein making it an important component of a balanced human diet. In the present study the concentrations of GA₃ i.e. 30 ppm and 60 ppm were sprayed twice, the first spray was done before flowering and the second spray was done after one week of flowering. By influencing physiological processes GA₃ can stimulate root and shoot development, enhance flower production, improved fruit size and promote early and uniform fruit set and ripening. Foliar sprays with NAA, IAA and GA₃ have consistently improved both yield and quality in many vegetable crops. GA₃ and NAA have frequently been demonstrated to enhance growth parameters and productivity in vegetable and other crops (Prajapati *et al.*, 2015 and Kaur *et al.*, 2018). In fact, GA₃ stimulates cell growth and elongation in very low concentrations, which considerably aids in the growth and development of plants (Bisht *et al.*, 2018). The aim of the current study was to determine the foliar application of GA₃ (30 ppm, and 60 ppm) affect the growth and physiological parameters, yield characteristics of brinjal cv. Kiran.

Materials and Methods

An experiment with pot cultures was carried out in the V.K.S. University, Ara campus using a simple randomized design under natural conditions. At 25 days after sowing the seeds, seedlings were transplanted into earthen pots. Two concentrations of GA₃ i.e. 30 ppm and 60 ppm were sprayed

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twice i.e. before flowering stage and one week after flowering. Tap water was sprayed on the control plants. The experiments were done in triplicate. Length of shoot, number of leaf, flower and fruit were noted after 60 days, 120 days and 180 days of plant growth. The weight of the fruit was noted after 180 days of plant growth. Three samples were randomly selected from each replicate in order to gather information related to above mentioned parameters.

Results and Discussion

Length of shoot was measured at 60 days, 120 days and 180 days. The maximum shoot length was recorded in 180 days old brinjal plants sprayed with 60 ppm GA₃ concentration. The minimum shoot length was recorded in the 60 days old plants sprayed with 30 ppm GA₃ concentration. The maximum number of leaf was observed in the 180 days old brinjal plants sprayed with 30 ppm concentration of GA₃ and the minimum number of leaf was observed in the 60 days old brinjal plants sprayed with 60 ppm GA₃ concentration. The number of flower was more in the control plants of 120 days while less number of flower was observed in the 120 days old brinjal plant sprayed with 60 ppm GA₃ concentration. There was no flower found in the 60 days old brinjal plants both in control as well as GA₃ sprayed plants. The number of fruit was more in the plants of 120 days and 180 days old sprayed with 60 ppm GA₃ concentration. The weight of fruit was observed more in the 180 days old brinjal plants sprayed with 60 ppm GA₃ concentration in comparison to the control plants of 180 days old. The foliar-application treatments of 60 ppm GA₃ was found most effective in almost all the undertaken parameters. These finding suggests that spraying 60 ppm GA₃ on the brinjal plants can effectively promotes the growth of brinjal plants and also help in production of good size of brinjal fruits.

Table1. Impact of foliar spray of GA₃ on shoot length , number of leaf, flower, fruit and weight of fruit after 60 days , 120 days and 180 days of brinjal plants growth.

Age of Plants	Concentration of GA ₃	Length of Shoot (cm/Plant)	Number of Leaf (Mean/Plant)	Number of Flower (Mean/Plant)	Number of Fruit (Mean/Plant)	Weight Fruit (Mean g/Plant)
60 Days	Control	14.83	4.33	-	-	-
	30 ppm	11.75	4.50	-	-	-
120 Days	Control	17.06	10.66	2	1	-
	30 ppm	20.32	7.75	1.5	1	-
180 Days	Control	20.32	10.33	-	1	17.2
	30 ppm	37.46	14.75	1.0	1	23.33
60 Days	Control	14.83	4.33	-	-	-
	60 ppm	12.14	3.40	-	-	-
120 Days	Control	17.06	10.66	2	1	-
	60 ppm	24.13	6.80	1	2	-
180 Days	Control	20.32	10.33	-	1	17.2
	60 ppm	51.66	14.00	1	1.33	43.33

The increase in the size of brinjal fruits may probably due to the action of GA₃ which promotes early flowering by accelerating the differentiation of floral buds and enhancing assimilate mobilization towards reproductive organs, resulting in a higher number of fruits per plant and increase fruit size. The effect of GA₃ on fruit set, enlargement, and uniform development contributes to higher fruit weight and overall yield. A number of worker including Kumar *et al.* (2024), Sadia *et al.* (2024) and Singh *et al.* (2021) reported similar trend of results in crop plants.

References

- Arivazhagan E, A. Kavitha and R. Kandasamy. 2018. Influence of plant growth regulators on growth characters of brinjal (*Solanum melongena* L.) cv. Annamalai. *Assian J. Hortic.* 13(2): 59-63.
- Bisht T.S. , L. Rawat, B. Chakraborty and V. VikashYadav. 2018. A recent advance in use of plant growth regulators (PGRs) in fruit crops-a review. *Int. J. Curr. Microbiol. Appl. Sci.* .7:1307-1336.

- Kaur P., D. Mal., A. Sheokand, Shweta , L. Singh and S. Datta. 2018. Role of plant growth regulators in vegetative production : a review . *Int. J. Curr. Microbial. Appli. Sci.* 7: 2177-2183.
- Kumar R., V. Sharma and S. Patel. 2024. Role of plant growth regulators in enhancing growth , yield and quality of brinjal (*Solanum melongena* L.) *Int. J. Agric .Sci.* 12 (3) : 345-352.
- Prajapati S., T. Jamkar, O.P. Singh, N. Raypuriya, R. Mandloi and P.K. Jain. 2015. Plant growth regulators in vegetable production: an overview. *Plant Arch.* 15:619-626.
- Sadia A., M. Rahman and M. Hussain. 2024. Foliar application of GA₃ and Zn in enhancing brinjal growth, yield, and fruit nutritional quality, *Bangladesh J. Agric. Res.* 49 (1) :78-91.
- Singh A ., B. K. Singh , A. K. Singh and V.K. Rai. 2011. Varietal response of NAA on growth and yield of brinjal (*Solanum melongena* L.). *Environ. Ecol.* 29(3):1036-1038.
- Singh D., R. Patel and P. Mehta .2021. Influence of plant growth regulators on flowering , fruiting, and yield of brinjal. *J. Agric. Sci.* 18 (4): 301-310.



Estimation of Ascorbic Acid and Total Phenol in Ghia Tori Vegetables during Maturation and Storage

Shushma*
Priti Singh*
Anand Kishor*

Abstract

Ghia tori (*Luffa cylindrica* L.) is widely grown on tropical areas, such as India, Asia, and Africa. Ghia tori is a fast growing annual vine. It is commonly known as sponge gourd or dishcloth gourd. It is widely cultivated for its versatile fibrous fruits. Young fruits of ghia tori are edible as vegetables. Mature dried fruits yield a natural fiber. Maturation and storage effect on nutritive contents of ghia tori are not well studied earlier. The vegetable dish of ghia tori is a good source of ascorbic acid. The present investigation is designed to study the changes in ascorbic acid and total phenol contents during maturation and storage. The concentration of ascorbic acid and total phenol was recorded to increase upto 10 days of maturation. The amount of ascorbic acid exceptionally continued to increase upto 14 days, however total phenol contents in the ghia tori vegetables showed declining trend after 10 days of maturation. The present findings clearly suggest that 10 days old ghia tori vegetables have maximum concentration of total phenol contents later on senescence phase starts. During storage period the ghia tori showed gradual declination in the concentration of ascorbic acid. The phenol contents in the ghia tori vegetables showed decreasing trend in storage.

Key words: Ascorbic acid, total phenol, maturation, storage, ghia tori.

Introduction

The nutritional importance of vegetables and their resistance to disease depend on their stored materials. Ascorbic acid, phenol and proteins have been recognized as important nutritive contents of vegetables which are organic compounds of different complexity. However, their presence varies considerably with the age and type of vegetables. The role of vitamin C in preventing and curing scurvy has been realized. Farmers are interested for cropping the ghia tori vegetables due to its increasing demand but losses as well as lowering in the quality due to fungal infection discourage them for planting ghia tori. The fungi degrade phenolic and ascorbic acid contents of the host during pathogenesis by triggering the activity of oxidase enzymes mainly phenol oxidase and ascorbic acid oxidase. The role of these enzymes has been referred by several earlier workers including Farkas and Kiraly (1954) Siegel and Galston (1955), Kaul *et al.* (1980) and Hare (1966). The control of diseases is urgently required. The age of ghia tori is important since it determines the nutritive quality of the vegetables. With this perspective it is proposed to conduct the present investigation.

Materials and Methods

Quantitative estimation of ascorbic acid and total phenol contents in the ghia tori vegetables during maturation and storage was observed. The ghia tori fruit of different ages i.e. 2,4,6,8, and 10 days were analysed to ascertain the changes in ascorbic acid and total phenol contents during maturation. 10 days old matured ghia tori fruits were harvested from the field and were stored in the laboratory for 8 days to study the changes in ascorbic acid and total phenol contents under storage. Ascorbic acid content in the ghia tori vegetables were estimated by the modified method of Roe and

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Kuether (1943). The amount of total phenol in the ghia tori vegetables were determined by the method of Singh *et al.* (1978).

Results and Discussion

2 days young ghia tori vegetables contained 0.86 mg/g fresh weight ascorbic acid which increase gradually with the advancement of age. On the 10th day of maturation the vegetables contained maximum amount i.e. 2.14 mg/g fresh weight of ascorbic acid. During the storage period the ghia tori vegetables showed gradual declination in the concentration of ascorbic acid and it was reduced to 1.74 mg/g fresh weight on 8th day of storage .

Table 1. Changes in ascorbic acid and total phenol contents of ghia tori vegetables during maturation and storage. (Expressed as mg/g Fresh Weight)

Contents	Regions of Vegetables	Age of vegetables (In Field)					Under Storage	
		2 Days	4 Days	6 Days	8 days	10 Days	14 Days	18 Days
Ascorbic Acid	Pedicellate	0.87	1.09	1.41	1.87	2.13	2.43	1.75
	Middle	0.86	1.11	1.40	1.85	2.15	2.42	1.73
	Stigmatic	0.85	1.10	1.39	1.86	2.14	2.41	1.74
	Average	0.86	1.10	1.40	1.86	2.14	2.42	1.74
Total Phenol	Pedicellate	0.25	0.37	0.47	0.55	0.67	0.49	0.48
	Middle	0.27	0.38	0.46	0.54	0.65	0.51	0.47
	Stigmatic	0.26	0.39	0.48	0.56	0.66	0.50	0.49
	Average	0.26	0.38	0.47	0.55	0.66	0.50	0.48

The increasing trend in ascorbic acid content during maturation might be due to greater potentiality for its synthesis than utilization for other biochemical process (Mapson, 1958 ; Singh and Tandon, 1971).

Gradual increase in total phenol was also recorded during maturation. The 2 days young ghia tori vegetables showed 0.26 mg/g fresh weight total phenol whereas after 10 days of maturation the ghia tori vegetables had 0.66 mg/g fresh weight total phenol. In storage the total phenol contents showed decreasing trend. On 4th day the ghia tori vegetables showed 0.50 mg/g fresh weight which decreased slightly on 8th day to 0.48 mg/g fresh weight.

The increasing trend of phenolics during maturation might be due to its synthesis (Towers, 1964).

References

- Farkas G. L. and T. Kiraley. 1958. Enzymological aspects of plant disease I. Oxidative enzymes. *Phytopathol. Z.* 31:251.
- Hare R.C. 1966. Physiology of resistance to fungal diseases in plants. *Bot. Rev.* 32:95-137.
- Kaul J. L. and R.O. Munjal . 1980. Studies on enzymes produced by fungi causing fruit rot of apple . Polyphenol oxidase and peroxidase activity in healthy and inoculated fruits. *Indian Phytopath.* 33:530-531.
- Mapson L.W. 1958. Metabolism of ascorbic acid in plants. Part-1. Functions. *Ann. Rev. Plant Physiol.* 9: 119-130.
- Roe J. H. and C. H. Kuether. 1943. *Hawk's Physiological Chemistry* (Eds. Bernard L . Oserd) 14th Edition . Tata Mc Graw Hill Publishing Company Ltd. Bombay , New Delhi (1965).

- Siegel S.M. and A.W. Galston. 1955. Peroxide genesis in plant tissue . *Biophys.* 54:102.
- Singh M., S.S. Singh and G.G. Sanwal .1978 . A new colorimetric method for the determination of phenolic. *Indian J. Exp. Biol.* 16(6) : 712-714.
- Singh R.H. and R.N. Tandon . 1971. Vitamin C content of guava fruits infected with *Aspergillus niger*. *Indian Phytopath.* 124:807-809.
- Towers G.H.N. 1964. “ *Biochemistry of phenolic compounds*”. Academic Press, London p.249.



Influence of Women's Empowerment on the Life Satisfaction of Women

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Prof. (Dr.) Asha Rani**

Abstract

Women's empowerment refers to the process of providing women with the authority, power, and opportunities that enable them to develop confidence, independence, and the ability to make decisions about their own lives. It aims to strengthen women's social, economic, and psychological position within society. In recent years, greater attention has been paid to the sociocultural conditions that shape women's lives and influence their life satisfaction, regardless of employment status. According to the World Health Organisation (WHO), women who are employed generally report higher levels of life satisfaction than those who are not employed. Life satisfaction can be understood as the extent to which a woman positively evaluates the overall quality of her life and experiences a sense of fulfilment across different aspects of their life.

Keywords: Women's empowerment, Life satisfaction.

Introduction

This study is a modest attempt to examine the influence of women's empowerment on life satisfaction across women's employment status. Women in India have deliberately been denied opportunities to empower themselves in the name of religion and socio-cultural customs and traditions. It is recognised that empowerment could be used as a tool for sustainable development in various fields, i.e. education and employment, decision making, power and authority and even in feeling a sense of responsibility to herself (Suchitra, et.al., 2021). Empowerment is an expansion in an individual's activity, i.e. expansion in one's education and employment to act and bring about change; her achievement can be judged in terms of her own values and objectives (Asfahani et.al., 2024). However, the socio-cultural conditions of women's lives and their life satisfaction are now receiving due attention across all employment statuses.

The concept of life satisfaction refers to the extent to which a woman positively evaluates the overall quality of her life. This evaluation encompasses life as a whole rather than focusing on specific domains such as education or employment status (Asadullah et al., 2019). It is important to distinguish between internal and external determinants of life satisfaction. Internal determinants refer to the intrinsic factors within an individual that influence their level of life satisfaction, independent of external environmental conditions. External determinants are factors within an individual's environment that influence the individual's mental health. Another important finding in this study was that the effect of unemployment on life satisfaction remained even after taking changes in income into account. Thus, it seems that other aspects of unemployment (i.e. a feeling of worthlessness) are important determinants of life satisfaction (Kundu, et.al., 2022). According to a study by the World Health Organisation (WHO), women who work have higher levels of life satisfaction.

The empowerment of women enables them to act as agents of change, influencing decisions and actions both within the family and in the broader social sphere, thereby impacting organisations and communities. Women can be empowered with the knowledge, skills, and self-confidence necessary to participate through education, which is one of the most important means. India is poised to become one of the most developed nations by 2047, with a focus on literacy, knowledge, and economic development. Women play a pivotal role in the overall development of a nation. The

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economic progress of any country is significantly influenced by the potential and participation of its women. **Jannah (2020)** emphasises that no society can achieve its full potential without making adequate investments in the development of women's capacities and actively promoting their empowerment. Despite this, in many developing countries, women continue to face substantial disparities in access to education, employment opportunities, income, and decision-making power compared to men. Thus, the position and status of women in a society serve as crucial indicators of its socio-economic development and cultural advancement.

Objectives of the study

This research was carried out with the following broad objectives:

1. To find out the relationship between women's empowerment and the life satisfaction of women.
2. To find out the relationship between the employment status of women and women's empowerment and life satisfaction.

Hypothesis:

The following hypotheses were formulated in light of the research objectives.

1. There will be a positive relationship between women's empowerment and the life satisfaction of women.
2. There will be a positive relationship between the employment of women and their empowerment.
3. There will be a positive relationship between life satisfaction and the employment of women.

Method:

Sample: - The subjects were 100 employed women from Chapra (Saran) and Siwan districts. The age range of subjects was 20 to 40 years, and they were undergraduates or graduates.

Research Tools:

(i) **Women's empowerment scale:** This scale is constructed and standardised by Dr. K. P. Nimbalkar and Dr. Kiran Nagtode

(ii) **Life satisfaction scale:** This scale is constructed and standardised by Dr. Alam, Q.G. and Srivastava, R. (2001).

(iii) **Personal data sheet**

Result and Discussion:

The response sheets of respondents were scored using the test manual, which was statistically analysed using correlation.

Table – 1
Relationship between empowerment and life satisfaction of women

Variables	N	r	p
Empowerment	100	.271	< .01
Life satisfaction			

Table 1 reveals that the relationship between women's empowerment and their life satisfaction is positively correlated, as .271 is highly correlated with each other and significant at the <.01 level. It means that the empowerment of women enhances better life satisfaction among them. Findings are also supported by **Kundu et.al. (2022)** that empowerment plays a vital role in the life satisfaction and mental health of women. Therefore, our first hypothesis was supported by the obtained result.

Table – 2
Relationship between employment and empowerment of women

Variables	N	r	p
Employment	100	.338	< .01
Empowerment			

Table 2 reveals that the relationship between women's empowerment and their employment is positively correlated, as .338 is highly correlated with each other and significant at the $<.01$ level. It means that the employment of women makes them more empowered. Findings are also supported by **Asfahani et.al. (2024); Asadullah et.al. (2019)** reveal that education and employment status are highly positively associated with empowerment of women. Therefore, our second hypothesis was supported by the obtained result.

Table – 3
Relationship between life satisfaction and employment of women

Variables	N	r	p
Life satisfaction	100	.199	$< .05$
Employment			

Table 3 reveals that the relationship between women's life satisfaction and their employment is correlated, as .199 is correlated with each other and significant at the $<.05$ level. It means that the employment of women enhances their life satisfaction. Findings are also supported by **Suchitra et.al. (2021)** that employment plays a vital role in the life satisfaction of women. Therefore, our third hypothesis was supported by the obtained result.

Conclusion: The study reveals that women's empowerment and life satisfaction of employed women are significantly associated. Empowered women have better life satisfaction.

References:

- Anne Samyukta, P. Swathi (2023).** *Grit, Life Satisfaction and Psychological Mental health Among Women Entrepreneurs*, *International Journal of Creative Research Thoughts (IJCRT)* www.ijcrt.org, © 2023 IJCRT | Volume 11, Issue 3 March 2023 | ISSN: 2320-2882
- Asadullah, N., Hossain, M. and Kambhampati, U. ORCID (2019):** <https://orcid.org/0000-0001-5906-2394> (2019). Empowerment and life satisfaction: evidence from Bangladesh. *World Development*, 122. pp. 170-183. ISSN 0305-750X doi: <https://doi.org/10.1016/j.worlddev.2019.05.013> Available at <https://centaur.reading.ac.uk/83819/>
- Asfahani, A.M.; Eskandarany, A.; Dahlan, D.A.; Ullah, Z.; Khan, H.; Naheed, R. (2024).** *Empowering Women in Saudi Workforce: HR, Job Satisfaction, and Policies for Work–Life Balance*. *Sustain education and employment* 2024, 16, 8826. <https://doi.org/10.3390/su16208826>
- Devdiscourse: Closing the Gender Gap (2024).** *How Social Protection Programs Drive Equality and Economic Empowerment*, <https://www.devdiscourse.com/article/international/3130535>.
- Dilip Shivane (2024).** *Study of Stress, Mental health and Satisfaction Level among in Women*, *International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)* *International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal* Volume 4, Issue 1, January 2024
- Jannah, Nadia (2020).** *Analysing the Role of Education in Women Empowerment in Bangladesh*, *THESIS*, Submitted to KDI School of Public Policy and Management, In Partial Fulfilment of the Requirements for the Degree of MASTER OF PUBLIC MANAGEMENT, 2020
- Kundu P, George LS, Yashodhara R.(2022).** *Quality of life and empowerment among women*. *J Edu Health Promot* 2022;11:185.
- Suchitra Barik, Prangya P. P. Das, Sangeeta Rath (2021).** *Life satisfaction in Indian women: The role of employment status and emotional intelligence*, *Indian Journal of Psychological Science* Vol-14, No. 1, (Jan-2021) ISSN-0976 9218
- World employment and social outlook - Trends (2022).** Geneva: International Labour Organization; (2022). ([https://www.ilo.org/global/research/global-reports/weso/trends2022/WCMS_834081/lang--en/index.htm](https://www.ilo.org/global/research/global-reports/weso/trends2022/WCMS_834081/lang-en/index.htm), accessed 26 August 2022).
- Yasmin, Khan and Jehan (2024).** *Determinants of Objective and Subjective Wellbeing of Working and Non-Working Women: A Case Study of Rawalpindi, Punjab, Pakistan*, *Forman Journal of Economic Studies* Vol. 20(1), 2024 (January–June), pp. 1-21.



The Impact of Mindfulness Practices on Managing Stress Levels

Dr. Arti Kumari*

Abstract:

Stress has become a pervasive psychological concern affecting individuals across academic, professional, and personal domains, particularly among young adults navigating transitional life stages. Increasing exposure to academic pressure, uncertainty, and social expectations has intensified the need for effective stress management strategies. Mindfulness practices, characterized by present-moment awareness and non-judgmental acceptance, have emerged as a scientifically supported approach to enhancing psychological well-being. The present empirical study investigates the impact of mindfulness practices on managing stress levels among young adults.

A quantitative, cross-sectional research design was employed, and primary data were collected from 120 respondents using a structured questionnaire. Standardized instruments, including a mindfulness scale and the Perceived Stress Scale (PSS), were utilized. Data analysis was conducted using descriptive statistics, reliability analysis (Cronbach's alpha), Pearson correlation, and linear regression to ensure alignment with the study objectives and hypotheses.

The findings indicate that respondents exhibit moderate levels of mindfulness and stress. Reliability analysis confirms strong internal consistency of the scales. Correlation results reveal a significant negative relationship between mindfulness and stress, suggesting that higher mindfulness is associated with lower perceived stress levels. Regression analysis further demonstrates that mindfulness significantly predicts stress, explaining a substantial proportion of variance in stress scores.

The study contributes to existing literature by providing empirical evidence supporting mindfulness as an effective stress management tool. It emphasizes the practical implications of integrating mindfulness-based interventions in academic and organizational contexts to promote emotional resilience and well-being. Despite limitations such as reliance on self-reported data and a cross-sectional design, the study offers meaningful insights into psychological coping mechanisms among young adults.

The findings underscore the importance of adopting mindfulness practices as a sustainable strategy for stress reduction. Future research may employ longitudinal and experimental designs to establish causal relationships and broaden applicability.

Keywords: Mindfulness, Stress Management, Perceived Stress, Psychological Well-being, Young Adults

1. Introduction

Stress is an inherent aspect of modern life, arising from the dynamic interaction between individuals and their environment. While a certain level of stress can enhance motivation and performance, chronic stress poses significant risks to both mental and physical health. Young adults, in particular, are increasingly vulnerable due to academic demands, career uncertainty, and evolving social roles.

The conceptualization of stress has evolved significantly with contributions from psychological theories such as the cognitive appraisal model, which emphasizes that stress is determined by an individual's perception of a situation rather than the situation itself. This perspective highlights the importance of cognitive and emotional regulation in stress management.

In this context, mindfulness has emerged as a powerful psychological construct. Mindfulness refers to the process of consciously bringing attention to present experiences with an attitude of

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openness, curiosity, and acceptance. It involves observing thoughts and emotions without reacting impulsively or engaging in judgment.

The integration of mindfulness into scientific research gained momentum through the development of Mindfulness-Based Stress Reduction (MBSR) programs by Jon Kabat-Zinn. These interventions have demonstrated effectiveness in reducing stress, anxiety, and depression across diverse populations.

Mindfulness practices such as meditation, breathing exercises, and body scanning enhance awareness and improve emotional regulation. By shifting individuals' responses to stressors, mindfulness reduces the intensity and frequency of stress experiences.

Despite growing global interest, empirical studies focusing on young adults in developing contexts remain limited. This study addresses this gap by examining the relationship between mindfulness practices and stress levels using primary data and statistical analysis.

2. Review of Literature

The effectiveness of mindfulness in stress management has been extensively supported by empirical research. **Jon Kabat-Zinn (1990)** introduced mindfulness into clinical practice through MBSR programs, demonstrating significant reductions in stress and improvements in well-being among participants with chronic conditions. **Cohen et al. (1983)** developed the Perceived Stress Scale (PSS), which remains one of the most widely used instruments for assessing stress perception in psychological research.

Baer (2003) reviewed mindfulness-based interventions and concluded that they effectively reduce stress, anxiety, and depressive symptoms across various populations. The study highlighted mindfulness as a versatile therapeutic tool. **Brown and Ryan (2003)** empirically demonstrated that mindfulness is positively associated with psychological well-being and negatively correlated with stress, emphasizing its role in self-regulation.

Grossman et al. (2004) conducted a meta-analysis and found that mindfulness-based stress reduction programs significantly improve mental health outcomes, particularly stress reduction. **Shapiro et al. (2006)** proposed a theoretical model explaining mindfulness mechanisms, including attention regulation, emotional awareness, and cognitive flexibility, all of which contribute to stress reduction.

Chiesa and Serretti (2009) conducted a systematic review and confirmed that mindfulness meditation effectively reduces stress in both clinical and non-clinical populations. More recent studies have strengthened this evidence. **Khoury et al. (2015)** found mindfulness-based therapy to be moderately effective in reducing stress across diverse settings. **Creswell (2017)** highlighted neurobiological mechanisms underlying mindfulness, including reduced activity in stress-related brain regions. Although the literature strongly supports mindfulness as a stress reduction tool, there remains a need for empirical validation using primary data, particularly among young adults in non-Western contexts.

3. Objectives of the Study

1. To assess the level of mindfulness practices among young adults.
2. To evaluate the perceived stress levels of respondents.
3. To examine the relationship between mindfulness practices and stress levels.
4. To analyze the impact of mindfulness practices on stress reduction.

4. Hypotheses

- a. **H1:** There is a significant relationship between mindfulness practices and stress levels.
- b. **H2:** Mindfulness practices significantly predict stress levels.

5. Research Methodology

The study adopts a quantitative, descriptive, and cross-sectional research design. Primary data were collected from 120 young adults through convenience sampling. A structured questionnaire was used, comprising a mindfulness scale and the Perceived Stress Scale (PSS). Responses were recorded on a 5-point Likert scale. Reliability analysis using Cronbach's alpha was conducted to

ensure internal consistency of the scales. Data were analyzed using descriptive statistics to assess levels of mindfulness and stress, Pearson correlation to examine relationships, and linear regression analysis to determine the predictive impact of mindfulness on stress levels.

6. Data Analysis and Interpretation

The data collected for the study were analyzed systematically using reliability analysis, descriptive statistics, Pearson correlation, and linear regression. Each analytical technique was selected in alignment with the objectives and hypotheses of the study to ensure logical consistency and empirical rigor.

6.1 Reliability Analysis

Table 1
Reliability Statistics

Scale	No. of Items	Cronbach's Alpha
Mindfulness	10	0.87
Stress (PSS)	10	0.84

Interpretation

Reliability analysis was conducted to evaluate the internal consistency of the measurement instruments used in the study. Cronbach's alpha coefficient was employed as a measure of scale reliability, as it determines the extent to which items within a scale are interrelated and collectively measure the same underlying construct. The mindfulness scale yielded a Cronbach's alpha value of 0.87, while the Perceived Stress Scale (PSS) reported a value of 0.84. Both values exceed the commonly accepted threshold of 0.70, indicating a high level of internal consistency.

This suggests that the items included in both scales are highly reliable and produce consistent responses across the sample. In practical terms, this means that respondents interpreted and responded to the items in a stable and coherent manner, thereby minimizing measurement error. The high reliability of the instruments enhances the credibility of subsequent analyses, ensuring that the relationships observed between mindfulness and stress are not artifacts of inconsistent measurement but reflect genuine patterns in the data.

6.2 Descriptive Statistics

Table 2
Descriptive Statistics

Variable	Mean	Std. Deviation	Minimum	Maximum
Mindfulness	3.72	0.68	2.10	4.85
Stress	2.88	0.79	1.40	4.60

Interpretation

Descriptive statistics were computed to examine the general level and distribution of mindfulness and stress among the respondents. The mean score for mindfulness was found to be 3.72, indicating that, on average, participants exhibit a moderately high level of mindfulness. This suggests that respondents possess a reasonable degree of awareness and engagement in present-moment experiences, reflecting a certain familiarity with or inclination toward mindful behaviors.

In contrast, the mean stress score was 2.88, which indicates a moderate level of perceived stress among the participants. This implies that while respondents are not experiencing extreme stress, they are nonetheless exposed to noticeable levels of psychological strain. The coexistence of moderate mindfulness and moderate stress levels provides an appropriate context for examining the relationship between these two variables.

The standard deviation values for mindfulness (0.68) and stress (0.79) indicate a moderate spread of responses around the mean. This suggests that while there is some variability in how individuals experience mindfulness and stress, the responses are not excessively dispersed, reflecting a relatively homogeneous sample. Additionally, the range of scores (minimum and maximum values) demonstrates that responses are well distributed across the scale, with no evidence of extreme clustering or outliers.

6.3 Correlation Analysis

Table 3
Pearson Correlation Matrix

Variables	Mindfulness	Stress
Mindfulness	1	-0.65**
Stress	-0.65**	1

(**p < 0.01)

Interpretation

Pearson correlation analysis was conducted to examine the nature and strength of the relationship between mindfulness and stress levels. The correlation coefficient between mindfulness and stress was found to be -0.65, indicating a strong negative relationship between the two variables. This negative value suggests that as mindfulness increases, stress levels tend to decrease, and vice versa.

The strength of the correlation ($|r| = 0.65$) is considered substantial in behavioral and social science research, implying that the relationship between mindfulness and stress is not weak or incidental but rather meaningful and practically significant. Furthermore, the correlation was found to be statistically significant at the 0.01 level ($p < 0.01$), indicating that the probability of obtaining this result by chance is extremely low.

From a psychological perspective, this finding implies that individuals who are more mindful are better equipped to manage their emotional responses and cope with stressors effectively. Mindfulness enables individuals to observe their thoughts and feelings without becoming overwhelmed, thereby reducing the intensity of stress experiences. The results provide strong empirical support for accepting the alternative hypothesis (H1), which states that there is a significant relationship between mindfulness practices and stress levels.

6.4 Regression Analysis

Regression analysis was performed to determine whether mindfulness practices significantly predict stress levels and to quantify the extent of their impact.

Table 4A
Model Summary

R	R ²	Adjusted R ²	Std. Error
0.65	0.42	0.41	0.61

Interpretation

The model summary provides an overview of how well mindfulness predicts stress levels. The correlation coefficient ($R = 0.65$) indicates a strong overall relationship between the predictor variable (mindfulness) and the dependent variable (stress). The coefficient of determination ($R^2 = 0.42$) reveals that approximately 42% of the variance in stress levels can be explained by mindfulness practices.

This is a substantial proportion in the context of behavioral research, where human behavior is influenced by multiple factors. The adjusted R^2 value of 0.41 further confirms the robustness of the model, indicating that the explanatory power remains stable even after adjusting for sample size. These findings suggest that mindfulness is a major contributing factor in determining stress levels, although other variables not included in the model may also play a role.

Table 4B
ANOVA

Source	SS	df	MS	F	Sig.
Regression	31.85	1	31.85	85.32	0.000
Residual	43.21	118	0.37		
Total	75.06	119			

Interpretation

The ANOVA results test the overall significance of the regression model. The F-value of 85.32 is considerably high, indicating that the model explains a significant portion of the variance in stress levels. The associated p-value (0.000) is well below the threshold of 0.05, confirming that the model is statistically significant. This means that the regression model provides a significantly better fit to the data compared to a model with no predictors. In other words, mindfulness practices meaningfully contribute to predicting stress levels and are not merely incidental factors.

Table 4C
Coefficients

Variable	B	Beta	t-value	Sig.
Constant	5.12	—	14.20	0.000
Mindfulness	-0.60	-0.65	-9.23	0.000

Interpretation

The coefficient table provides detailed insights into the nature and magnitude of the relationship between mindfulness and stress. The unstandardized coefficient (B = -0.60) indicates that for every one-unit increase in mindfulness, stress decreases by 0.60 units, holding other factors constant. This reflects a direct and measurable impact of mindfulness on stress reduction. The standardized beta coefficient (-0.65) further confirms the strength of this relationship, indicating that mindfulness has a strong negative effect on stress levels when variables are standardized. The t-value of -9.23 is highly significant, and the corresponding p-value (0.000) confirms that mindfulness is a statistically significant predictor of stress. These results provide strong evidence for accepting the alternative hypothesis (H2), which states that mindfulness practices significantly predict stress levels.

7. Discussion

The present study set out to examine the relationship between mindfulness practices and stress levels among young adults, with a particular focus on determining whether mindfulness significantly contributes to stress reduction. The findings derived from the statistical analysis provide strong empirical support for the proposed relationships and offer meaningful insights into the psychological mechanisms underlying stress management.

The descriptive results indicated that respondents reported moderately high levels of mindfulness alongside moderate levels of perceived stress. This combination is important because it reflects a realistic psychological profile rather than an extreme or biased sample. It suggests that while individuals are somewhat aware of mindfulness practices, they continue to experience stress, thereby creating a meaningful context to examine how mindfulness influences stress levels.

The correlation analysis revealed a strong and statistically significant negative relationship between mindfulness and stress ($r = -0.65$, $p < 0.01$). This finding clearly indicates that individuals who demonstrate higher levels of mindfulness tend to experience lower levels of perceived stress. The strength of this relationship is substantial in the context of behavioral sciences, suggesting that mindfulness is not merely a peripheral factor but a central component in stress management. These findings are consistent with the work of **Brown and Ryan (2003)**, who established that mindfulness enhances emotional regulation and reduces psychological distress. The results also align with meta-analytical evidence reported by **Grossman et al. (2004)**, which highlighted the effectiveness of mindfulness-based interventions in reducing stress.

The regression analysis further strengthens these findings by demonstrating that mindfulness is a significant predictor of stress levels. The model explained 42% of the variance in stress ($R^2 = 0.42$), which is considerable given the complexity of human behavior and the multiple factors influencing stress. This indicates that mindfulness alone accounts for a large proportion of changes in stress levels, reinforcing its importance as a psychological resource. The negative regression coefficient confirms that increases in mindfulness lead to measurable decreases in stress, thereby establishing a directional and impactful relationship.

These findings provide empirical support for theoretical frameworks proposed by **Shauna Shapiro et al. (2006)**, which suggest that mindfulness reduces stress through mechanisms such as enhanced attention regulation, increased emotional awareness, and improved cognitive flexibility. By fostering a non-judgmental awareness of present experiences, mindfulness allows individuals to disengage from automatic negative thought patterns and respond to stressors in a more adaptive manner. This reduces both the intensity and frequency of stress experiences.

The results are also consistent with more recent research, including the work of **Creswell (2017)**, who emphasized the neurobiological basis of mindfulness in reducing stress. According to this perspective, mindfulness practices are associated with reduced activation in brain regions linked to stress and increased activity in areas responsible for emotional regulation. This provides a physiological explanation for the observed statistical relationship between mindfulness and stress.

From a practical standpoint, the findings have significant implications for educational institutions and organizations. Given that mindfulness explains a substantial portion of stress variation, incorporating mindfulness-based programs such as meditation sessions, breathing exercises, and awareness training can be an effective strategy for enhancing well-being. These interventions are not only cost-effective but also sustainable, making them suitable for large-scale implementation.

Despite the strong findings, it is important to acknowledge certain limitations. The study relies on self-reported data, which may be influenced by response bias. Additionally, the cross-sectional design limits the ability to establish causality. While the results strongly suggest that mindfulness reduces stress, longitudinal or experimental studies would be required to confirm causal relationships.

8. Conclusion

The present study aimed to empirically examine the impact of mindfulness practices on managing stress levels among young adults. Drawing on primary data and employing statistical techniques such as descriptive analysis, correlation, and regression, the study provides clear and consistent evidence supporting the effectiveness of mindfulness as a stress management strategy.

The findings indicate that respondents exhibit moderate levels of both mindfulness and perceived stress, reflecting a realistic psychological state in which individuals are aware of mindfulness practices yet continue to experience stress. More importantly, the results establish a strong and statistically significant negative relationship between mindfulness and stress, demonstrating that individuals with higher mindfulness tend to report lower levels of perceived stress. This relationship was further reinforced through regression analysis, which revealed that mindfulness significantly predicts stress levels and accounts for a substantial proportion of variance in stress.

These findings confirm that mindfulness is not merely associated with stress reduction but plays an active and meaningful role in shaping how individuals perceive and respond to stressors. By promoting present-moment awareness and non-judgmental acceptance, mindfulness enhances emotional regulation and reduces the intensity of stress experiences. The study therefore validates mindfulness as a powerful psychological resource for improving well-being among young adults.

From a practical perspective, the results suggest that integrating mindfulness-based interventions into academic and organizational settings can be highly beneficial. Structured programs focusing on meditation, breathing techniques, and awareness training can help individuals develop healthier coping mechanisms and improve overall mental health.

However, the study is not without limitations. The use of self-reported data may introduce response bias, and the cross-sectional design restricts the ability to establish causal relationships. Future research should consider longitudinal and experimental designs to provide deeper insights into the long-term effects of mindfulness practices.

References

- Baer, R. A. (2003). Mindfulness training as a clinical intervention. *Clinical Psychology: Science and Practice*, 10(2), 125–143.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present. *Journal of Personality and Social Psychology*, 84(4), 822–848.
- Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction. *Journal of Alternative and Complementary Medicine*, 15(5), 593–600.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). Perceived stress scale. *Journal of Health and Social Behavior*, 24(4), 385–396.
- Creswell, J. D. (2017). Mindfulness interventions. *Annual Review of Psychology*, 68, 491–516.
- Grossman, P., et al. (2004). MBSR meta-analysis. *Journal of Psychosomatic Research*, 57(1), 35–43.
- Kabat-Zinn, J. (1990). *Full catastrophe living*.
- Khoury, B., et al. (2015). Mindfulness-based therapy. *Clinical Psychology Review*, 33, 763–771.
- Shapiro, S. L., et al. (2006). Mechanisms of mindfulness. *Journal of Clinical Psychology*, 62(3), 373–386.



Examining the 'Green Premium' Paradox: Discrepancies Between Consumer Price Willingness and Real Purchasing Habits for Sustainable FMCG Packaging

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Abstract

The current global marketplace has experienced a swift change in consumer awareness about environmental sustainability, ethical consumption, and ecological responsibility. In light of the rising environmental issues caused by plastic waste, carbon emissions, and unsustainable industrial practices, Fast-Moving Consumer Goods (FMCG) companies are increasingly turning to sustainable packaging options like biodegradable materials, recyclable containers, compostable wraps, and reusable systems. Despite the heightened environmental awareness and public support for green products, a notable discrepancy persists between consumers' expressed willingness to pay extra for sustainable packaging and their actual buying behavior, a phenomenon known as the "Green Premium Paradox." This research aims to critically analyze this paradox by investigating the gap between consumer attitudes, stated intentions, and real purchasing behavior related to sustainable FMCG packaging.

The green premium refers to the extra cost that consumers are anticipated to pay for environmentally friendly products or packaging compared to traditional options. Various surveys indicate that consumers often assert their support for environmentally responsible brands and show a willingness to spend more for eco-friendly packaging. However, actual purchasing decisions reveal that many consumers prioritize economic factors such as convenience, price, brand familiarity, and product quality over environmental considerations. This inconsistency poses a strategic challenge for FMCG companies aiming to shift towards sustainable business practices while remaining profitable and competitive.

The main goal of this research is to explore the psychological, economic, social, and behavioral factors contributing to the divergence between consumer price willingness and actual purchasing behavior regarding sustainable FMCG packaging. The study seeks to understand why consumers often verbally endorse green initiatives without translating those intentions into purchases. Additionally, it examines how factors such as income level, environmental awareness, perceived product quality, trust in sustainability claims, social influence, price sensitivity, and perceived value influence consumer behavior related to sustainable packaging.

This research is based on the theoretical frameworks of the Theory of Planned Behavior (TPB), Green Consumer Behavior Theory, and Behavioral Economics, which collectively elucidate how consumer intentions are influenced by attitudes, subjective norms, perceived behavioral control, emotional values, and situational constraints. The study emphasizes the attitude-behavior gap, whereby positive environmental attitudes do not consistently result in green purchasing decisions due to practical challenges and cognitive dissonance. Behavioral economic concepts like loss aversion, bounded rationality, and perceived sacrifice further clarify why consumers hesitate to pay extra for sustainable options, even when they recognize their environmental merits.

Employing a mixed-method approach that combines qualitative and quantitative techniques, primary data will be gathered through structured questionnaires, consumer surveys, interviews, and observational studies among FMCG consumers in urban and semi-urban areas. Statistical methods such as regression analysis, factor analysis, and correlation modeling will help identify links between consumer willingness and actual buying behavior. The research may also segment demographics to

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investigate differences in green purchasing behavior across various age groups, income levels, educational backgrounds, and occupations. Secondary data from industry reports, sustainability studies, academic journals, and FMCG market analyses will substantiate the research findings.

The anticipated findings of the study indicate that, while consumer awareness of environmental issues has risen, price remains a key factor influencing purchasing decisions in the FMCG sector. Consumers are inclined to choose sustainable packaging mainly when the price difference is minor or when the product offers additional benefits like quality assurance, health safety, convenience, or enhanced social status. Moreover, skepticism towards greenwashing and misleading sustainability claims often diminishes consumer trust in eco-friendly products. The research also expects to find that higher-income and better-educated consumers show a greater alignment between their environmental intentions and their purchasing behavior than those from lower-income backgrounds.

Additionally, the study will explore the strategic implications of the Green Premium Paradox for FMCG companies, policymakers, and sustainability advocates. For businesses, this paradox underscores the need to balance environmental responsibility with affordability and consumer convenience. Companies might need to implement innovative pricing strategies, clear sustainability messaging, eco-labeling, and consumer education initiatives to narrow the behavioral gap. Policymakers can promote sustainable consumption through subsidies, tax incentives, environmental regulations, and awareness campaigns encouraging green purchasing. The study highlights the importance of developing cost-effective sustainable packaging technologies to make such options more accessible to the general market.

This research contributes to the expanding literature on sustainable consumer behavior, green marketing, and environmental economics. By investigating the gap between consumers' stated environmental concerns and their actual behaviors, it provides insightful perspectives on the intricacies of consumer decision-making in the FMCG sector. It enriches academic discourse by merging behavioral theories with sustainability practices while offering practical recommendations for improving green marketing effectiveness. The study is particularly relevant in rapidly urbanizing economies like India, where rising consumption patterns and environmental challenges heighten the demand for sustainable industrial practices.

In conclusion, the Green Premium Paradox presents a significant obstacle to achieving sustainable consumption and circular economic development in the FMCG sector. While consumers increasingly endorse environmentally responsible products, their buying decisions remain heavily influenced by economic and situational factors. Addressing this paradox necessitates collective efforts from businesses, governments, researchers, and consumers to cultivate a market environment where sustainability is economically viable, socially appealing, and behaviorally convenient. This study thus aims to bridge the gap between environmental intentions and consumer actions by deepening the understanding of the factors that influence sustainable purchasing behavior in today's FMCG marketplace..

Keywords: Green Premium, Sustainable Packaging, FMCG Industry, Consumer Buying Behavior, Green Consumerism, Eco-friendly Packaging, Environmental Sustainability, Purchase Intention, Actual Purchase Behavior, Attitude-Behavior Gap, Green Marketing, Consumer Price Sensitivity, Sustainable Consumption, Ethical Consumerism, Packaging Innovation, Circular Economy, Consumer Perception, Willingness to Pay (WTP), Green Branding, Eco-conscious Consumers, Behavioral Economics, Environmental Awareness, Greenwashing

Introduction

The current business landscape has undergone substantial change due to growing environmental worries, increased awareness of climate change, and rising consumer demand for sustainable products. In this context, the Fast-Moving Consumer Goods (FMCG) sector stands out as a pivotal player in promoting environmental sustainability, largely due to its heavy reliance on

packaging materials, particularly plastics and non-biodegradable items. While packaging is essential for protecting products, branding, transporting goods, and communicating with consumers, the prevalence of excessive and unsustainable packaging presents a major global environmental issue.

In response, governments, environmental groups, and large corporations have prioritized the implementation of sustainable packaging practices. This approach typically involves using recyclable, reusable, biodegradable, compostable, or eco-friendly materials aimed at reducing ecological impact. Many FMCG brands now market their goods as "green," "eco-friendly," or "sustainably packaged" to attract environmentally minded consumers.

However, a significant contradiction has surfaced in consumer behavior research. Many consumers express a willingness to pay a "green premium" for environmentally sustainable products and packaging. Yet, purchasing data often reveals that consumers opt for cheaper conventional alternatives rather than sustainable options. This discrepancy between consumers' intentions and their actual buying habits is referred to as the "Green Premium Paradox."

This paradox raises critical questions for both academics and practitioners regarding the effectiveness of green marketing, the reliability of consumer attitudes toward sustainability, and the economic factors that influence purchasing decisions. This study aims to investigate the reasons behind the divide between consumers' expressed environmental concerns and their actual purchasing behavior in the FMCG sector.

Understanding Green Premium

The "Green Premium" describes the extra cost consumers are expected to pay for environmentally sustainable products or services compared to traditional options. Creating sustainable FMCG packaging often incurs higher production costs associated with eco-friendly materials, recycling technologies, and sustainable supply chains.

For instance:

- A shampoo bottle made from recycled plastic may cost more than a standard plastic bottle.
- Biodegradable food packaging might be pricier than conventional options.
- Paper-based alternatives may involve higher manufacturing and transport costs.

Companies tend to pass these added costs onto consumers, resulting in slightly higher prices.

Although surveys indicate that consumers are often willing to bear these costs for sustainability, actual shopping behaviors frequently reveal a preference for affordability and convenience over eco-friendliness.

Concept of Sustainable FMCG Packaging

Sustainable packaging encompasses options that minimize environmental impact throughout a product's lifecycle, including:

- Recyclable packaging
- Biodegradable materials
- Compostable options
- Reusable packaging solutions
- Reduced plastic usage
- Utilization of renewable materials

The aims of sustainable packaging are to:

- Decrease waste
- Lower carbon emissions
- Conserve resources
- Promote a circular economy
- Mitigate plastic pollution

Larger FMCG companies, like Unilever, Nestlé, and Procter & Gamble, have implemented sustainable packaging strategies to enhance their environmental impact and corporate reputation.

Research Problem

Although consumers increasingly advocate for environmental sustainability, their actual purchasing decisions often contradict their stated beliefs. While they may appreciate eco-friendly products from an emotional and moral standpoint, practical factors such as price sensitivity, convenience, trust issues, and product availability significantly influence their final choices.

The central research question is:

Why do consumers express a willingness to pay for sustainable FMCG packaging but fail to consistently buy sustainably packaged products in real market contexts?

This contradiction creates uncertainty for businesses investing in sustainable packaging innovations.

Objectives of the Study

The study has several key objectives:

- To assess consumer awareness of sustainable FMCG packaging.
- To analyze willingness to pay green premiums.
- To identify factors influencing actual purchasing decisions.
- To explore the disparity between environmental attitudes and purchase behaviors.
- To examine the role of demographic variables on green purchasing habits.
- To propose strategies for enhancing sustainable consumption.

Research Questions

The study aims to answer key questions:

- Are consumers genuinely willing to pay more for sustainable packaging?
- Why does this willingness not consistently translate into purchasing actions?
- Which factors have the most influence on sustainable buying decisions?
- How do income levels and price sensitivity affect green consumption?
- What impact does trust in environmental claims have on purchasing behavior?

Literature Review

Numerous studies have investigated green consumer behavior and sustainability in purchasing patterns.

Environmental Attitude and Consumer Behavior

Research shows that consumers are becoming increasingly aware of environmental issues like plastic pollution and climate change. Eco-conscious consumers often hold favorable views towards green products. However, scholars argue that positive attitudes alone do not ensure sustainable purchasing behavior, highlighting the "attitude-behavior gap" as a key research area.

Price Sensitivity and Green Purchasing

Research indicates that consumers exhibit high sensitivity to price differences in FMCG products. Given the frequency of these purchases, even minor price hikes can deter consumers from choosing sustainable options. Consumers may ideologically support sustainability but hesitate when faced with regular financial commitments.

Trust and Greenwashing

Consumer skepticism regarding environmental claims is significant. Many companies practice "greenwashing," marketing products as green without meaningful sustainability benefits, which undermines consumer trust and lessens their inclination to buy eco-friendly products.

Influence of Demographic Variables

Studies show demographic factors such as:

- Younger consumers typically exhibit stronger environmental concerns.
- Higher educational levels correlate with greater sustainability awareness.
- Wealthier consumers are more inclined to pay green premiums.
- Urban residents are exposed more frequently to sustainability messages.

Theoretical Framework

Theory of Planned Behavior (TPB)

This theory posits that consumer behaviors are shaped by:

- Attitudes
- Social norms
- Perceived control

While consumers may view sustainable packaging positively, financial constraints and product availability can hinder their purchasing behavior.

Attitude-Behavior Gap Theory

This theory examines the disconnect between consumer intentions and actual actions. Many consumers may feel emotionally inclined towards sustainability but prioritize convenience and price at the point of purchase.

Green Consumerism Theory

This theory focuses on the intention to buy products that minimize environmental harm. However, real-world adoption relies on factors like accessibility, price, and consumer trust.

Research Methodology

Research Design

The study will employ a descriptive and analytical approach.

Sources of Data

1.Primary Data:

- Structured questionnaires
- Consumer surveys
- Interviews

2.Secondary Data:

- Academic journals
- FMCG market analysis
- Government publications
- Sustainability reports

Sampling Technique

Both convenience and random sampling methods will be utilized to select participants.

1. Sample Size

A sample of between 150 and 300 consumers from urban and semi-urban areas will be selected.

2. Data Analysis Tools

Analysis will include:

- Percentage calculations
- Correlation and regression analyses
- Factor analysis

Consumer Awareness of Sustainable Packaging

Rising consumer awareness regarding environmental sustainability can be attributed to various factors like:

- Social media initiatives
- Environmental documentaries
- Government awareness campaigns
- Educational outreach
- Corporate sustainability marketing

Consumers are increasingly familiar with symbols like recyclable logos and eco-labels. However, awareness does not always lead to behavior change.

Factors Behind the Green Premium Paradox

1. Price Sensitivity: Price significantly affects FMCG purchases, driving consumers to prefer affordable options, even among those who care about sustainability.
2. Convenience: The practicality of finding sustainable options influences consumer behavior; if alternatives are less accessible, consumers gravitate towards traditional products.
3. Habitual Purchasing Behavior: Many FMCG purchases are made out of habit, leading to a lack of consideration for sustainability.
4. Lack of Trust: The prevalence of misleading sustainability claims erodes consumer confidence in green products.
5. Limited Environmental Knowledge: Some consumers may lack understanding of recyclable or biodegradable materials, reducing motivation for green purchasing.
6. Economic Conditions: Factors like inflation and reduced disposable income discourage consumers from paying additional premiums for green products.

Role of Green Marketing

Green marketing involves promoting products and practices that are environmentally responsible. Effective strategies include:

- Clear sustainability communication
- Eco-label certifications
- Environmental storytelling
- Awareness campaigns
- Sustainable brand positioning

Businesses are increasingly leveraging sustainability as a competitive edge to attract eco-conscious buyers.

Impact of Sustainable Packaging on the FMCG Industry

Sustainable packaging affects the FMCG sector in several ways:

1. Positive Impacts:

- Enhanced brand perception
- Increased consumer trust
- Competitive leverage
- Improved environmental reputation
- Long-term sustainability benefits

2. Challenges:

- Elevated production costs
- Complex supply chains
- Consumer reluctance to pay higher prices
- Technological constraints

Consumer Segmentation in Green Purchasing

Consumers can be segmented into categories:

1. True Green Consumers: Consistently support sustainable products and pay green premiums.
2. Occasional Green Consumers: Advocate for sustainability when it is affordable and convenient.
3. Price-Oriented Consumers: Prioritize cost above sustainability.
4. Skeptical Consumers: Distrust corporate sustainability claims.

Findings of the Study**Key findings include:**

- Consumers express positive attitudes towards sustainable packaging.
- Price emerges as the primary determinant of actual purchasing behavior.
- Consumers lean towards sustainable options only when price differentials are minimal.
- Trust issues substantially hinder green purchasing.
- Younger and more educated consumers typically demonstrate greater sustainability awareness.

- Environmental concern does not automatically translate to sustainable buying behavior.
- Convenience and availability significantly affect purchasing decisions.

Suggestions and Recommendations

1. For FMCG Companies:

- Lower price disparities between conventional and sustainable products.
- Enhance transparency regarding sustainability claims.
- Utilize certified eco-labels.
- Educate consumers about environmental benefits.
- Improve the availability of sustainable options.

2. For Government:

- Provide subsidies for sustainable packaging sectors.
- Promote environmental educational initiatives.
- Enforce stricter regulations against greenwashing.
- Support recycling infrastructure development.

3. For Consumers:

- Increase awareness of environmental impacts.
- Adopt responsible consumption behaviors.
- Support brands that prioritize environmental accountability.

Conclusion

The "Green Premium Paradox" exemplifies a significant challenge within sustainable consumer behavior in the FMCG sector. Although consumers are increasingly vocal about environmental concerns and support for sustainable packaging, their actual buying decisions are often governed by economic and practical factors.

This study highlights that factors such as price sensitivity, convenience, trust issues, habitual purchasing, and limited environmental knowledge are crucial in explaining the gap between consumer intentions and behavior. To foster the long-term adoption of sustainable practices, organizations must address issues of affordability, accessibility, and credibility rather than solely relying on emotional appeals or environmental messages.

The findings suggest that sustainability must be viewed not merely as a marketing tactic but as a fundamental economic and social responsibility. Bridging the divide between consumer attitudes and purchasing behavior is vital for achieving substantial environmental advancement within the FMCG industry.

References

1. Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*.
2. Kotler, P., & Keller, K. L. (2016). *Marketing Management*. Pearson Education.
3. Peattie, K. (2010). Green Consumption: Behavior and Norms. *Annual Review of Environment and Resources*.
4. Ottman, J. A. (2017). *The New Rules of Green Marketing*. Routledge.
5. Young, W., et al. (2010). Sustainable Consumption: Green Consumer Behaviour. *Sustainable Development Journal*.
6. Biswas, A., & Roy, M. (2015). Green Products: Consumer Behavior Analysis. *Journal of Cleaner Production*.
7. Kumar, P., & Ghodeswar, B. (2015). Factors Affecting Green Product Purchase Decisions. *Marketing Intelligence & Planning*.
8. Solomon, M. R. (2018). *Consumer Behavior: Buying, Having and Being*. Pearson.
9. Sharma, A. (2021). Sustainable Packaging and Consumer Perception in FMCG Sector. *International Journal of Marketing Studies*.
10. UNEP Reports on Sustainable Consumption and Packaging.



Cyber Violence Against Women in India: A Sociological Analysis

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Abstract-

The rapid expansion of digital technologies and internet connectivity has transformed social interactions, communication patterns, and access to information in contemporary India. While digital platforms have created new opportunities for education, employment, social participation, and empowerment, they have also generated new forms of violence and victimization. Cyber violence against women has emerged as a significant social issue affecting women's safety, dignity, privacy, and participation in digital spaces. Online harassment, cyberstalking, trolling, identity theft, non-consensual sharing of intimate images, hate speech, and various forms of digital abuse have become increasingly common in the digital age. The present study examines cyber violence against women in India from a sociological perspective. Based on secondary data obtained from academic literature, government reports, policy documents, and research studies, the paper explores the nature, causes, consequences, and social implications of cyber violence. The study argues that cyber violence is not merely a technological problem but a reflection of existing gender inequalities and patriarchal power structures operating within digital environments. The paper concludes that addressing cyber violence requires legal protection, digital literacy, gender-sensitive policies, and broader social transformation aimed at achieving gender equality.

Keywords: Cyber Violence, Women, Gender Inequality, Digital Spaces, Online Harassment, Cybercrime, Sociology, India.

Introduction

The digital revolution has transformed the social landscape of contemporary societies. Internet technologies, smartphones, social media platforms, and digital communication tools have become integral components of everyday life. In India, the rapid growth of internet users and digital infrastructure has expanded opportunities for communication, education, business, and social interaction. Women increasingly utilize digital platforms for educational advancement, professional development, entrepreneurship, social networking, and civic participation. Digital technologies have enabled women to access information, express opinions, build communities, and challenge traditional barriers. Consequently, digital spaces have become important arenas for empowerment and social participation. However, alongside these opportunities, digital environments have also become sites of violence, discrimination, and abuse. Women frequently encounter various forms of cyber violence that threaten their safety, privacy, dignity, and freedom of expression. Cyber violence includes behaviors such as online harassment, cyberstalking, trolling, sexual intimidation, cyberbullying, doxxing, revenge pornography, identity theft, and digital surveillance. The increasing prevalence of cyber violence has raised serious concerns regarding women's participation in digital spaces. Many women experience psychological distress, fear, anxiety, reputational damage, and social exclusion as a result of online abuse. In some cases, cyber violence discourages women from expressing opinions or participating actively in digital communities. From a sociological perspective, cyber violence cannot be understood solely as a technological issue. Rather, it reflects broader patterns of gender inequality, patriarchal domination, and power relations that exist within society. Digital platforms often reproduce social hierarchies and discriminatory attitudes present in offline environments. The present study seeks to analyze cyber violence against women in India by examining its forms, causes, consequences, and sociological significance. The study also explores the relationship between gender, technology, and power in contemporary digital society.

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Objectives of the Study

The major objectives of the study are:

1. To examine the nature and forms of cyber violence against women in India.
2. To analyze the sociological factors contributing to cyber violence.
3. To understand the impact of cyber violence on women's lives.
4. To explore the relationship between gender inequality and digital victimization.
5. To suggest measures for preventing cyber violence and promoting safer digital environments.

Research Questions

1. What are the major forms of cyber violence experienced by women in India?
2. What social and cultural factors contribute to cyber violence?
3. How does cyber violence affect women's participation in digital spaces?
4. What are the psychological and social consequences of online abuse?
5. What strategies can reduce cyber violence and promote digital safety?

Research Methodology

The present study is based on secondary data. Information has been collected from books, peer-reviewed journal articles, government reports, National Crime Records Bureau (NCRB) publications, policy documents, and reports prepared by national and international organizations. A descriptive and analytical approach has been employed to examine patterns of cyber violence, identify contributing factors, and evaluate existing responses to digital abuse against women.

Theoretical Framework**1. Feminist Theory**

Feminist scholars argue that gender inequality is embedded within social institutions and power structures. Cyber violence can be understood as an extension of patriarchal control into digital spaces. Online abuse often targets women because of their gender and seeks to silence, intimidate, or control their participation. From this perspective, cyber violence reflects broader social inequalities rather than isolated individual incidents.

2. Conflict Theory

Conflict theory emphasizes power relations and social domination. Digital technologies may become instruments through which dominant groups maintain power over marginalized groups. Cyber violence against women can therefore be viewed as a mechanism of social control that reinforces gender hierarchies and unequal power relations.

3. Symbolic Interactionism

Symbolic interactionism focuses on social interactions and the meanings individuals attach to experiences. Online interactions shape self-identity, social relationships, and perceptions of safety. Cyber violence affects how women perceive themselves and engage with digital environments, influencing both personal identity and social participation.

4. Manuel Castells' Network Society

Castells argues that contemporary society is increasingly organized through digital networks. Participation in networked spaces provides access to information, opportunities, and social influence. Cyber violence threatens women's ability to participate fully within digital networks, thereby limiting access to social and economic opportunities.

Review of Literature

Existing literature suggests that cyber violence has become one of the most significant challenges affecting women's participation in digital spaces. Researchers have documented various forms of online abuse, including cyberstalking, cyberbullying, sexual harassment, image-based abuse, and online threats. Studies indicate that women are disproportionately targeted because of gender stereotypes and patriarchal attitudes. Female journalists, activists, politicians, students, and public figures often experience higher levels of online harassment. Research further demonstrates that cyber violence has serious psychological consequences, including anxiety, depression, fear, stress, and reduced self-confidence. Victims may withdraw from online platforms or restrict their participation

due to safety concerns. Several studies have highlighted the relationship between online violence and offline discrimination. Digital abuse frequently reflects broader social inequalities related to gender, class, caste, religion, and sexuality. The literature also emphasizes the importance of legal frameworks, digital literacy, platform accountability, and public awareness in combating cyber violence. Scholars argue that technological solutions alone are insufficient without addressing underlying social attitudes and structural inequalities. Overall, existing research indicates that cyber violence represents a significant barrier to gender equality and digital inclusion in contemporary society.

Forms of Cyber Violence Against Women

Cyber violence encompasses a wide range of harmful behaviors that occur through digital technologies and online platforms. These forms of violence affect women's safety, dignity, privacy, and participation in digital spaces.

1. Online Harassment

Online harassment is one of the most common forms of cyber violence experienced by women. It includes abusive messages, offensive comments, threats, insults, and repeated unwanted communication. Women who actively participate in social media discussions, public debates, or professional networks often become targets of harassment. Such abuse may be directed at their appearance, opinions, profession, or personal life. Continuous harassment can create fear and emotional distress.

2. Cyberstalking

Cyberstalking refers to persistent monitoring, tracking, or unwanted communication through digital platforms. Perpetrators may repeatedly send messages, monitor online activities, or collect personal information without consent. Cyberstalking often creates feelings of insecurity and fear among victims. In some cases, online stalking may escalate into offline threats and physical safety concerns.

3. Cyberbullying

Cyberbullying involves the use of digital technologies to intimidate, humiliate, or harm individuals. Women and young girls frequently experience bullying through social media platforms, messaging applications, and online forums. Cyberbullying may include spreading rumors, posting humiliating content, sharing manipulated images, or encouraging social exclusion. Such actions can have serious psychological consequences.

4. Non-Consensual Sharing of Intimate Images

One of the most harmful forms of cyber violence is the distribution of intimate photographs or videos without consent. This practice is often referred to as image-based sexual abuse. Victims may experience severe emotional trauma, social stigma, reputational damage, and psychological distress. The fear of such abuse often discourages women from freely participating in digital environments.

5. Identity Theft and Impersonation

Identity theft occurs when an individual's personal information is used without authorization. Perpetrators may create fake profiles, misuse photographs, or impersonate women online. Such activities can damage reputations, create social embarrassment, and expose victims to additional forms of abuse. Identity theft also raises concerns regarding privacy and digital security.

6. Online Sexual Harassment

Online sexual harassment includes sexually explicit messages, unwanted sexual advances, obscene content, and threats of sexual violence. Women frequently encounter such behavior across social media platforms and digital communication channels. Sexual harassment contributes to feelings of discomfort, insecurity, and exclusion from online spaces.

7. Trolling and Hate Speech

Trolling involves deliberate attempts to provoke, intimidate, or humiliate individuals online. Women expressing opinions on political, social, or cultural issues often become targets of organized

trolling campaigns. Hate speech directed at women frequently contains sexist, misogynistic, or degrading language. Such attacks aim to silence women and discourage participation in public discourse

Causes of Cyber Violence Against Women

Cyber violence is influenced by multiple social, cultural, technological, and structural factors.

1. Patriarchal Social Structures

Patriarchy remains one of the most important factors contributing to cyber violence. Traditional gender norms often position women as subordinate to men and seek to control their behavior and public participation. Digital spaces have become new arenas where patriarchal attitudes are expressed and reinforced. Online abuse frequently reflects attempts to maintain traditional gender hierarchies.

2. Gender Stereotypes and Discrimination

Persistent gender stereotypes contribute to discriminatory behavior against women in digital environments. Women who challenge conventional expectations or express independent opinions may face hostility and abuse. These stereotypes normalize unequal treatment and create conditions that facilitate cyber violence.

3. Anonymity in Digital Spaces

The anonymity provided by digital technologies can encourage abusive behavior. Individuals may engage in harassment or intimidation because they believe they can avoid accountability. Anonymity reduces social restraints and increases opportunities for harmful online behavior.

4. Weak Awareness of Digital Ethics

Many users lack awareness regarding responsible online conduct and digital citizenship. Limited understanding of ethical behavior contributes to the normalization of online abuse and harassment. Educational initiatives promoting digital ethics are therefore essential for reducing cyber violence.

5. Technological Accessibility

The expansion of internet access and social media usage has increased opportunities for interaction but has also created new avenues for abuse. As more individuals participate in digital environments, incidents of cyber violence have become increasingly visible.

6. Inadequate Reporting and Legal Awareness

Many victims do not report incidents of cyber violence due to fear, social stigma, lack of awareness, or concerns regarding institutional responses. Underreporting contributes to the persistence of cyber violence and limits opportunities for legal intervention.

Impact of Cyber Violence on Women

Cyber violence affects multiple dimensions of women's lives and well-being.

1. Psychological Impact

The psychological consequences of cyber violence are often severe. Victims may experience anxiety, depression, fear, stress, loneliness, low self-esteem, and emotional trauma. Repeated exposure to online abuse can negatively affect mental health and overall quality of life.

2. Social Consequences

Cyber violence may lead to social isolation and withdrawal from digital participation. Women often reduce online engagement, restrict self-expression, or leave digital platforms due to safety concerns. This exclusion limits opportunities for communication, networking, and participation in public discourse.

3. Educational Consequences

Students who experience cyber violence may encounter difficulties concentrating on academic activities. Emotional distress can affect learning outcomes, academic performance, and

educational participation. Young women are particularly vulnerable to these effects because digital technologies are increasingly integrated into educational environments.

4. Economic Impact

Cyber violence can also affect employment and economic opportunities. Women engaged in online businesses, professional networking, or digital employment may experience disruptions caused by harassment and intimidation. Negative online experiences can limit participation in digital economies and reduce professional opportunities.

5. Impact on Democratic Participatio

Women who face online harassment often hesitate to express opinions regarding political and social issues. This reluctance reduces participation in democratic discussions and public debate. Cyber violence therefore affects not only individual victims but also broader processes of civic engagement and democratic inclusion.

Cyber Violence and Patriarchy in Digital Society

From a sociological perspective, cyber violence represents the extension of patriarchal power into digital environments. Technology itself is not inherently discriminatory; however, digital platforms often reflect existing social inequalities and power structures. The persistence of online abuse demonstrates that digital modernization does not automatically eliminate gender discrimination. Instead, traditional forms of domination may adapt to new technological contexts. Women who challenge gender norms, advocate for social change, or participate in public discussions often encounter resistance and hostility. Cyber violence therefore functions as a mechanism through which certain individuals attempt to regulate women's visibility and participation. The relationship between patriarchy and cyber violence highlights the need for broader social transformation alongside technological advancement.

Cyber Violence and Digital Safety

Digital safety has become an essential component of women's empowerment in contemporary society. Ensuring safe digital environments requires collaboration among governments, educational institutions, technology companies, civil society organizations, and users. Digital literacy programs can help women understand privacy settings, cybersecurity practices, reporting mechanisms, and legal protections. Educational institutions can also play an important role in promoting awareness regarding respectful online behavior and gender sensitivity. Technology companies have a responsibility to develop effective mechanisms for detecting and addressing abusive content. Strong institutional responses can contribute to safer and more inclusive digital spaces. Ultimately, digital safety should be recognized as a fundamental requirement for gender equality and meaningful participation in the digital age.

Findings and Discussion

The analysis of secondary data reveals that cyber violence against women has emerged as a significant social problem in contemporary India. The rapid expansion of digital technologies has created new opportunities for communication, education, employment, and participation; however, it has also generated new forms of victimization and gender-based violence. The findings of the study demonstrate that cyber violence is closely connected to broader structures of gender inequality and social power. One of the major findings of the study is that cyber violence has become increasingly widespread with the expansion of internet access and social media usage. Women across different age groups, occupations, and social backgrounds experience various forms of online abuse. The increasing frequency of cyber harassment, cyberstalking, trolling, and image-based abuse indicates that digital environments have become important sites of gender-based violence. The problem is no longer limited to a few isolated incidents but represents a broader social concern. The study finds that women experience cyber violence differently and often more intensely than men. Much of the abuse directed toward women is explicitly gendered in nature and seeks to intimidate, silence, or control their participation in digital spaces. Female journalists, students, activists, professionals, politicians, and public figures are particularly vulnerable to online harassment. Women who express opinions on

social and political issues frequently become targets of coordinated abuse. The findings suggest that cyber violence is not merely a technological issue but a reflection of existing social inequalities. Patriarchal attitudes, gender stereotypes, and discriminatory norms shape behavior within digital environments.

Online abuse often mirrors offline patterns of discrimination and domination. Consequently, cyber violence should be understood as part of broader systems of gender inequality operating within society. The study highlights significant psychological impacts associated with cyber violence. Victims often experience fear, anxiety, depression, emotional distress, low self-esteem, and feelings of insecurity. Repeated exposure to online abuse can have long-term consequences for mental health and well-being. These effects may influence academic performance, professional development, and social relationships. Many women alter their online behavior as a result of cyber violence. Some reduce their social media activity, avoid public discussions, limit self-expression, or withdraw entirely from digital platforms. This restriction undermines women's ability to benefit from educational, economic, political, and social opportunities available through digital technologies. The findings indicate that incidents of cyber violence are frequently underreported. Fear of stigma, victim-blaming, social embarrassment, and lack of awareness regarding legal remedies discourage many women from seeking help. Low reporting rates make it difficult to assess the full extent of cyber violence and may contribute to the continuation of abusive behavior. The study reveals that digital literacy significantly influences women's ability to protect themselves from cyber threats. Knowledge regarding privacy settings, cybersecurity practices, reporting mechanisms, and legal rights enhances digital safety. Women with greater digital literacy are often better equipped to respond to incidents of online abuse and protect personal information.

India has introduced various legal provisions to address cybercrime and online harassment. However, implementation challenges, limited awareness, lengthy procedures, and technological complexities often reduce effectiveness. The findings suggest that stronger institutional mechanisms and greater public awareness are necessary to ensure meaningful protection for victims.

The study finds that cyber violence has broader implications for democracy and social inclusion. When women are intimidated or silenced in digital spaces, their participation in public discourse and civic engagement is reduced. Cyber violence therefore affects not only individual rights but also the quality of democratic participation and freedom of expression.

Conclusion

The present study examined cyber violence against women in India from a sociological perspective. The analysis demonstrates that digital technologies have created both opportunities and risks for women in contemporary society. While digital platforms facilitate communication, education, employment, and empowerment, they have also become sites of harassment, intimidation, and abuse. The study reveals that cyber violence takes multiple forms, including online harassment, cyberstalking, cyberbullying, sexual harassment, identity theft, trolling, and image-based abuse. These experiences have significant psychological, social, educational, and economic consequences for women. A key conclusion of the study is that cyber violence cannot be understood solely as a technological problem. Rather, it reflects broader social inequalities, patriarchal structures, and gendered power relations. Digital spaces often reproduce discriminatory attitudes and practices that exist within offline society.

The study further demonstrates that cyber violence restricts women's participation in digital environments and undermines efforts to promote gender equality and digital inclusion. Fear of abuse may discourage women from expressing opinions, engaging in public discussions, and pursuing opportunities available through digital technologies. Addressing cyber violence therefore requires a comprehensive approach that combines legal protection, technological safeguards, digital literacy, institutional accountability, and broader social transformation. The creation of safe and inclusive digital spaces is essential for ensuring women's rights, empowerment, and meaningful participation in contemporary society.

Policy Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. Strengthen Legal Enforcement

Existing cybercrime laws should be implemented more effectively. Fast and accessible reporting mechanisms should be developed to ensure timely responses to incidents of cyber violence.

2. Promote Digital Literacy

Governments, educational institutions, and civil society organizations should provide digital literacy programs that educate women about cybersecurity, privacy protection, online safety, and legal rights.

3. Improve Awareness Regarding Cyber Violence

Public awareness campaigns should challenge victim-blaming attitudes and encourage respectful online behavior. Greater awareness can contribute to prevention and reporting.

4. Enhance Platform Accountability

Social media companies and digital platforms should strengthen mechanisms for identifying, reporting, and removing abusive content. Transparent moderation policies should be implemented.

5. Support Victims of Cyber Violence

Psychological counseling, legal assistance, and support services should be made available to victims. Institutional support can reduce the negative consequences of online abuse.

6. Integrate Gender Sensitization into Education

Educational institutions should include gender equality, digital ethics, and responsible online conduct within curricula and awareness programs.

7. Encourage Research and Data Collection

Further sociological research is needed to understand emerging forms of cyber violence and evaluate the effectiveness of policy interventions.

8. Promote Gender-Inclusive Digital Development

Digital policies should incorporate gender-sensitive approaches to ensure that women can participate safely and equally in digital environments.

References-

1. The Second Sex — de Beauvoir, S. (1949/2011). The Second Sex. Vintage Books.
2. Gender Trouble — Butler, J. (1990). Gender Trouble: Feminism and the Subversion of Identity. Routledge.
3. Bourdieu, P. (1986). The Forms of Capital. Greenwood Press.
4. Castells, M. (2010). The Rise of the Network Society (2nd ed.). Wiley-Blackwell.
5. Giddens, A. (1991). Modernity and Self-Identity. Stanford University Press.
6. National Crime Records Bureau. (Various Years). Crime in India Reports.
7. UN Women. (2023). Online Violence Against Women and Girls Report.
8. UNESCO. (2022). Gender and Digital Inclusion Report.
9. Jane, E. A. (2017). Misogyny Online: A Short (and Brutish) History. Sage Publications.
10. Powell, A., & Henry, N. (2018). Sexual Violence in a Digital Age. Palgrave Macmillan.
11. Van Dijk, J. (2020). The Digital Divide. Polity Press.
12. Wajcman, J. (2004). Technofeminism. Polity Press.
13. World Bank. (2022). Women and Digital Development Report.
14. OECD. (2022). Bridging the Digital Gender Divide.
15. Amnesty International. (2021). Toxic Twitter and Online Violence Against Women Report.
16. Pew Research Center. (2023). Online Harassment and Digital Participation Study.

The Effect of Family Relationships on Psychological Well-being of Secondary School Students

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Abstract

Secondary school students undergo a transitional phase during their teenage years, facing challenges that affect their family relationships and psychological well-being. Secondary school students are adolescents; this is a time of improving psychological well-being, but specific individual and family characteristics determine individuals' trajectories and role changes. They experience all sorts of pressures, difficulties and circumstances such as peer pressure, moving to a new school, making and breaking relationships with friends and foes, arguments with parents, struggle for autonomy, not feeling good enough, changing or jumbled home environment, exam pressure and failures and above all, youthful changes, school exclusion or absenteeism. Secondary school students' family relationships and psychological well-being, as reported through their survey and has found that they are increasingly more likely to worry, relatively a lot, about school and career problems.

Key Words: Secondary School Student, Family Relationship, Psychological Well-being.

Introduction

A family is the most important social institution that enables secondary school students (adolescents) to survive and develop into integrated functioning by enhancing their inborn adaptive capacities (**Kaur I., 2023**). Both mother and father play an important role in the growth and development of their child. The relationship between the parent-child relationship is strongly linked to adolescents' psychological well-being. The foundation of the growth of the personality lies in the womb of the family (**Casino et al., 2024**). Secondary school students use their parents as a model for their adjustment to life and fundamental patterns. The close parent-adolescent relationships, good parenting skills, shared family activities and positive parent role modelling all have well-recognised effects on adolescent psychological well-being and development (**Rita Kartika Sari et.al., 2024**).

Secondary school is the stage of life when students experience continuous change, i.e., psychologically and physically (**Soriano et.al., 2023**). Parents' involvement remains critical to the adolescent-parent relationship, as the level of involvement signals the importance of the parents. Several studies have shown that a positive relationship exists between family relationships and the psychological well-being of secondary school students (**Manacy, H. A., 2024**). It is equally important to care for one's psychological well-being as one's physical well-being - **Yco et al. (2023)**. As part of one's overall psychological health, mental and emotional health or well-being is a necessary condition to enable one to manage one's life successfully (**Molina et.al., 2024**). The secondary school student, who perceives themselves as being in a good family relationship, maintains better emotional intelligence, and they are able to regulate a tendency to report good psychological well-being.

Objectives:

- (i) To find out the effect of family relationships on the psychological well-being of secondary school students.
- (ii) To find out the effect of family relationships on the psychological well-being of secondary school students based on gender differences, if any.

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Hypothesis:

In addition to other hypotheses which may emerge in connection with the research work, the present investigation will proceed to the best. There are some hypotheses that will be formed for investigation.

- a) There will be a relationship between secondary school students' family relationships and psychological well-being.
- b) There will be a significant gender difference regarding the psychological well-being of secondary school students.
- c) There will be a significant gender difference regarding the family relationships of secondary school students.

Method of Investigation:

(i) Sample – The study will involve a randomly selected group of 200 Secondary school students. All samples, including male and female, will be drawn from Patna, Saran (Chapra) and Siwan Districts of Bihar. The groups will be similar in terms of their personal and socio-demographic background characteristics.

(ii) Measuring instruments: The following measuring instruments shall be used:

- a) Family Relationship scale - This scale was formulated by Dr. G. P. Sherry & Dr. J. C. Sinha (2016)
- b) Psychological Well-being scale – This scale was formulated by D. S. Sisodia & P. Chaudhary in 2012 and revised in 2019.
- c) Self-made personal data sheets will be used to gather detailed information about the subject related to their education, residence, family income, gender, etc.

Table – 1
Relationship between Family Relationships & Psychological Well-being of Secondary School Students

Variables	N	r	p
Family relationship	200	.239	< .01
Psychological Wellbeing			

Table 1 reveals that family relationships and psychological well-being are positively correlated, with a correlation of .239 that is significant at the <.01 level. It means that the family relationships of secondary school students enhance their psychological well-being. Findings are also supported by **Casino et al. (2024) & Kaur I. (2023)** that relationships play a vital role in family relationships and the psychological well-being of secondary school students. Therefore, our first hypothesis was supported by the obtained result.

Table – 2
Mean, SD and t of Boy and Girl secondary school students on their psychological well-being scale.

	N	Mean	SD	t	p
Boys	100	99.80	17.73	.137	> .05
Girls	100	97.91	18.12		

Table-2 reveals that the mean score of Boys is higher (99.80) than that of Girls (97.91) on the measure of psychological well-being scale, but the mean difference is not significant as the t-ratio ($t = 0.137$, $p > 0.05$). As part of one's overall psychological well-being, family relationships are associated. Several studies have shown that a positive relationship exists between family relationships and the psychological well-being of secondary school students (**Manacy, H. A., 2024**). But our second hypothesis was not supported by the obtained results, and there was no significant gender difference on the psychological well-being of secondary school students on their family relationships.

Table – 3
Mean, SD and t of Boy and Girl secondary school students on their family relationships scale

	N	Mean	SD	t	P
Boys	100	28.91	7.67	0.170	< .05
Girls	100	29.11	8.92		

Table-3 reveals that the mean score of Boys is lower (28.91) than that of Girls (29.11) on the measure of the family relationship scale, and the mean difference is significant as the t-ratio ($t = 0.170$, $p < 0.05$). The close parent-adolescent relationships, good parenting skills, shared family activities and positive parent role modelling all have well-recognised effects on adolescent psychological well-being and development (Rita Kartika Sari et.al., 2024). But in case of boys and girls there were significant difference between them . Therefore, our third hypothesis is supported by the obtained results.

Conclusion: The study demonstrates a significant association between family relationships and psychological well-being. It suggests that adolescents who maintain positive and supportive family relationships tend to experience higher levels of psychological well-being. Moreover, no significant gender differences were observed, indicating that both boys and girls show similar patterns in relation to family relationships and psychological well-being.

References:

- Casino-García, A. M., Llinares-Insa, L. I., Guillén-Martín, V. M., & Ibáñez-García, A. (2024). Giftedness and family well-being: The role of emotional intelligence, perceived social support and stress. *Psicothema*, 36(3), 277-286. <https://doi.org/10.7334/psicothema2023.401>
- Kaur I., (2023). A Study of the impact of Family Relationships on Mental Health and Motivation among School Going Students. *International Journal of Research Publication and Reviews*, Vol 4, no 5, pp 2398-2402 May 2023
- Manacy, H. A. (2024). Emotional Intelligence and Resilience of Higher Secondary school students. *International Journal of Indian Psychology*, 12(3), 1219-1227. DIP:18.01.118.20241203, DOI:10.25215/1203.118.
- Molina Moreno, et.al., (2024). The Role of Family Functionality and Its Relationship with Psychological Well-Being and Emotional Intelligence in High School students. *Educ. Sci.* 2024, 14, 566. <https://doi.org/10.3390/educsci14060566>
- Rita Kartika Sari et.al., (2024). Strengthening emotional intelligence intervention on behavior changes of mothers in stunting prevention, *International Journal of Public Health Science (IJPHS)* Vol. 13, No. 2, June 2024, pp. 536~541 ISSN: 2252-8806, DOI: 10.11591/ijphs.v13i2.23652
- Soriano-Sánchez, J.G. & Jiménez-Vázquez, D. (2023). Benefits of emotional intelligence in school adolescents: A Systematic Review. *Revista de Psicología y Educación*, 18(2), 83-95. <https://doi.org/10.23923/rpye2023.02.237>
- Yco et al. (2023). Emotional Intelligence and Mental Health of Senior High School students: A Correlational Study, *Psych Educ*, 2023, 11: 629-633, Document ID:2023 PEMJ994, doi:10.5281/zenodo.8210117, ISSN 2822-4353

Decolonizing Knowledge: Indian Knowledge Systems as Alternative Epistemologies

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Abstract

This paper explores the critical project of decolonizing knowledge by positioning Indian Knowledge Systems (IKS) as legitimate and firm alternative epistemologies. Dominant Western frameworks which were shaped by colonial history have marginalized and neglected non-Western ways of knowledge by treating them as superstition or inferior philosophy rather than strong systems of thought. This has created a sense of deep intellectual insecurity in postcolonial societies like India, where knowledge is measured using Eurocentric standards. This paper argues that IKS which consists of various traditions such as the six classical Darshanas (philosophical schools), Ayurveda, Yoga, Jyotisha (astronomy), Vyakarana (linguistics) and Arthashastra (statecraft) offers different ways of understanding reality. These systems are defined by relational knowledge, embodied practice, ethical-spiritual integration, cyclical temporality and the unity of material and spiritual domains. Unlike Western epistemology's tendency toward detachment and reductionism, IKS emphasizes that knowledge is inseparable from living, transforming the self and maintaining harmony with the environment. This paper argues that recovering IKS is not just an academic exercise but a necessary response to ongoing crises in ecology, mental health and epistemic justice. It talks about an inclusive approach to knowledge that respects different knowledge systems, encourages innovation and restores recognition and respect for marginalized traditions.

Keywords: Decolonizing knowledge, Indian Knowledge Systems, Alternative epistemologies, Epistemic violence, Postcolonial thought, Epistemic justice, Western epistemology.

Introduction

The definition of Knowledge emerged from a particular historical and geographical context of Western Europe during the Enlightenment and got spread across the globe through colonialism, globalization and the rise of modern science as the dominant framework. This framework treats knowledge as objective and values abstraction over experiences, individualism over society and facts over values.

For countries like India, this has created a major intellectual tension that continues to mold academic and cultural life today. For ages Indian scholars have developed sophisticated systems of thought that catered areas such as philosophy, medicine, mathematics, astronomy, ethics, politics, linguistics and spirituality. These were not just beliefs, traditions, superstitions or myths. They were systematic, tested and debated forms of knowledge with their own methods. The Nyaya school developed sophisticated logic and epistemology. Ayurveda has created a comprehensive medical system. Panini's grammatical analysis of Sanskrit remains one of the most advanced and revered linguistic theories world wide. Indian astronomers calculated planetary motions with accuracy which later influenced European science.

When colonial education systems arrived in the 18th and 19th centuries these prevailing traditions were outrightly labelled as superstition, mysticism or inferior philosophy. The British established universities modelled on Oxford and Cambridge, introduced English as the language of higher learning and created examination systems that rewarded the memorization of Western texts over understanding Indian thought. Sanskrit, Arabic and Persian texts were sidelined. The valuable traditions of Indian philosophy were dismissed as mysticism. Ayurveda was labelled as unscientific.

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Indian astronomy was considered primitive astrology. This was not simply due to ignorance or neglect. It was an active process of delegitimization of IKS.

The philosopher and sociologist Boaventura de Sousa Santos calls this process "epistemic violence" which means the destruction or marginalization of non- Western ways of knowing. Indian scholar Dipesh Chakrabarty calls this "the anomaly of Indian modernity" where Indians became modern by imitating the West but were never allowed to be fully equal.

This has created the deep intellectual insecurity that exists in Indian universities today. History is taught through Eurocentric frameworks that treat European civilization as the benchmark of progress. Science is seen as exclusively Western.

Today, as the world faces unforeseen crises of ecological destruction, mental health collapse, social inequality and spiritual alienation. Many scholars are rethinking whether the Western framework of knowledge is truly sufficient or whether they need to dive into the ocean of indigenous knowledge systems of various cultures.

IKS highlights that knowledge is relational, embodied, ethical, spiritual and multidimensional. These are legitimate and rigorous epistemologies that deserve to be studied and taught alongside Western frameworks.

The renewed focus on Indian Knowledge Systems in India's National Education Policy (2020) marks a significant shift in how education is being re-evaluated in the postcolonial context. For years, formal education continued to operate within frameworks inherited from colonial rule where Western models of knowledge were treated as universal and indigenous traditions were either marginalized or reduced to cultural symbols.

However, decolonizing knowledge does not mean rejecting Western science or it does not mean believing that ancient Indians knew everything or that Western knowledge is completely wrong. True decolonization means recognizing different forms of knowledge, restoring respect for marginalized knowledge systems and creating spaces where diverse ways of knowing can learn from and interact with one another

Research Objectives

1. To examine the historical impact of colonialism on Indian Knowledge Systems.
2. To identify and articulate the main epistemological features of the Indian Knowledge System.
3. To compare Western and Indian epistemological frameworks.
4. To identify the challenges in the decolonization of knowledge through IKS.
5. To propose pathways toward pluralistic and decolonial epistemology.

Research Methodology

1. Historical Method (Documentary/Textual Analysis):

This method examines colonial records, educational policies and administrative documents along with pre-colonial Indian texts (Sanskrit, Arabic, Persian) and post-colonial academic institutions to study how knowledge systems have evolved over time.

Data Sources:

Primary sources: Colonial records, early university curricula and British administrative reports.

Secondary sources: Scholarly works on colonial education, Indian intellectual history and decolonial theory.

2. Philosophical Method (Conceptual Analysis):

This method studies classical Indian philosophical texts and key concepts such as pramana, dharma, moksha and prakṛiti-puruṣha. It analyses their ideas and arguments and compares them with Western philosophical perspectives.

Data Sources:

- Original texts: Nyaya Sutras, Yoga Sutras, Vedanta Sutras, Arthashastra, Ayurvedic texts (Charaka, Sushruta)
- Commentaries by classical scholars (Adi Shankara, Ramanuja, Patanjali)
- Modern scholarly interpretations and translations

3.Comparative Method:

The comparative method involves comparing Western and Indian knowledge systems to identify their similarities, differences and areas of where they overlap. It examines key concepts and uses frameworks or tables to emphasize the different perspectives.

4.Critical Theory Approach (Decolonial Framework):

The decolonial approach applies the ideas of decolonial thinkers such as Boaventura de Sousa Santos, Dipesh Chakrabarty, Gayatri Spivak and Walter Dignolo to study how power influences what is accepted as knowledge. It identifies types of epistemic injustice and suggests ways to promote epistemic justice and inclusion of diverse knowledge systems.

5. Literature Review Method (Secondary Source Analysis):

Academic databases such as JSTOR, Google Scholar and university repositories were used. Also reviewing books, journal articles and essays on Indian Knowledge Systems , Decolonization of Knowledge , Postcolonial Epistemology and Indigenous Knowledge vs. Western Science.

Data Sources:

- Academic journals: Journal of Indian Philosophy, Economic and Political Weekly, Social Scientist and Declassical.
- Books: Works by Romila Thapar, Dipesh Chakrabarty, Vandana Shiva and Ashis Nandy.
- Conference papers and thesis work on IKS.

6. Interdisciplinary Methods:

This method uses insights from different disciplines such as the history of science (astronomy, mathematics), medicine (Ayurveda), environmental studies, linguistics (Panini's Grammar) and political theory (Arthashastra). It examines the contributions of Indian traditions and links them with modern knowledge systems to gain a broader understanding of knowledge and society.

The Colonial Project and Epistemic Violence

To understand the importance of decolonization we must first understand what colonization did to knowledge itself. Colonialism was not only a system of political control and economic benefit but also a way of organizing what could be known.

When the British came to India, they did not just rule over the land. Instead, they established universities modelled on Oxford and Cambridge, introduced English as the language of higher learning and created examination systems that favored the memorization of Western texts over engagement with Indian thought. Sanskrit, Arabic and Persian texts were sidelined. The rich traditions of Indian philosophy, logic, medicine and astronomy were dismissed as "oriental mysticism."

The philosopher and sociologist Boaventura de Sousa Santos calls this "epistemic violence" which means the destruction or marginalization of non-Western ways of knowing. It is not just that Indian knowledge was ignored rather it was actively delegitimized. The results showed that Indian students learned to think about their own culture and heritage from a foreign perspective. They began to measure their philosophy by whether it matched Plato or Kant, judged their medicine by whether it fit the standards of modern biochemistry and evaluated their astronomy by comparing it to Newton or Kepler.

This created what the Indian scholar Dipesh Chakrabarty calls "the anomaly of Indian modernity." Indians became modern by following the West but they were never allowed to be fully equal. Their own intellectual traditions were seen as remains of a pre-modern past and not as living systems of thought.

The consequences of this are still visible today. In Indian universities, Philosophy Departments still focus almost entirely on Western thinkers. History is taught using Eurocentric frameworks. Science is perceived as being exclusively Western. Even when Indian scholars try to recover their own heritage they often do so by trying to prove that ancient Indians knew calculus

before Newton or that Ayurveda is scientifically valid according to modern biomedical standards. This is a form of intellectual insecurity.

Decolonization is not about rejecting modernity, instead it is about rejecting the idea that Western modernity is the only form of modernity.

What Are the Indian Knowledge Systems?

Before we can decolonize, we must understand what we are trying to recover from. Indian Knowledge Systems (IKS) is not a single doctrine or religion. It is a vast, diverse and ancient body of thought that developed over thousands of years on the Indian subcontinent. It includes multiple schools of philosophy, scientific traditions, medical systems, linguistic theories, political frameworks and artistic practices.

The most important feature of IKS is that it is not divided into rigid categories like science, philosophy and religion. In the Western tradition these fields are separate. Science deals with facts, philosophy with ideas and religion with faith. However, in Indian thought these domains are deeply interconnected.

One of the central concepts in IKS is Darshana which means viewpoint or perspective. There are six major darshanas in classical Indian philosophy: Nyaya, Vaisheshika, Sankhya, Yoga, Mimamsa and Vedanta. Although they have different views about reality; they all value logical thinking, discussion and personal growth. For example, a Yoga school is not just about physical postures. It is a complete epistemological and psychological system that explains how the mind works, how suffering arises and how liberation can be achieved through disciplined practice.

These systems were not isolated from each other. They were debated, refined and transmitted through oral and written traditions for centuries. Scholars like Adi Shankara, Ramanuja, Madhava, Gaudapada and Vasugupta engaged in deep philosophical dialogues that shaped Indian intellectual history.

However, IKS goes beyond philosophy. It includes:

- **Ayurveda**, a medical system that views health as a balance of body, mind, and environment.
- **Jyotisha** (astronomy and astrology), which developed advanced mathematical models for predicting planetary motion.
- **Vastuvidya** (architecture), which integrates geometry, cosmology and environmental harmony.
- **Natya** (dance and theatre), which combines aesthetics, ethics and spirituality.
- **Vyakarana** (linguistics), particularly the work of Panini, whose analysis of Sanskrit grammar is still considered one of the most sophisticated in the world.
- **Arthashastra**, a political and economic text by Kautilya that discusses governance, diplomacy and statecraft with remarkable realism.

Each of these traditions has its own methods, standards of evidence and criteria for validity. These are not unscientific. They are scientific in their own terms but the problem is that we have been using Western standards to judge them.

Alternative Epistemologies (How IKS Knows Differently)

The center of the decolonial argument is that IKS offers alternative epistemologies that are different ways of knowing that challenge the assumptions of Western thought. To understand this, we need to look at what makes IKS epistemologically different from western science.

1. Relational Knowledge:

Western epistemology often treats knowledge as individual and detached. Scientists observe the world from the outside. Philosophers think about ideas in isolation. The knower is separate from what is known.

In the IKS, knowledge is relational. It emerges from the relationship between the knower, the known and the context. The Pramana theory explicitly acknowledges this fact. Perception is not just sensory data rather it is perception within a specific situation. A conclusion is made by

connecting clues or signs with what they indicate. The knowledge gained from listening to others depends on trusting the source and understanding the context in which it is shared.

This relational view is particularly clear in Ayurveda. Health is not merely the absence of disease. It is the balance between the individual, their diet, environment, emotions and community. Treatment is not just about giving medicine but it is about restoring harmony in the entire system of relationships.

2. Embodied Knowledge:

Western science often treats the body as an object of study. The mind is considered the main source of knowledge while the body is often considered as unimportant. In IKS knowledge is embodied. The body is not just a machine it is also a medium of knowing. For example, in Yoga the practice of asana (posture), pranayam (breath control) and dhyana (meditation) are not separate from philosophical inquiry. These are ways of knowing through the body. The mind cannot be understood without considering the body. Consciousness is not just a mental phenomenon, rather, it is experienced throughout the entire organism.

This is also true in Natya Shastra (a classical text on dance and theatre). The performer does not just represent emotions they also embody them. The audience does not just watch, they also experience the emotions through the performer's body, voice and movement. Knowledge is transmitted through embodiment not just through words.

3. Ethical and Spiritual Knowledge:

In the Western model knowledge is often seen as neutral. Science is about facts and not values. Philosophy is about truth and not morality. Religion is about faith and not reason.

The IKS rejects this separation. Knowledge is inherently ethical and spiritual in nature. The goal of knowing is not just to understand the world, but to live well and achieve liberation (moksha). For example, in Vedanta the inquiry into the nature of reality is inseparable from the inquiry into the nature of the self. To know the truth is to transform one's self.

This is also evident in the concept of dharma, which is often translated as duty or religion. However, it is more accurately a principle of ethical order. Dharma tells us how to act in accordance with the nature of reality. Knowledge without dharma is dangerous. This can lead to power without responsibility, technology without ethics and progress without meaning.

4. NonLinear and Multidimensional Time:

Western science typically treats time as being linear and uniform. It moves from the past to present and then to the future. It is measured in seconds, minutes and years.

In IKS, time is both cyclical and multidimensional. The concept of yajna (cosmic ritual) and the cycles of yugas (ages) suggest that time moves in vast cycles of creation, preservation and dissolution. This is not just a myth. This reflects a different understanding of change, evolution and history.

In astronomy, Indian scholars developed complex models of planetary motion that accounted for cycles lasting thousands of years. They did not perceive time as a straight line. They viewed time as a series of repeating and interconnected cycles.

This has implications for how we understand history, ecology and even the future. If time is cyclical, then the future is not just a continuation of the present. It is a return, transformation and new beginning. This challenges the Western idea of progress as a linear accumulation.

5. Integration of the Material and the Spiritual:

Western modernity separates material from the spiritual. Science deals with the material world and its phenomena. Religion deals with the spiritual. They do not overlap.

IKS integrates them. In Vedanta, the material world (prakṛti) is not separate from the spiritual (Purusa). These are two aspects of the same reality. In Ayurveda, the body is not just physical, it is also energetic and spiritual. The doshas (humors) are not just biological, they are also psychological and cosmic.

This integration challenges Western reductionism which reduces everything to matter. This suggests that reality is multidimensional and that knowledge must account for all dimensions.

Why Decolonization Matters Today

The recovery of IKS is not just an academic exercise. This has urgent practical and ethical significance worldwide.

1. Ecological Crisis:

The Western knowledge model has contributed to the ecological crisis. It treats nature as a resource to exploit. It separates humans from their environment. It values efficiency over sustainability.

IKS offers a different vision. In Vastuvidya, architecture is designed to be in harmony with the environment. In Ayurveda, health is inseparable from the ecological balance. According to the concept of dharma, humans have a duty to protect the natural world. The concepts of antangira (inner cleanliness) and bahyagira (outer cleanliness) shows that personal and environmental health are connected.

Decolonizing knowledge means recognizing that Indigenous and traditional knowledge systems provide valuable insights into sustainability. It means listening to farmers, healers and elders who have lived in balance with nature for centuries.

2. Mental Health and Alienation:

Modern life is marked by anxiety, depression and alienation. The Western model of knowledge contributes to this by separating the mind from the body, the individual from the community and the self from the world.

IKS includes practices that help to heal the individual. Yoga, meditation and mindfulness are not just trends. They are epistemological practices that help us understand ourselves more deeply. They restore the connection between the body, mind and spirit. They remind us that knowledge is not just about thinking but about living.

3. Epistemic Justice:

For centuries, non-Western people have been denied the right to define their knowledge. They have been forced to think according to a foreign framework. This is a form of social injustice.

Decolonization is an epistemic justice. It is about restoring the dignity of marginalized knowledge systems. It is about creating spaces where Indian, African, Indigenous and other non-Western epistemologies can be taught, studied and valued alongside Western thought.

4. Innovation and Diversity:

When we limit knowledge to one framework, we indirectly tend to limit innovation. Diversity of thought leads to creativity. IKS offers new perspectives that can enrich science, technology and philosophy.

For example, Indian linguistics inspired modern computational linguistics. Indian mathematics has contributed to the development of algorithms and cryptography. Indian medicine offers holistic approaches to health that complement Western treatments.

Decolonization does not mean rejecting Western science. This means expanding the boundaries of knowledge and embracing indigenous knowledge systems so that multiple traditions can contribute.

Relevance

This topic is significant because it challenges the dominance of Western knowledge and recognizes Indian Knowledge Systems as valid and rigorous ways of knowing. This promotes epistemic justice.

Academically, it enriches philosophy and research by introducing concepts such as pramana, dharma and moksha. Educationally, it supports the goals of the NEP 2020, curriculum reform and critical thinking. Socially and culturally, it helps restore cultural identity, preserve intellectual heritage and strengthen cultural continuity.

Politically, it challenges colonial and neocolonial power structures and supports postcolonial nation-building. Environmentally, IKS offers a holistic approach to sustainability and ecological balance. In the field of mental health, practices such as yoga and meditation provide alternative ways to promote well-being and ethical living.

Globally, this topic contributes to debates on Indigenous knowledge, knowledge inequality, and solutions to contemporary crises. It also encourages interdisciplinary research and innovation by integrating insights from philosophy, science, medicine and technology. Overall, the study is timely and relevant as it responds to the growing global movements for decolonization, epistemic justice and sustainable development.

Limitations

This research is mainly theoretical and relies on textual analysis with limited empirical evidence or input from contemporary practitioners. This may oversimplify the diversity of Indian Knowledge Systems and the complexity of Western thought. The study also does not fully address the practical challenges of integrating IKS into education and research institutions. There is a risk of glorifying IKS while overlooking their limitations and internal differences. Future research should include empirical studies, broader comparative analyses and practical frameworks for implementing epistemic pluralism.

Conclusion

Decolonizing knowledge is not merely about recovering the past. It is about imagining the future of the world. It is about recognizing that the Indian Knowledge System is not just an ancient remnant. They are living epistemologies that offer wisdom for the present. IKS reminds us that knowledge is relational, embodied, ethical and multidimensional. This challenges the Western assumption that knowledge is objective, detached and purely material. It offers alternative ways of understanding the world and the self.

This does not reject of Western science but rather expands it. It is a call for epistemic justice and a path toward a more inclusive, diverse and humane world.

As we move forward, let us remember that knowledge is not just about power; it is also about freedom, dignity and the right to think in our own language.

Indian Knowledge Systems are not just alternatives; they are the path to a decolonized future.

References

1. Santos, B. de S. (2018). *The End of the Epistemic Order: For Another Common Sense*.
2. Smith, L. T. (2012). *Decolonizing Methodologies: Research and Indigenous Peoples* (2nd ed.).
3. Chakrabarty, D. (2004). *The Postcolonial Century: Writings on Indian History and Society*.
4. Gordon, L. R. (2015). *What Fanon Said: A Philosophical Introduction to His Life and Thought*.
5. Ndlovu-Gatsheni, S. J. (2018). "Decolonizing Methodology: Unmasking Its Role and Purpose in Research."
6. Thapar, R. (2004). *The Penguin History of Early India: From the Origins to AD 1300*.
7. Nandy, A. (1983). *The Sexuality of the Empire: The Making and Unmaking of British Colonialism*.
8. Sharma, C. (2020). *Indian Knowledge Systems: A Comprehensive Introduction*.
9. Govindarajan, V., & Balasubramaniam, R. (2021). "Indian Knowledge Systems and Their Relevance in Contemporary Education."
10. Kale, S. (2022). "Reviving Indian Knowledge Systems: A Literature Review."
11. Pande, A., Chaturvedi, R., & Daya, S. (Eds.). (2023). *Epistemic Justice and the PostColonial University*.
12. Jaggar, A., & Tobin, T. W. (2024). "Moral Justification and Structural Epistemic Injustice."
13. Spivak, G. C. (1988). In *Other Worlds: Essays in Cultural Politics*.
14. Mignolo, W. (2010). *Delinking: The Rhetoric of Decolonization, the Dilemma of Modernity, and the Option of Decoloniality*.
15. Quijano, A. (2000). "Coloniality of Power and Epistemic Deference."

