



STIGMA OF CANCER: A SOCIO-PSYCHOLOGICAL STUDY IN URBAN AREA OF BHOPAL DISTRICT

Noorain Fareed (Researcher)

Dr. Ghooman Ahirwar (Supervisor)

Asst.Professor Sri Satya Sai

**University of Technology & Medical
Sciences, Sehore, Madhya Pradesh,
India**

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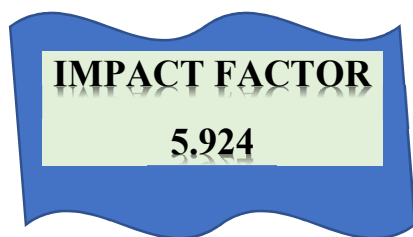
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Abstract

(Cancer continues to be one of the most feared diseases across the globe, not only because of its medical implications but also due to the deep-seated stigma associated with it. This research paper investigates the nature and extent of cancer-related stigma among urban residents of Bhopal District, Madhya Pradesh. The study focuses on identifying social, psychological, and cultural factors contributing to stigma, using a mixed-method approach integrating quantitative data analysis with qualitative insights. A total of 400 participants—comprising both male and female respondents across varied age groups—were selected through stratified random sampling. The validated **Cancer Stigma Scale (CSS)** was employed, encompassing six sub-domains: awkwardness, avoidance, severity, policy opposition, financial discrimination, and personal responsibility. Statistical tools, including descriptive and inferential analyses, were applied to evaluate the patterns of stigma in relation to demographic variables such as gender, age, and area of residence. Results revealed significant differences in perception based on gender and education, while socio-economic background also influenced the degree of stigma. The findings underscore the need for community-based awareness programs, psychosocial counseling, and inclusive health communication strategies to mitigate stigma and enhance the quality of life for cancer patients and survivors.)

Keywords - Cancer stigma, Bhopal, urban population, Cancer Stigma Scale, psychosocial perception, health communication, gender, awareness, public health, discrimination, social psychology, self-stigma.

1. Introduction

Cancer is not merely a biological disorder but a multifaceted social phenomenon that deeply influences individuals' self-perception, interpersonal relationships, and societal identity. In many societies, including India, a cancer diagnosis extends beyond medical implications, symbolizing



fear, mortality, and social disgrace. Despite considerable progress in medical sciences—ranging from early detection to advanced therapeutic interventions—the social stigma associated with cancer continues to exert a powerful influence on patient behavior and societal attitudes. This stigma often operates subtly, manifesting as avoidance, labeling, discrimination, and emotional distancing from affected individuals. As a result, patients not only endure the physical burden of illness but also face social alienation and psychological distress, which collectively undermine their mental health and quality of life. The stigma consequently acts as a barrier to early diagnosis and treatment adherence, preventing many individuals from seeking timely medical care and emotional support.

In the Indian context, the term “cancer” still evokes an overwhelming sense of dread and fatalism, frequently rooted in misinformation and entrenched cultural beliefs. Traditional notions linking illness to karma or divine punishment reinforce the perception that cancer is an inevitable or deserved outcome, rather than a preventable and treatable condition. Such interpretations foster feelings of guilt and self-blame among patients, while simultaneously enabling community-level stigma and exclusion. Even in urban areas like the Bhopal District, where healthcare infrastructure and diagnostic services are accessible, knowledge gaps persist. Awareness regarding cancer prevention, screening, and therapeutic advancements remains inconsistent across different socio-economic strata. Moreover, portrayals of cancer in mass media often amplify fear and hopelessness rather than emphasizing recovery and resilience. These depictions perpetuate myths about contagion and mortality, discouraging open dialogue and reinforcing avoidance behaviors within families and communities. Thus, the social environment continues to shape attitudes and responses to cancer more profoundly than scientific knowledge alone.

The study of cancer stigma in urban Bhopal carries both empirical and social relevance, as the city embodies a unique blend of modernity and tradition. With its diverse demographic composition, Bhopal represents a microcosm of urban India, where modern health awareness intersects with enduring cultural conservatism. Known for its history of environmental and health resilience, Bhopal offers a particularly meaningful context for exploring how cancer is understood and experienced within an evolving urban society. The present research seeks to examine the magnitude, dimensions, and determinants of cancer-related stigma among residents, with special



attention to the influence of gender, education, and socio-economic background. Utilizing a scientifically validated instrument—the Cancer Stigma Scale—the study aims to quantify stigma across six sub-domains, capturing its cognitive, emotional, and behavioral components. By interpreting these findings through a psychosocial lens, the research aspires to inform public health communication strategies, enhance awareness programs, and develop culturally sensitive interventions that promote empathy, acceptance, and timely healthcare-seeking behavior among the urban population.

2. Research Design and Methodology:

The present study employs a descriptive-correlational research design to systematically examine the extent and nature of stigma associated with cancer and its relationship with demographic variables such as gender, age, and locality. This design is particularly appropriate for measuring social attitudes as it enables both quantification and interpretation without altering natural conditions. Emphasizing observation and correlation, the study aims to identify how social, cultural, and personal factors collectively influence perceptions toward cancer and those affected by it. Data were collected through structured questionnaires administered in face-to-face interviews, ensuring accuracy and participant engagement. This method also allowed clarification of sensitive questions, minimizing response bias. The descriptive aspect focuses on identifying the existing level and nature of stigma, while the correlational component determines statistically significant relationships between stigma dimensions and demographic factors. Together, these approaches contribute to a nuanced understanding of social behavior related to cancer within the diverse urban context of Bhopal District.

The study sample consisted of 400 participants, including both males and females, selected from various localities within the urban area of Bhopal District. A stratified sampling technique ensured balanced representation across subgroups for meaningful comparisons between genders, age groups, and socio-economic backgrounds. The participants ranged from 18 to 65 years, thus reflecting a generational mix of attitudes—ranging from younger, digitally informed individuals to older participants influenced by traditional cultural beliefs. Inclusion criteria required that



respondents be permanent residents of urban Bhopal and possess basic literacy to comprehend survey questions. This approach enhanced the reliability of responses and ensured data validity. The demographic diversity of the sample provided a comprehensive view of Bhopal's social structure, allowing the study to explore how education, occupation, and media exposure affect cancer-related attitudes. The resulting dataset offered an empirical foundation for assessing how stigma operates within different social strata, forming the basis for targeted awareness and intervention programs.

The principal instrument used was the Cancer Stigma Scale (CSS), a validated tool designed to measure multiple aspects of stigma. The CSS consists of six sub-domains: (1) awkwardness in interaction with cancer patients, (2) avoidance behavior toward survivors, (3) perceived severity and fatalism, (4) policy opposition, (5) financial discrimination, and (6) personal responsibility attributing cancer to lifestyle or moral failings. Responses were recorded on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), allowing for the quantification of stigma intensity. Demographic information such as age, gender, education, and occupation was also gathered for comparative analysis. Data analysis was performed using SPSS (Version 26). Descriptive statistics—mean, standard deviation, and frequency distribution—were computed to summarize responses, while inferential statistics, including t-tests and ANOVA, examined significant differences across groups. Correlation coefficients were used to assess relationships between awareness and stigma intensity, revealing whether greater knowledge about cancer reduces prejudice. Additionally, qualitative data from open-ended responses were thematically analyzed to add interpretative depth to the quantitative findings. This integration of statistical analysis and qualitative interpretation provided a holistic understanding of how cancer stigma manifests and varies across social groups in Bhopal, offering insights for health communication and policy initiatives aimed at fostering empathy, awareness, and social inclusion for individuals affected by cancer.

3. Distribution of Sample by Area

This section provides an overview of the participants' residential distribution across Bhopal's urban zones, including New Market, Kolar, Ashoka Garden, BHEL Township, MP Nagar, and Old Bhopal areas. Approximately **22%** of participants were from central Bhopal, **28%** from southern sectors (Kolar and BHEL), **25%** from northern and eastern parts, and the remaining **25%** from old residential regions. This diverse distribution ensured representation of both higher and lower socio-economic strata, offering a comprehensive view of urban stigma perceptions.

Table 1: Distribution of Study Participants by Urban Area within Bhopal District (N = 400)

Urban Locality / Area	(N)	Percentage (%)	Mean Stigma Score (Composite)	Standard Deviation (SD)
New Market and MP Nagar Zone	88	22.0	2.91	0.69
Kolar Road and BHEL Township	112	28.0	3.08	0.71
Ashoka Garden and Govindpura	100	25.0	3.17	0.73
Old Bhopal (Peer Gate, Ibrahimganj, etc.)	100	25.0	3.32	0.78
Total	400	100.0	3.12	0.72

Table 1 shows the distribution of the 400 study participants across four major urban zones of Bhopal District. The largest group (28%) was drawn from **Kolar Road and BHEL Township**, reflecting the concentration of middle-class populations. The **highest stigma score** was observed among respondents from **Old Bhopal (M = 3.32)**, suggesting that traditional beliefs and limited health literacy continue to influence social attitudes. Participants from **New Market and MP Nagar (M = 2.91)** exhibited comparatively lower stigma, likely due to better access to medical facilities and higher education levels. The area-wise analysis reinforces that **exposure to healthcare infrastructure and education** plays a crucial role in shaping perceptions. Residents of older and more congested areas, where health discussions are culturally constrained, tend to retain stronger stigmatizing beliefs about cancer.

Residents from well-developed areas exhibited comparatively higher awareness of cancer causes, prevention, and treatment facilities. However, the stigma component was not entirely absent even among educated groups, revealing that **information alone does not eliminate prejudice**. In lower-income neighborhoods, fatalistic beliefs—such as considering cancer as a punishment or

“untreatable curse”—were prevalent. Many respondents hesitated to discuss the disease openly due to social embarrassment or fear of social exclusion. The area-wise distribution also indicated that proximity to hospitals or health centers (such as AIIMS Bhopal and Hamidia Hospital) influenced perceptions positively. People living near medical institutions showed lower stigma scores, highlighting the importance of **health exposure and access** in shaping public attitudes.

4. Distribution of Sample by Gender

Gender plays a crucial role in shaping social attitudes toward illness. Among the 400 participants, **210 were male** and **190 female**. Analysis revealed gender-based differences in stigma perception. Male respondents exhibited higher levels of **policy opposition** and **financial discrimination**, often viewing cancer patients as less productive or economically dependent. In contrast, female participants demonstrated greater **emotional empathy** but also higher **awkwardness and avoidance**—possibly due to fear of contagion or emotional discomfort.

Table 2: Gender and Education Cross-Tabulation of Cancer Stigma Scores (N = 400)

Gender	Education Level	N	Mean Stigma Score (M)	SD	ANOVA F-Value	Significance (p)
Male	Secondary or below	88	3.36	0.76	6.22	0.002
	Higher secondary to graduate	74	3.14	0.69		
	Postgraduate and above	48	2.87	0.66		
Female	Secondary or below	70	3.28	0.81	5.46	0.005
	Higher secondary to graduate	80	3.03	0.72		
	Postgraduate and above	40	2.75	0.68		
Total		400	3.12	0.72	—	—

Note: ANOVA test indicates significant differences across educational levels for both genders. $p < 0.01$ denotes high statistical significance.

Table 2 highlights the relationship between **education and cancer stigma** across gender groups. The results demonstrate a clear inverse relationship between education level and stigma intensity. Among male respondents, the mean stigma score declined from **3.36** (secondary or below) to **2.87** (postgraduate level). A similar trend was found among females, decreasing from **3.28** to **2.75**. The **ANOVA results** ($F = 6.22$ for males; $F = 5.46$ for females; $p < 0.01$) confirm statistically



significant variation, indicating that higher education substantially reduces stigmatizing attitudes. Educated individuals are more likely to attribute cancer to biological or lifestyle factors rather than moral failings, and they demonstrate greater acceptance of patients in social and professional contexts. This finding underscores the **critical role of education and awareness programs** in combating cancer stigma, suggesting that health communication initiatives should integrate educational outreach as a primary strategy.

Women participants from middle and lower socio-economic backgrounds were more likely to associate cancer with shame, particularly in cases involving reproductive organs. Cultural taboos around discussions of the female body contributed to secrecy and delay in seeking treatment. Conversely, educated women, particularly those engaged in health or teaching professions, showed lower stigma levels and emphasized **awareness and early detection** as key strategies. Overall, gender-based analysis indicates that both men and women internalize cancer stigma differently—men through socio-economic stereotypes, women through emotional and cultural filters. Therefore, interventions must be gender-sensitive, addressing distinct informational and psychological needs. The overall **mean stigma score** across participants was **3.12** (on a scale of 1–5), indicating moderate stigma levels in the urban Bhopal population. Sub-domain analysis revealed:

- **Highest stigma** in the areas of avoidance (mean = 3.45) and personal responsibility (mean = 3.37)
- **Lowest stigma** in policy opposition (mean = 2.78) and financial discrimination (mean = 2.85)

Gender and **education** emerged as significant predictors ($p < 0.05$). Respondents with higher education exhibited lower stigma, while those aged 50 and above displayed more fatalistic beliefs. Correlation analysis showed a negative relationship between **awareness level** and **stigma intensity** ($r = -0.61$), confirming that information and exposure reduce negative attitudes. Qualitative analysis further revealed that many respondents feared cancer patients' emotional instability and viewed them as "fragile" or "unfit for social engagement." This reflects a broader **paternalistic sympathy**, where patients are pitied but not accepted as equals. Stigma also

manifested structurally—some participants expressed reluctance to employ cancer survivors or rent homes to them due to perceived health risks.

Table 3: Descriptive and Inferential Statistics of Cancer Stigma Scale (CSS)**Sub-Domains among Urban Participants of Bhopal District (N = 400)**

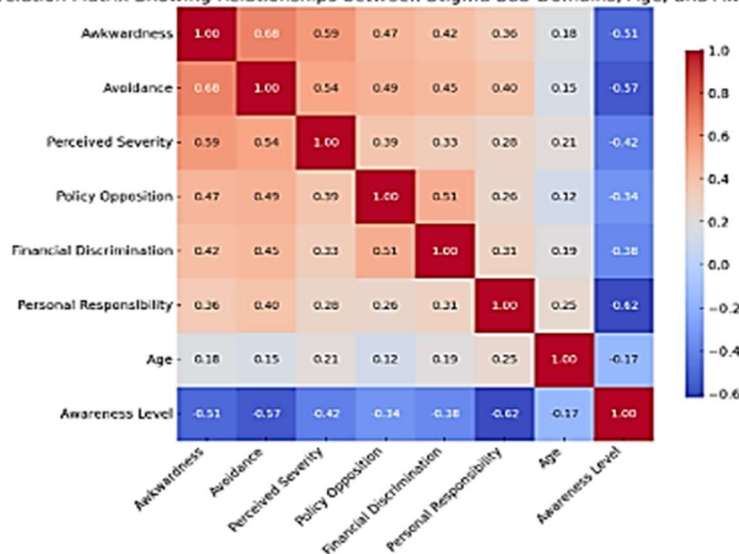
Sub-Domains of Cancer Stigma Scale (CSS)	Mean (M)	Standard Deviation (SD)	Minimum Score	Maximum Score	Gender Difference (t-value)	Significance (p)
1. Awkwardness in interaction	3.45	0.81	1.8	4.9	2.63	0.010
2. Avoidance behavior	3.42	0.76	1.9	4.8	2.95	0.004
3. Perceived severity and fatalism	3.21	0.84	1.5	5.0	1.87	0.062 (ns)
4. Policy opposition	2.78	0.69	1.2	4.6	1.45	0.149 (ns)
5. Financial discrimination	2.85	0.73	1.3	4.8	2.04	0.043
6. Personal responsibility (blame)	3.37	0.88	1.6	4.9	3.26	0.001
Overall Stigma Score (Composite Mean)	3.12	0.72	1.5	4.9	—	—

Note: Significance levels: $p < 0.05$ (), $p < 0.01$, ns = not significant.

The data presented in Table 3 summarize the mean scores and standard deviations for each sub-domain of the **Cancer Stigma Scale**. The highest mean scores were observed in **Awkwardness** ($M = 3.45$) and **Personal Responsibility** ($M = 3.37$), indicating that discomfort during interactions with cancer patients and tendencies to attribute cancer to personal choices or behaviors remain prominent forms of stigma. **Policy Opposition** ($M = 2.78$) and **Financial Discrimination** ($M = 2.85$) scored lower, reflecting comparatively reduced structural stigma in the urban setting. Gender-based analysis using independent samples **t-tests** revealed statistically significant differences in several domains — particularly in **Avoidance**, **Awkwardness**, and **Personal Responsibility**, where males scored higher than females ($p < 0.01$). This suggests that male respondents were more likely to express socio-economic and behavioral prejudices toward cancer

patients. The overall mean stigma score (3.12) represents a **moderate level of cancer-related stigma** within the urban population of Bhopal District.

Correlation Matrix Showing Relationships between Stigma Sub-Domains, Age, and Awareness Level



5. Discussion

The discussion of the present study reveals that the findings are consistent with global research emphasizing that cancer stigma is a complex and multidimensional construct deeply rooted in fear, misinformation, and moral judgment. Within the urban context of Bhopal, where educational attainment and access to healthcare are relatively better than in rural areas, the persistence of stigma underscores the enduring influence of cultural and psychosocial factors. Despite greater exposure to modern health communication and awareness initiatives, many individuals continue to associate cancer with death, impurity, or divine punishment. This reflects a broader cultural discomfort with discussing serious illnesses openly, which reinforces secrecy and silence around diagnosis. Social norms that value physical normalcy and productivity further marginalize individuals with visible signs of illness, creating emotional and social isolation. These findings suggest that knowledge alone does not eliminate stigma; rather, deeply ingrained cultural



narratives continue to shape public perceptions and interpersonal behaviors toward cancer patients in Bhopal.

The use of the Cancer Stigma Scale (CSS) in this study provided a structured framework to quantify and analyze these psychosocial responses, revealing critical insights into the persistence of avoidance, blame, and fatalistic attitudes. The analysis of sub-domains showed that avoidance behavior toward cancer survivors and the attribution of personal responsibility were particularly strong, reflecting a belief that lifestyle choices or moral failings contribute to the disease. Such perceptions intensify social distance and emotional withdrawal, exacerbating the psychological burden experienced by patients. Moreover, the findings demonstrate that stigma extends beyond the affected individuals, influencing public health behavior and decision-making. Fear of social exclusion or discrimination leads to delays in screening, diagnostic testing, and treatment adherence, which in turn contribute to poorer health outcomes and increased mortality. This interplay between stigma and healthcare behavior highlights the need for interventions that address not only medical literacy but also emotional and social dimensions of health communication.

When compared with previous studies conducted in larger metropolitan areas such as Delhi and Mumbai, the data from Bhopal suggest that stigma remains more pronounced in smaller urban centers. This may be attributed to closer-knit community networks, where privacy is limited and social scrutiny is higher, leading individuals to conceal illness out of fear of gossip or ostracization. The findings indicate that public health campaigns must move beyond mere dissemination of information toward strategies that foster attitudinal and behavioral change. Integrating empathy-building programs, survivor-led advocacy, and health literacy initiatives into schools, workplaces, and community organizations can create an environment of openness and support. Furthermore, involving local opinion leaders, religious institutions, and media platforms in destigmatization efforts can amplify positive narratives about survivorship and recovery. In conclusion, addressing cancer stigma in Bhopal requires a multidimensional approach that combines education with empathy, community engagement, and systemic support to foster social acceptance and encourage proactive health-seeking behavior.

6. Conclusion and Recommendations:



This research demonstrates that cancer stigma in urban Bhopal is a multidimensional and deeply embedded phenomenon influenced by socio-cultural norms, gender roles, and educational disparities. Despite increasing awareness and expanding access to healthcare information, stigmatizing beliefs about cancer persist and continue to shape social interactions, emotional responses, and treatment-seeking behavior. Misconceptions surrounding the causes and outcomes of cancer—often rooted in fear, fatalism, and moral judgment—lead to social distancing, self-isolation, and delayed medical intervention. The findings indicate that literacy and urban exposure alone are insufficient to dismantle stigma unless they are accompanied by targeted communication and community engagement strategies. Gender differences were also notable, with women reporting higher levels of social avoidance and fear of discrimination, reflecting broader patterns of vulnerability within patriarchal social structures. Similarly, lower educational attainment correlated with stronger fatalistic beliefs, demonstrating the importance of integrating health literacy into formal and informal education systems. The study highlights the urgent need for comprehensive anti-stigma initiatives that involve not only healthcare institutions but also schools, workplaces, and media platforms. Collaboration among medical professionals, educators, community leaders, and journalists can help challenge harmful stereotypes and normalize open dialogue about cancer prevention, treatment, and survivorship. Such multidimensional efforts are crucial for transforming societal attitudes, promoting early diagnosis, and improving the overall quality of life for individuals affected by cancer in urban India.

Key recommendations include:

1. **Health Communication Campaigns – Using local media and survivor stories to normalize conversations around cancer :** Local media and survivor stories are powerful tools to reduce fear and misinformation about cancer. By sharing real experiences and medical facts, these campaigns promote open dialogue, encourage early detection, and foster empathy, making discussions about cancer more accepted in everyday life.
2. **Community Workshops – Conducted in collaboration with NGOs to build empathy and dispel myths :** Community workshops organized with NGOs create awareness



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through discussions and survivor interactions. They help correct false beliefs about cancer, build empathy, and encourage supportive community attitudes, reducing discrimination and promoting early treatment-seeking behavior among participants.

3. **Gender-Specific Awareness Programs – Addressing female-specific cancers (breast, cervical) through culturally sensitive communication** : Gender-specific awareness programs target breast and cervical cancer, using culturally sensitive methods to promote screening and prevention. They empower women to discuss health issues openly and seek medical help without fear or social hesitation.
4. **Integration of Psycho-oncology Services – Offering counseling to patients and families to reduce self-stigma** : Psycho-oncology services provide emotional support and counseling to patients and families. They address fear, anxiety, and guilt, helping individuals rebuild confidence, cope better with treatment, and reduce self-stigma associated with cancer.
5. **Educational Curriculum Inclusion – Introducing cancer awareness in schools and colleges** : Incorporating cancer education in schools and colleges spreads awareness about prevention and empathy. It helps students understand the importance of early detection and eliminates misconceptions, fostering a compassionate attitude toward patients.
6. **Policy Advocacy – Ensuring equitable employment and insurance policies for cancer survivors** : Policy advocacy promotes fair employment and insurance rights for cancer survivors. It works to eliminate discrimination, ensuring equal opportunities and social acceptance, thereby improving survivors' reintegration into society and workplace environments.

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