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The Influence of Financial Status on Cancer Awareness, Risk Perception, Stigma, and Health Behaviors among Tertiary Students in Punjab

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ABSTRACT

Background: Socioeconomic differences shape cancer-related knowledge and behaviors; however, their influence is often complex and non-linear. This study examined the relationship between financial status and cancer awareness, risk perception, stigma, and health-promoting behaviors among tertiary students in Punjab, India.

Methods: A cross-sectional survey was conducted with 601 students. Financial status was classified using income categories derived from the revised Kuppuswamy scale. One-way analysis of variance with Bonferroni post-hoc tests was used to assess differences across groups.

Results: Significant differences were observed across the financial groups in terms of cancer awareness ($F = 19.700$, $p < .001$), risk perception ($F = 4.106$, $p = .007$), stigma ($F = 6.916$, $p < .001$), and health-promoting behaviors ($F = 21.128$, $p < .001$). Awareness and health behaviors were lowest in the low-income group ($M = 125.58$; $M = 83.85$) and highest in the middle-income group ($M = 144.93$; $M = 121.00$). Stigma was higher in the middle ($M = 92.34$) and high-income groups ($M = 93.93$), while risk perception did not increase consistently with income.

Conclusion: Financial status is nonlinearly associated with cancer-related outcomes. While higher income is linked to improved awareness and behaviors, it does not reduce stigma or uniformly increase perceived risks. Interventions should address both structural inequalities and psychosocial barriers across socioeconomic groups.

1. Introduction

Cancer remains one of the leading causes of morbidity and mortality worldwide, posing a significant and growing challenge to public health. According to the World Health Organization, cancer accounts for millions of deaths annually, with a disproportionate burden increasingly observed in low- and middle-income countries (World Health Organization 2020). In India, the rising incidence of cancer has been linked to a combination of demographic transitions, lifestyle changes, environmental exposures, and gaps in early detection and awareness (Jain, Mohanti, & Rath, 2018). Within this context, improving cancer awareness and promoting preventive health behaviors have become critical components of national and regional health strategies.

Young adults, particularly those in tertiary education, represent a crucial population for cancer prevention. This group is at a formative stage of life, where health-related knowledge, attitudes, and behaviors are actively shaped and likely to persist into adulthood. Studies have shown that awareness of cancer risk factors and engagement in health-promoting behaviors during early adulthood can significantly influence long-term health outcomes (Paneru et al. 2024). However, despite increased access to information in academic environments, misconceptions, stigma, and variations in perceived risk continue to affect young individuals understanding and responses to cancer-related issues.

Socioeconomic status has long been recognized as a key determinant of health, influencing access to resources, exposure to risk factors, and engagement with health care systems (Adler & Newman, 2002). Among its

components, financial capacity plays a particularly important role in shaping health behaviors by determining the ability to access preventive services, adopt healthy lifestyle, and seek timely medical care. Individuals with greater financial resources are generally more likely to engage in preventive health behaviors and demonstrate higher levels of health literacy. However, the relationship between financial status and health-related perceptions is not always linear or clear.

Emerging evidence suggests that while a higher financial status may facilitate access to health information and services, it does not necessarily translate into optimal health perceptions or attitudes. For instance, individuals in higher income groups may exhibit lower perceived susceptibility to disease due to a sense of security associated with access to healthcare, a phenomenon sometimes described as health optimism or perceived invulnerability (Sharma, Gupta, & Singh, 2018). Conversely, middle-income groups may demonstrate heightened risk perception due to increased awareness and perceived barriers to accessing comprehensive care. These patterns highlight the need to examine financial status not only as a determinant of access but also as a factor influencing psychological and behavioral responses to health risks.

In addition to awareness and risk perception, cancer-related stigma remains a significant barrier to prevention and early detection of the disease. Stigma can manifest as social exclusion, blame, fear, and secrecy, all of which may discourage individuals from seeking information, undergoing screening, or openly discussing symptoms (Marlow & Wardle, 2014). Interestingly, stigma is not confined to lower socioeconomic status groups. In some contexts, individuals from higher financial backgrounds may experience heightened stigma due to concerns about their social image, professional identity, and perceived reputational consequences (Broom & Doron, 2012). This paradox suggests that financial advantages do not necessarily protect against negative psychosocial responses to cancer.

Health-promoting behaviors, including physical activity, balanced nutrition, and proactive health management, are also influenced by financial status. While economic resources can enable healthier lifestyle choices, behavioural engagement is often shaped by a complex interplay of knowledge, attitudes, cultural norms, and perceived risk (Stamatakis, McBride, & Brownson, 2009). Consequently, individuals with similar financial resources may exhibit markedly different health behaviors depending on their perceptions and beliefs about disease risk and prevention.

In the Indian context, particularly in Punjab, these dynamics are further shaped by cultural norms, social expectations, and evolving patterns of urbanization and economic change. Punjab has experienced both economic growth and shifting lifestyle patterns, which have implications for cancer risk factors, such as diet, physical inactivity, and substance use. Simultaneously, variations in awareness, stigma, and healthcare access persist across different population segments, underscoring the importance of context-specific research.

Despite the growing body of literature on the socioeconomic determinants of health, there remains a gap in understanding how financial status specifically influences multiple dimensions of cancer-related outcomes among young adults in India. Most existing studies focus on single outcomes, such as awareness or screening behavior, without integrating psychosocial factors such as stigma and risk perceptions. Furthermore, the relationship between financial status and these variables is often assumed to be linear, overlooking the possibility of complex patterns.

This study addresses this gap by examining the association between financial status and cancer awareness, risk perception, stigma, and health-promoting behaviors among tertiary students in Punjab, India. Financial status was operationalized using income categories derived from the revised Kuppuswamy Socioeconomic Status scale, providing a contextually relevant measure of economic capacity. By analyzing these variables together, this study offers a more comprehensive understanding of how financial factors interact with the psychological and behavioral dimensions of cancer prevention.

Importantly, this study moves beyond traditional assumptions by exploring the possibility of nonlinear relationships between financial status and cancer-related outcomes. It investigates whether a higher financial status consistently confers advantages across all domains or whether certain psychosocial factors, such as stigma and perceived risk, follow more complex patterns. These insights are critical for designing targeted and contextually appropriate public health intervention strategies.

Thus, this study contributes to the literature by providing a multidimensional analysis of cancer-related awareness, perceptions, and behaviors in relation to financial status among young adults in Punjab. The findings aim to inform the development of equitable cancer prevention strategies that address both economic and psychosocial determinants of health, ultimately supporting more effective and inclusive public health intervention.

2. Methods

2.1 Study Design

This study employed a cross-sectional quantitative design to examine the association between financial status and cancer awareness, risk perception, stigma, and health-promoting behaviors among tertiary students in Punjab, India. Cross-sectional designs are widely used in public health research to assess the relationships between socioeconomic and behavioral variables within a defined population at a single point in time (Setia, 2016). This design is particularly appropriate for exploring patterns of health-related knowledge, attitudes, and behaviors in

population groups in which longitudinal follow-up may not be feasible.

2.2 Study Setting and Participants

The study was conducted among tertiary-level students across six districts of Punjab, India, namely, Patiala, Mansa, Tarn Taran, Sangrur, Gurdaspur, and Shri Muktsar Sahib. These districts were selected to capture a broad representation of the state's geographic and social diversity.

A multistage sampling approach was used to recruit the participants. In the first stage, districts were purposively selected based on their accessibility and representation of different regions. In the second stage, students were recruited from universities and colleges within the selected districts using convenience sampling methods. This approach is commonly used in student-based health research, where complete sampling frames are not readily available (Etikan, Musa, & Alkassim, 2016).

A total of 700 students participated in this study. After data cleaning and exclusion of incomplete responses, 601 questionnaires were retained for analysis, resulting in a response rate of 85.9 percent. The sample size was considered adequate for detecting statistically significant differences across groups and for conducting inferential statistical analyses, consistent with the recommendations for behavioral and social science research (Cohen, 1992).

2.3 Assessment of Financial Status

Financial status was assessed using the income component of the revised Kuppuswamy Socioeconomic Status Scale (2021), which provides standardized income categories tailored to the Indian context (Kumar, Singh, & Verma, 2021). The Kuppuswamy scale is widely used in Indian health research as a multidimensional measure of socioeconomic status that incorporates education, occupation, and income. However, in the present study, only the income component was utilized as an indicator of financial capacity, given its direct relevance to access to healthcare resources and engagement in health-promoting behaviors.

Participants were classified into four financial status groups based on their reported monthly household income (in Indian Rupees). These categories were defined as low income, ranging from ₹0 to ₹11,914; middle income, ranging from ₹11,915 to ₹39,638; middle higher income, ranging from ₹39,639 to ₹78,257; and higher income, defined as ₹78,258 and above. This classification enabled a meaningful comparison of cancer-related outcomes across distinct financial strata within the study population.

2.4 Data Collection Instruments

Data were collected using a structured, self-administered questionnaire comprising validated instruments that assessed the key study variables.

Cancer awareness was measured using the Cancer Awareness Measure, a widely used tool that evaluates knowledge of cancer symptoms, risk factors, and screening practices (Stubbings et al. 2009). This instrument has demonstrated strong validity and reliability across diverse populations.

Risk perception was assessed using the TRIRISK model, which captures the cognitive, emotional, and experiential dimensions of perceived susceptibility to health risks (Ferrari et al., 2017). This multidimensional approach provides a more comprehensive understanding of how individuals perceive their vulnerability to cancer.

Cancer-related stigma was measured using the Cancer Stigma Scale, which evaluates attitudes such as blame, social exclusion, and secrecy associated with cancer (Marlow and Wardle, 2014). This scale has been widely applied in psychosocial oncology studies.

Health-promoting behaviors were assessed using the Health-Promoting Lifestyle Profile II, which measures engagement in behaviors such as nutrition, physical activity, health responsibility, and stress management (Walker et al., 1995). This instrument has demonstrated good reliability and cross-cultural applicability (Lippincott, 2013).

All questionnaire items were measured using Likert-type response scales, which allowed for the quantification of attitudes and behaviors across multiple domains.

2.5 Reliability

Prior to the main data collection, the questionnaire was pilot tested among a small group of tertiary students to assess its clarity, comprehension, and cultural appropriateness. Feedback obtained during this phase informed revisions to the item wording and questionnaire structure.

The internal consistency of the scales was evaluated using Cronbach's alpha, a widely accepted measure of reliability in social and behavioral research (Tavakol & Dennick, 2011). All subscales demonstrated acceptable levels of internal consistency, with alpha values meeting the recommended threshold of 0.70 or higher.

2.6 Data Collection Procedure

Data collection was conducted over three months following approval from the institutional authorities. Students who met the inclusion criteria were invited to participate in this study. The purpose of the study was explained, and written informed consent was obtained prior to participation.

Participants completed the questionnaire anonymously to encourage honest and unbiased responses, particularly for sensitive topics, such as stigma and personal health perceptions. No personally identifiable information was collected, and confidentiality was strictly maintained throughout the study period.

2.7 Data Analysis

Data were analyzed using IBM SPSS Statistics version 26. Descriptive statistics were computed to summarize the demographic characteristics and distribution of key variables.

Inferential statistical analyses were conducted to examine the differences in cancer awareness, risk perception, stigma, and health-promoting behaviors across the financial status groups. One-way analysis of variance was used to test for statistically significant differences between the groups. When significant differences were identified, Bonferroni post-hoc tests were applied to determine specific group differences while controlling for Type I error (Field, 2013).

Effect sizes were calculated to assess the magnitude of the observed differences, providing additional insight into the practical significance of the findings. Statistical significance was set at p of less than 0.05.

2.8 Ethical Considerations

This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the Institutional Ethics Committee of the Desh Bhagat University. All participants were informed of the purpose of the study, their role in the research, and their rights, including the right to withdraw at any time without consequence. Written informed consent was obtained from all participants before data collection. Confidentiality and anonymity were strictly maintained, and the data were used solely for academic and research purposes.

3. Results

3.1 Demographic Characteristics

A total of 601 respondents were included in the final analyses. The demographic profiles of the participants are presented in Table 1. The sample comprised students from six districts across Punjab, ensuring geographical representation. Most participants were aged 18–24 years (64.2%), reflecting the typical age distribution of tertiary-level students. Participants aged 25–29 and 30–35 years accounted for 17.5% and 18.3% of the sample, respectively.

The gender distribution was relatively balanced, with 53.9% of the respondents being male and 46.1% female. In terms of educational level, most participants were enrolled in undergraduate programs (58.9%), followed by postgraduate students (28.1%). A smaller proportion was classified as having higher education and other categories. In all, the sample represents a predominantly young and academically active population, which is appropriate for examining cancer-related awareness and behaviours in a tertiary education context

Table 1: Demographic Profile of Respondents

Variable	Category	Frequency	Percent (%)
District	Gurdaspur	91	15.1
	Mansa	104	17.3
	Patiala	118	19.6
	Sangrur	93	15.5
	Tarn Taran	79	13.1
	Shri Muktsar	116	19.3
Age Group	18–24 years	386	64.2
	25–29 years	105	17.5
	30–35 years	110	18.3
Gender	Male	324	53.9
	Female	277	46.1
Educational Level	Undergraduate	354	58.9
	Postgraduate	169	28.1
	Higher	7	1.2
	Others	71	11.8

3.2 Distribution of Financial Status

The distribution of participants across financial status groups is shown in Table 2. The sample was predominantly concentrated in the middle-income (49.6%) and middle higher-income (36.9%) categories, which together accounted for 86.5% of respondents. In contrast, the low-income (6.7%) and higher-income (6.8%) groups were less represented.

This distribution indicates that the study population largely reflects students from moderate financial backgrounds, with relatively fewer participants at the socioeconomic extremes. This pattern is important for interpreting differences in cancer-related outcomes across financial strata.

Table 2: Financial Status of Respondents

Financial Status	Frequency	Percent (%)
Low (₹0 – ₹11,914)	40	6.7
Middle (₹11,915 – ₹39,638)	298	49.6
Middle Higher (₹39,639 – ₹78,257)	222	36.9
Higher (₹78,258 and above)	41	6.8

3.3 Differences in Cancer Awareness, Risk Perception, Stigma, and Health-Promoting Behaviours

The descriptive statistics and one-way analysis of variance results examining differences across the financial status groups are presented in Tables 3 and 4. Significant differences were observed across all variables, including cancer awareness ($F = 19.700$, $p < .001$), risk perception ($F = 4.106$, $p = .007$), stigma ($F = 6.916$, $p < .001$), and health promoting behavior ($F = 21.128$, $p < .001$).

Cancer awareness increased from the low-income group ($M = 125.58$, $SD = 16.71$) to the middle ($M = 137.71$, $SD = 17.41$) and peaked in the middle higher-income group ($M = 144.93$, $SD = 15.33$), followed by a decline in the highest income group ($M = 135.61$, $SD = 13.61$). This pattern is supported by Bonferroni comparisons, which showed that the low-income group scored significantly lower than all other groups. The middle higher-income group also scored significantly higher than both the middle- and highest-income groups, confirming that the highest awareness levels were concentrated in this group rather than in the highest income category.

Health-promoting behaviors followed a similar pattern. Scores rose from the low-income group ($M = 83.85$, $SD = 29.40$) to the middle ($M = 111.93$, $SD = 31.52$) and reached the highest level in the middle-higher income group ($M = 121.00$, $SD = 30.48$) before decreasing in the highest-income group ($M = 96.22$, $SD = 27.04$). Post hoc comparisons showed that the low-income group scored significantly lower than both middle-income groups, while the middle higher-income group scored significantly higher than both the middle- and highest-income groups. Differences between the middle- and high-income groups were also significant, with higher scores observed in the middle-income group. These results indicate that stronger engagement in health-promoting behaviors is concentrated in the middle-to higher-income group rather than increasing steadily with financial status.

Risk perception did not follow a linear trend. The middle-income group reported the highest perceived risk ($M = 39.89$, $SD = 20.69$), followed closely by the middle-higher group ($M = 39.12$, $SD = 19.01$), while the highest-income group reported the lowest levels ($M = 29.56$, $SD = 25.41$). Post-hoc comparisons showed that the highest-income group had lower perceived risk compared to the middle and middle higher groups. This indicates a decrease in perceived susceptibility among individuals in the highest income category.

Stigma showed a different pattern, with scores increasing across the financial groups. The low-income group reported lower stigma ($M = 83.10$, $SD = 35.28$), whereas higher values were observed in the middle ($M = 92.34$, $SD = 25.74$) and highest-income groups ($M = 93.93$, $SD = 34.67$). Post hoc results indicated a significant difference between the middle and middle higher groups, with higher stigma in the latter. This suggests that the rise in stigma becomes more pronounced beyond the middle-income levels.

The pattern across variables reflected a non-linear relationship between financial status and cancer-related outcomes. Middle-to higher-income participants consistently showed the most favorable levels of awareness and health-promoting behaviors, while the highest-income group was characterized by lower perceived risk and relatively higher stigma.

Table 3: *Descriptive Statistics and One-Way ANOVA Results for Cancer Awareness, Risk Perception, Stigma, and Health Behavior across Financial Status Groups*

Variable	Financial Status	N	Mean	Std. Deviation	Std. Error	F-value	Sig.
Cancer Awareness	Low	40	125.58	16.71	2.64	19.700	< .001
	Middle	298	137.71	17.41	1.01		
	Middle Higher	222	144.93	15.33	1.03		
	Higher	41	135.61	13.61	2.13		
Risk Perception & Susceptibility	Low	40	32.88	22.25	3.52	4.106	.007
	Middle	298	39.89	20.69	1.20		
	Middle Higher	222	39.12	19.01	1.28		
	Higher	41	29.56	25.41	3.97		
Stigma	Low	40	83.10	35.28	5.58	6.916	< .001
	Middle	298	81.95	27.85	1.61		
	Middle Higher	222	92.34	25.74	1.73		
	Higher	41	93.93	34.67	5.41		
Health Behaviour	Low	40	83.85	29.40	4.65	21.128	< .001
	Middle	298	111.93	31.52	1.83		
	Middle Higher	222	121.00	30.48	2.05		
	Higher	41	96.22	27.04	4.22		

Table 4: Bonferroni Post-Hoc Multiple Comparisons for Cancer-Related Variables Across Financial Status Groups

Dependent Variable	Comparison (I–J)	Mean Difference	Std. Error	Sig.
Cancer Awareness	Low vs. Middle	-12.14*	2.76	.000
	Low vs. Middle Higher	-19.35*	2.81	.000
	Low vs. Higher	-10.03*	3.64	.036
	Middle vs. Middle Higher	-7.22*	1.45	.000
	Middle vs. Higher	2.10	2.73	1.000
	Middle Higher vs. Higher	9.32*	2.79	.005
Risk Perception	Middle vs. Higher	10.33*	3.42	.016
	Middle Higher vs. Higher	9.56*	3.49	.038
Stigma	Middle vs. Middle Higher	-10.39*	2.50	.000
Health Behaviour	Low vs. Middle	-28.08*	5.17	.000

	Low vs. Middle Higher	-37.15*	5.28	.000
	Low vs. Higher	-12.37	6.83	.423
	Middle vs. Middle Higher	-9.06*	2.72	.006
	Middle vs. Higher	15.71*	5.12	.013
	Middle Higher vs. Higher	24.78*	5.22	.000

*Significant at $p < .05$

4. Discussion

This study examined the relationship between financial status and cancer awareness, risk perception, stigma, and health-promoting behaviors among tertiary students in Punjab. The findings reveal a complex pattern in which improvements in awareness and health behaviors do not extend uniformly across all financial groups, and in some cases, move in the opposite direction to stigma and perceived risk.

Higher financial status was associated with better cancer awareness, particularly among students in the middle-and higher-income groups. This aligns with existing evidence that socioeconomic advantage is linked to improved access to health information, educational resources and preventive knowledge (Adler & Newman, 2002; Cutler & Lleras-Muney, 2010). Students from financially stable backgrounds are more likely to encounter health information through formal education, digital media, and healthcare interactions, which enhances their understanding of cancer risk factors and prevention. However, the pattern observed here was not strictly linear, as awareness did not continue to increase in the highest-income group. This suggests that beyond a certain threshold, additional financial advantages may not translate into greater health knowledge, possibly due to complacency or reduced engagement with preventive messaging.

A similar pattern emerged for health-promoting behaviours. Students in the middle higher-income group reported the most favorable behavioral profiles, while those in the lowest income group reported the least. This is consistent with research showing that financial resources influence the ability to adopt healthy lifestyles, including access to nutritious food, opportunities for physical activity and preventive healthcare (Marmot, 2005). Simultaneously, the decline observed in the highest income group suggests that access alone does not guarantee sustained engagement in healthy behaviors. Lifestyle factors associated with affluence, including sedentary routines and dietary patterns, may counteract the potential benefits of a higher socioeconomic status.

Risk perception followed a different trajectory from the other variables. Students in the highest income group reported the lowest perceived cancer risk, despite relatively high awareness levels. This disconnect between knowledge and perceived vulnerability has been reported in previous studies and is often explained by optimistic bias, where individuals believe they are less likely than others to experience adverse health outcomes (Weinstein, 1987). Greater financial security may reinforce a sense of control over health, leading individuals to underestimate their susceptibility to disease, even when they are informed about the risk factors. In contrast, students in the middle-income group reported higher perceived risk, which may reflect a balance between awareness and perceived exposure to risk factors.

The pattern observed for the stigma is particularly noteworthy. Stigma was higher among students in the middle and higher income groups, indicating that financial advantage does not necessarily reduce negative attitudes toward cancer. This finding challenges the common assumption that stigma is primarily concentrated among less educated or economically disadvantaged populations. Cultural beliefs, fear of social consequences, and misconceptions about cancer may persist across all socioeconomic levels and, in some cases, may be reinforced by concerns about social image, marriage prospects, or perceived status within the community (Link & Phelan, 2001). Among more affluent groups, stigma may take more subtle forms, such as social distancing or reluctance to discuss cancer.

Taken together, these findings highlight that financial status interacts with cancer-related outcomes in a multidimensional manner. Gains in awareness and behavior do not automatically translate into healthier perceptions or reduced stigma. This underscores the importance of addressing psychosocial factors alongside structural determinants when designing public health intervention strategies.

These results have practical implications for cancer education and prevention. Interventions targeting lower-income students should prioritize improving access to accurate information and support behavior change through affordable and accessible health promotion initiatives. Simultaneously, programs aimed at higher-income groups should focus more explicitly on addressing stigma and correcting misperceptions of risk. Messaging that challenges optimistic bias and encourages a realistic appraisal of personal risk may be particularly important in this context.

This study also contributes to the growing literature on socioeconomic gradients in health by demonstrating that these relationships are not always linear or uniform. The identification of the middle-and higher-income groups as consistently performing better in awareness and behavior suggests that these groups may represent an optimal balance between access to resources and engagement with health information. Future research should explore the mechanisms underlying this pattern, including the roles of education, social networks, and exposure to health communication.

Certain limitations should be considered when interpreting the findings of this study. First, the cross-sectional design does not allow for causal inferences, and the use of convenience sampling may limit the generalizability of the results beyond the study population. Financial status was assessed using income categories derived from the Kuppuswamy scale, which, although widely used, captures only one dimension of socioeconomic status. Additionally, reliance on self-reported data may introduce response bias, particularly for sensitive constructs such as stigma and health behaviors.

Future studies could build on this work by incorporating longitudinal designs to examine how these relationships evolve over time and by including additional indicators of socioeconomic status, such as education and occupation. There is also scope for qualitative research to explore the underlying reasons for higher stigma and lower perceived risk among affluent groups.

This study provides evidence that financial status shapes cancer-related awareness, behaviors and perceptions in nuanced ways. Efforts to improve cancer prevention among young adults should move beyond a purely economic lens and address the psychological and social dimensions that influence individuals understanding and response to cancer risk.

5. Conclusion

This study examined the relationship between financial status and cancer awareness, risk perception, stigma, and health-promoting behaviors among tertiary students in Punjab. The findings show that financial status plays an important role in shaping cancer-related outcomes; however, the relationship is not uniform across all dimensions.

Higher financial status was associated with better awareness and greater engagement in health-promoting behaviors, particularly among students in the middle-and higher-income groups. However, these advantages did not extend to all outcomes. Students in higher income groups reported lower perceived risk and higher levels of stigma, indicating a disconnect between knowledge, perception and attitudes.

These findings suggest that improvements in socioeconomic conditions alone may not be sufficient to address the cancer-related challenges faced by young adults. Public health strategies should adopt a more balanced approach that combines efforts to improve access to information and resources with interventions that address stigma, misconceptions, and unrealistic risk perceptions.

Targeted and context-sensitive interventions are required across all financial groups. For lower-income populations, efforts should focus on strengthening awareness and enabling healthy behavior. For higher-income groups, greater attention should be given to reducing stigma and promoting accurate risk perceptions. Addressing both structural and psychosocial factors is essential for improving cancer prevention and early detection in this population.

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