The PsyCaB Model: A Behavioral and Psychosocial Theory for Cancer Management

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Abstract

Cancer is a major public health concern. However, increasing awareness has not always led to better prevention or early help seeking. This study introduces the Psychosocial Cancer Behaviour (PsyCaB) Model to explain how people respond to cancer in real-world situations. The model is based on research conducted among tertiary students in Punjab, India. It examines awareness, perceived risks, stigma, emotional responses, and access to care.

The findings show that knowledge alone does not lead to action. Many people are aware of the risks and symptoms of cancer but do not perceive themselves as being at risk. Fear and anxiety also affect decision-making. Some people avoid seeking care because of these feelings. Stigma and fear of social judgment further delay help-seeking. Simultaneously, social support and access to healthcare influence people's actions.

The PsyCaB Model combines these factors. This shows that behaviour develops through the interaction of psychological, social, and structural influences. It also shows that behaviour can change over time.

This study highlights the need to go beyond awareness. Interventions should also address emotions, stigma, and access to care issues. This model can guide future research and support better approaches to cancer prevention and care.

Keywords: Cancer behavior; Awareness; Risk perception; Stigma; Psychosocial factors; Social support; Health systems; Preventive behavior

1.0 Introduction

Cancer is a group of diseases characterised by uncontrolled growth and spread of abnormal cells. It can develop in different parts of the body and is influenced by various factors, including genetics, environmental exposures, lifestyle choices, and infections (Sarkar et al., 2013). Cancer has become a leading cause of death worldwide. This shift is partly due to improvements in the prevention and treatment of other major conditions, such as cardiovascular disease. Consequently, cancer is projected to become the leading cause of premature death in many countries in the coming decades (Bray et al., 2021).

Despite significant advances in detection and treatment, cancer cannot be fully understood through a biomedical perspective alone. Research shows that how people experience cancer is also shaped by psychological, social, and contextual factors, including emotional responses, personal beliefs, social attitudes, and access to information and care (Institute of Medicine 2008; Holland et al. 2015). These factors influence not only how individuals interpret symptoms and diagnoses but also how they engage with prevention, screening, and treatment.

These challenges are often more pronounced in low- and middle-income settings, where limited access to healthcare, misconceptions about cancer, and persistent stigma can delay diagnosis and treatment of the disease. Even when individuals are aware of the benefits of early detection, fear, stigma, and concerns about social consequences may prevent them from seeking care (Farmer et al., 2010; Sankaranarayanan 2014). This highlights the gap between knowledge and action, which remains a critical issue in cancer prevention.

Psychosocial oncology research has increasingly shown that non-medical factors play a central role in cancer outcome. Emotional distress, social isolation, and lack of support can affect screening uptake, treatment adherence, and overall well-being (Holland et al., 2015; Stanton et al., 2015). Cancer is therefore not only a medical condition but also a deeply personal and social experience, often accompanied by uncertainty, fear, and disruption of everyday life.

Existing health behaviour theories, such as the Theory of Planned Behaviour (Ajzen, 1991) and Health Belief Model (Rosenstock et al., 1988), have provided valuable insights into how individuals make health-related decisions. However, these models tend to focus mainly on cognitive processes and may not fully capture the emotional, social, and structural realities that shape cancer-related behaviours (Brewer et al., 2007).

In response to these limitations, this study introduces the psychosocial cancer behaviour (PsyCaB) model. Drawing on empirical evidence (Elliason, 2026) and existing research, this model offers a more integrated framework for understanding how individuals experience and respond to cancer. It brings together awareness, perceived risk, emotional responses, stigma, social support, and structural conditions to explain behaviour across the cancer continuum. By doing so, the model provides a stronger basis for research and for developing interventions that address not only knowledge but also the broader factors that influence cancer prevention, diagnosis, and care.

2.0 Literature Review

2.1 Psychosocial Dimensions of Cancer

Cancer has increasingly been recognised as more than a biomedical condition, with research showing that psychological and social factors play a central role in how individuals experience and respond to the disease itself. Beyond diagnosis and treatment, individuals often face fear, uncertainty, emotional distress, and disruption of social relationships. These experiences shape not only the quality of life but also engagement with prevention, diagnosis, and treatment processes.

Psychosocial oncology has highlighted how emotional responses, such as anxiety, fear of death, and uncertainty about the future, influence health behaviour. For some individuals, these responses may encourage early help-seeking and adherence to treatment. For others, they may lead to avoidance, denial, or delays in seeking care. This variation suggests that emotional responses do not operate uniformly but interact with other factors in shaping behaviour (Holland et al., 2015; Stanton et al., 2015).

In addition to emotional experiences, cancer is embedded in social meaning. In many settings, the disease is associated with fear, fatalism, or moral judgment, which can affect how openly it is discussed and how individuals respond when symptoms manifest. These psychosocial dimensions indicate that cancer-related behaviours cannot be fully understood from clinical or cognitive perspectives alone.

2.2 Risk Perception and Awareness

Awareness of cancer risk factors and symptoms has long been a central focus of public-health interventions. However, evidence consistently shows that awareness does not always translate into actions. Individuals may understand the general risks associated with cancer but fail to perceive these risks as personally relevant.

This gap between awareness and perceived susceptibility has been widely documented in the literature. Studies have shown that individuals often exhibit optimism bias, believing that they are less likely than others to experience negative health outcomes (Weinstein, 1987). As a result, even when knowledge is present, the absence of perceived personal risk can reduce motivation to engage in preventive behaviours, such as screening or early consultation.

Risk perception is not formed purely through a rational evaluation. It is shaped by personal experiences, cultural beliefs, emotional responses, and social comparisons. This means that two individuals with similar levels of

knowledge may interpret risk differently and respond differently. These findings suggest that awareness alone is insufficient and must be understood in relation to how risk is interpreted and internalized (Brewer et al., 2007; Wardle et al., 2015).

2.3 Cancer Stigma and Social Meaning

Stigma remains one of the most significant barriers to cancer prevention and care. It operates through processes such as labelling, stereotyping, exclusion, and anticipated discrimination, which influence whether individuals feel comfortable discussing cancer or seeking help for their condition.

In many cultural contexts, cancer is associated with fear, shame and social judgment. Individuals may worry about being treated differently, facing social rejection, or causing distress to their families. These concerns can lead to silence, delayed diagnosis, and reduced engagement with treatment, even when individuals are aware of the risks and available services.

Research has shown that stigma can act as a barrier at multiple stages of the cancer continuum, including prevention, diagnosis, and post-treatment. It can discourage open communication, limit social support, and reinforce avoidance of behaviours. Importantly, stigma does not operate independently but interacts with emotional responses and social environments, making its effects more complex (Link & Phelan, 2001; Else-Quest et al., 2009; Phelan et al., 2014).

2.4 Social Support and Relational Influences

Health behaviour, particularly in the context of cancer, is rarely an individual process. Family members, peers, healthcare providers, and community networks play a role in shaping how individuals interpret symptoms, make decisions, and engage in care.

Supportive relationships can facilitate behaviour change by reducing emotional distress, encouraging help-seeking, and improving access to information and services. Individuals who feel supported are more likely to disclose their concerns, seek screening, and adhere to treatment recommendations. In contrast, weak or judgmental social environments may reinforce fear, silence, and avoidance among victims.

Social support interacts with other psychosocial factors. For example, it can buffer the effects of stigma and help individuals manage their emotional distress. This highlights the importance of viewing behaviour as socially embedded rather than purely individual (Thoits, 2011; Bandura, 2004).

2.5 Structural and Health System Influences

While psychosocial factors are critical, they operate within broader structural and institutional contexts that shape access to care. Healthcare availability, affordability, service quality, and system navigation all influence whether individuals can act on their intentions.

In many low- and middle-income settings, barriers such as cost, distance to healthcare facilities, limited availability of screening services, and lack of information about where to seek care can delay diagnosis and treatment of these diseases. Even when individuals are motivated, these constraints can prevent them from taking action.

Structural conditions also influence trust in healthcare systems and the perceived value of seeking care. Poor experiences with healthcare providers and uncertainty about service quality may discourage engagement. These findings suggest that cancer-related behaviour must be understood not only in terms of psychosocial factors but also in relation to the systems within which individuals operate (Farmer et al., 2010; Sankaranarayanan 2014).

2.6 Limitations of Existing Behavioural Models

Several theoretical models have been used to explain health behaviour, including the Health Belief Model, Theory of Planned Behaviour, and Social Cognitive Theory (SCT). These frameworks have significantly contributed to understanding how individuals perceive risk, form intentions, and make decisions.

However, these models often emphasise individual cognition and intention, with less attention to emotional experiences, stigma, relational influences, and structural constraints. While some models acknowledge environmental factors, they are frequently treated as secondary rather than central components.

This limitation is particularly evident in the context of cancer. Decisions regarding screening, diagnosis, and treatment are not shaped by knowledge alone but by a combination of emotional responses, social meaning, support systems, and access to care. Consequently, existing models may not fully capture the complexity of cancer-related behaviour in real-world settings, particularly in contexts where stigma and structural barriers are prominent.

2.7 Rationale for the PsyCaB Model

The literature reviewed highlights a consistent pattern: cancer-related behaviour is influenced by multiple interacting factors, yet these factors are often studied in isolation. Awareness, perceived risk, emotional responses, stigma, social support, and structural conditions all contribute to behaviour. However, existing frameworks do not fully integrate these elements into a single coherent model.

This gap creates the need for a framework that reflects how these influences operate in practice. The PsyCaB Model addresses this need by conceptualising cancer-related behaviour as the outcome of interacting psychosocial and structural conditions. Rather than focusing on isolated predictors, it emphasises the relationships between these factors and how they shape behaviour across the cancer continuum.

By integrating insights from psychosocial oncology, behavioural science, and empirical research, the PsyCaB provides a more comprehensive and context-sensitive approach to understanding cancer-related behaviour. This foundation supports both the theoretical development and design of interventions that address the realities of cancer care.

3.0 Conceptual Structure of the PsyCaB Model

3.1 Overview of the PsyCaB Model

The PsyCaB Model explains cancer-related behaviour as the result of several factors working together rather than a simple step-by-step process from knowledge to action. In real life, people do not always act because they have information. Their decisions are shaped by how they feel, how they perceive their own risk, how others around them respond, and whether the health system supports them.

The model is based on the idea that health behaviours develop within a wider environment. This includes not only the individual but also relationships, communities, and healthcare systems. This way of thinking is consistent with ecological approaches in public health, which show that behaviour is simultaneously influenced by multiple levels at the same time (Bronfenbrenner, 1979; McLeroy et al., 1988).

PsyCaB integrates these influences into a single framework. It focuses on six main areas: awareness, perceived risk, emotional response, stigma, social support, and structural conditions. These areas are closely connected and shape how people respond to cancer prevention, diagnosis, treatment, and survivorship.

3.2 Core Components of the PsyCaB Model

3.2.1 Awareness

In this model, awareness is not merely about having information. It is about whether that information makes sense to a person and is relevant to their life. Public health often assumes that awareness leads to action; however, this is not always the case (Nutbeam, 2008).

People may know about cancer symptoms or risk factors but still do not act if the information feels distant or not personally important. PsyCaB therefore treats awareness as an important starting point, but not as something that automatically leads to behaviour change.

3.2.2 Perceived Risk

Perceived risk refers to the likelihood that an individual believes they will develop cancer. This is not always based solely on facts. Individuals interpret risk through their experiences, beliefs, and emotions.

Research shows that individuals often believe they are less at risk than others, even when they have the same level of knowledge (Brewer et al., 2007; Weinstein, 1987). Therefore, two people with the same awareness can behave very differently. In PsyCaB, perceived risk helps explain whether awareness leads to action.

3.2.3 Emotional Response

Cancer is strongly linked to emotions such as fear, anxiety, and uncertainty. These feelings play an important role in shaping the behaviour. They can sometimes push people to seek help; however, in other cases, they can lead to avoidance or delay (Leventhal et al., 1997; Holland et al., 2015).

PsyCaB treats emotional responses as key components of decision-making. What matters is not just what people know but how they feel about what they know and whether those feelings are manageable.

3.2.4 Stigma

Stigma refers to the negative social meaning attached to cancer. This can include fear of being judged, treated differently, or socially excluded. These concerns can make people less willing to talk about cancer or seek help for it.

Studies have shown that stigma can delay diagnosis and reduce engagement with care, even when services are available (Link & Phelan, 2001; Else-Quest et al., 2009). In PsyCaB, stigma is seen as a major barrier that can block the movement from awareness to action.

3.2.5 Social Support

Individuals do not deal with cancer alone. Family, friends, healthcare providers, and the wider community influence how individuals respond to the disease.

Supportive relationships can reduce fear, encourage help-seeking, and help people remain in treatment. However, a lack of support or negative reactions can increase isolation and delay action (Thoits, 2011; Bandura, 2004).

In PsyCaB, social support plays a central role in shaping behaviour and can either strengthen or weaken the effects of other factors, such as stigma and emotional distress.

3.2.6 Structural and Institutional Conditions

Behaviour is also shaped by the systems on which people depend. This includes access to healthcare, cost of services, quality of care, and ease of navigating the system.

Even when people are willing to act, structural barriers can prevent them from doing so. In many settings, limited services, long distances, and high costs delay diagnosis and treatment (Farmer et al., 2010). PsyCaB includes these structural factors to show that behaviour is not only a personal choice but is also influenced by the conditions people live in. The key components of the PsyCaB Model are presented below, with their interconnections shown in Figure 1.

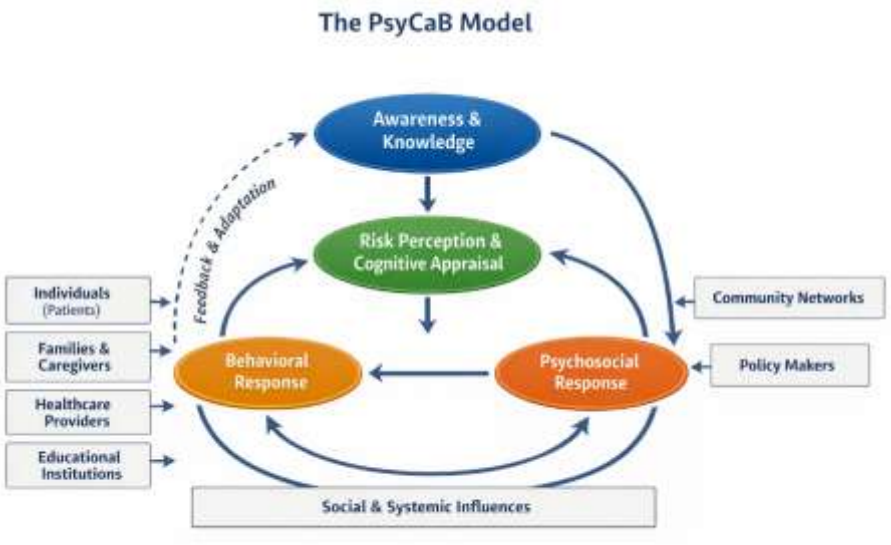

Figure 1. The PsyCaB Model. *A dynamic framework illustrating the relationships between awareness, perceived risk, emotional response, stigma, social support, and structural conditions. The model highlights the interaction between components, feedback processes over time, and the influence of social and health system contexts.*

3.3 Interaction of Components

A key idea in PsyCaB is that these factors do not work separately. These factors influence each other.

For example, awareness may increase perceived risk, but stigma or fear may prevent action. Strong social support may help reduce fear and make it easier to seek care in patients with diabetes. Simultaneously, good healthcare systems can support people in acting on their intentions. This means that behaviour is shaped by a combination of influences, not a single factor. As illustrated in Figure 1, a key idea in PsyCaB is that these factors do not work separately.

3.4 Feedback and Change Over Time

PsyCaB also recognises that behaviour changes over time. People learn from their experiences, which affect their subsequent actions.

For instance, a positive experience with screening may reduce fear and encourage future checkups. Negative experiences, such as stigma or poor treatment, may lead to avoidance.

This shows that cancer-related behaviours are not fixed. It develops over time as people adjust their beliefs, emotions and actions.

3.5 Multi-Level Perspective

The model combines influences at different levels.

- **Individual level** – awareness, risk perception, emotions
- **Interpersonal level** – family, peers, support systems
- **Community level** – social norms and stigma
- **Institutional level** – healthcare systems and policies

Considering all these levels together helps explain why behaviour varies across different people and settings. This also shows that improving cancer outcomes requires action beyond the individual.

4.0 Empirical Foundations of the PsyCaB Model

4.1 Empirical Basis of Model Development

The PsyCaB Model is primarily grounded in empirical research conducted as part of a doctoral study examining cancer awareness, risk perception, stigma, and psychosocial responses among tertiary students in Punjab, India (Elliason, 2026). This study explored how young adults understand cancer and how this understanding influences their attitudes and behaviours toward cancer prevention and care.

The findings revealed a consistent pattern: **cancer knowledge did not necessarily translate into preventive action or timely help-seeking**. Although many participants demonstrated awareness of cancer risk factors and symptoms, this awareness often did not result in screening behaviour, early consultation, or sustained engagement with care services.

This pattern aligns with broader evidence showing that knowledge alone is insufficient to drive health behaviour change (Brewer et al., 2007; Wardle et al., 2015). However, the findings of Elliason (2026) provide context-specific insights into how this gap operates among young adults in real-world settings. These results formed the foundation for the development of the PsyCaB Model.

4.2 Key Empirical Insights Informing the Model

4.2.1 Awareness Without Action

A key finding of this study was the clear disconnect between awareness and behaviour. Participants were able to identify cancer risk factors and symptoms; however, many did not engage in preventive practices or express strong intentions to seek early medical care (Elliason 2026).

This supports existing research showing that awareness alone does not consistently lead to behaviour change (Nutbeam 2008). Within PsyCaB, this finding informs the positioning of awareness as an important but insufficient factor in shaping cancer-related behaviours.

4.2.2 Low Perceived Personal Risk

Despite having general knowledge about cancer, many participants did not perceive themselves as being at risk of developing the disease. Cancer is often perceived as a condition affecting others rather than oneself, particularly among younger individuals (Elliason, 2026).

This finding reflects well-established patterns of optimism bias, in which individuals underestimate their personal risks (Weinstein, 1987). Low perceived risk reduces the motivation to engage in preventive behaviours, reinforcing its role as a key mechanism linking awareness to action in the PsyCaB Model.

4.2.3 Influence of Stigma on Behavior

Stigma emerged as a significant barrier to engagement with cancer-related care. Participants expressed concerns about being labelled, judged, or socially excluded if they were diagnosed with cancer (Elliason et al., 2025).

These concerns contributed to the reluctance to discuss cancer openly and the hesitation in seeking help, even when symptoms were recognised. This finding is consistent with broader research showing that stigma can delay diagnosis and reduce healthcare utilisation (Link & Phelan, 2001; Else-Quest et al., 2009). In PsyCaB, stigma is a central barrier that disrupts the pathway from awareness to action.

4.2.4 Emotional Responses and Their Effects

Emotional reactions, such as fear, anxiety, and uncertainty, are commonly associated with cancer (Elliason, 2026). These responses influenced how participants engaged with cancer-related information and decisions.

While some individuals reported increased concern, others demonstrated avoidance or reluctance to seek treatment during the pandemic. This dual role of emotion is supported by research showing that emotional

responses can both motivate and inhibit health behaviours (Holland et al., 1997; Holland et al., 2015). These findings informed the inclusion of emotional responses as core components of the PsyCaB Model.

4.2.5 Role of Social Support

Evidence from related research involving cancer patients showed that individuals with strong social support systems were better able to cope with diagnosis and treatment and were more likely to remain engaged in care (Elliason et al., 2025).

Support from family and healthcare providers is associated with improved emotional well-being and better adjustment to treatment. This aligns with the wider evidence on the role of social relationships in health behaviour (Thoits 2011). Within PsyCaB, social support is conceptualised as a factor that can strengthen engagement and reduce the negative effects of stigma and emotional distress.

4.2.6 Structural Constraints on Action

This study also highlights the role of broader structural conditions in shaping behaviour. Even when individuals were willing to act, barriers such as cost, access to healthcare services, and uncertainty about where to seek care influenced their decisions (Elliason, 2026).

These findings are consistent with research showing that structural and health system factors play a critical role in enabling or limiting access to care (Farmer et al., 2010). In PsyCaB, these conditions are included to reflect the reality that behaviour is not determined by individual factors alone.

4.3 Integration of Empirical Findings into the PsyCaB Model

Taken together, the findings of Elliason (2026) and related studies demonstrate that cancer-related behaviour emerges from the interaction of multiple factors rather than from a single determinant.

Each component of the PsyCaB Model reflects the patterns observed in the empirical data.

- Awareness was present but did not consistently lead to action
- Perceived risk influenced whether individuals felt motivated to respond
- Stigma discouraged open discussion and delayed help-seeking
- Emotional responses shaped engagement in both positive and negative ways
- Social support influenced coping and sustained participation in care
- Structural conditions enabled or constrained behavior

By integrating these elements, the PsyCaB Model provides a more complete and context-sensitive explanation of cancer-related behaviour.

4.4 Contribution of Empirical Evidence to Theory Development

Elliason's (2026) empirical findings extend the existing understanding of cancer-related behaviour by demonstrating how psychosocial and structural factors interact in real-world settings. While previous models emphasised cognition and intention, the findings of this study highlight the importance of emotional, social, and contextual influences.

The PsyCaB Model builds on these insights by offering a framework that connects these dimensions into a single system. This reflects how individuals experience cancer beyond clinical settings and provides a foundation for future research to test and refine the relationships proposed in this model.

5.0 Dynamic Processes and Explanatory Logic of the PsyCaB Model

5.1 Non-Linear Nature of Cancer-Related Behavior

The PsyCaB Model views cancer-related behaviour as nonlinear and context-dependent. In real-life situations, individuals do not move in a simple sequence from awareness to action. Instead, their responses are shaped by multiple factors that interact with each other simultaneously.

For example, a person may be aware of cancer symptoms but still delay seeking care due to fear, stigma, or a low perceived risk of cancer. Another individual with similar awareness may act quickly because of strong social support or personal experience that increases their sense of risk perception. These variations show that the behaviour does not follow a single, predictable path.

This perspective moves away from models that assume a direct progression from knowledge to behaviour and recognises that different combinations of factors can lead to different outcomes in the same group.

5.2 Pathways from Awareness to Action

Within the PsyCaB Model, there is no single pathway through which awareness leads to action. Instead, multiple pathways exist, depending on how other factors interact with awareness.

In some cases, awareness may lead to an increased perceived risk, which then encourages preventive behaviours, such as screening or early consultation. In other cases, awareness may trigger fear or anxiety, motivating action or leading to avoidance.

Stigma can interrupt this pathway by discouraging individuals from acting on what they know. Simultaneously, strong social support can reinforce positive pathways by encouraging help-seeking and reducing fears.

This means that the same level of awareness can result in very different behaviours, depending on the surrounding psychological, social, and structural conditions.

5.3 Reinforcing and Inhibiting Influences

The PsyCaB Model highlights that some factors support behaviour (reinforcing influences), while others act as barriers (inhibiting influences).

- **The reinforcing influences** include the following:
    - High perceived personal risk
    - Supportive family and social networks
    - Positive healthcare experiences
    - Accessible and affordable services
- **The inhibiting influences** include:
    - Low perceived risk
    - Fear and emotional distress
    - Cancer-related stigma
    - Limited access to healthcare

These influences do not act independently. For example, strong social support can reduce fear and stigma, making it easier for individuals to seek care and treatment for mental health issues. However, stigma can increase emotional distress and reduce the willingness to act, even when there is high awareness.

Understanding this balance helps explain why behaviour may change under different conditions and why interventions must address both barriers and enabling factors in the context of physical activity.

5.4 Illustrative Pathways in Real-Life Contexts

To better understand how the model operates, it is useful to consider how these factors interact in real-world conditions.

For instance, a young adult who is aware of cancer symptoms but does not feel personally at risk may ignore early warning signs. If this individual also fears social judgment or lacks support, the likelihood of delayed help-seeking increases.

In contrast, another individual with similar awareness may act quickly if they have a family history of cancer, strong encouragement from peers or family members, and access to healthcare services. In this case, perceived risk and social support work together to promote action.

These examples show that behaviour is shaped by a combination of factors present in a person's environment rather than by any single factor.

5.5 Change Over Time and Adaptive Behavior

Cancer-related behaviours are not fixed. It changes over time as individuals gain new experiences and adjust their understanding of the disease.

For example, a person who initially avoids screening due to fear may later decide to seek care after learning more about cancer or after seeing someone close to them undergoes treatment. Similarly, positive experiences with healthcare services can increase trust and encourage future participation.

Conversely, negative experiences, such as stigma, poor treatment, or lack of support, may reinforce avoidance and reduce future willingness to seek care.

Therefore, the PsyCaB Model emphasises that behaviour is adaptive and influenced by ongoing feedback. Individuals continuously adjust their perceptions, emotions, and actions based on their experiences over time.

7.0 Methodology

7.1 Study Design

This study employed a cross-sectional research design to examine cancer awareness, risk perception, stigma, and psychosocial responses among tertiary students. A cross-sectional approach was appropriate for capturing patterns of knowledge, attitudes, and perceptions at a single point in time and identifying the relationships between key variables (Setia, 2016).

The design also allowed for the exploration of how multiple psychosocial and contextual factors interact, which informed the development of the PsyCaB Model.

7.2 Study Setting and Population

The study was conducted among tertiary-level students in Punjab, India, a population considered relevant for understanding early perceptions and attitudes toward cancer. Young adults in educational settings are an important group for cancer prevention, as their beliefs and behaviours may influence long-term health outcomes.

Participants were drawn from selected institutions using an appropriate sampling strategy to ensure representation across various academic disciplines and backgrounds (Elliason 2026).

7.3 Data Collection Procedures

Data were collected using a structured questionnaire designed to assess key variables related to cancer-related behaviour. The instrument included the following sections.

- Awareness of cancer risk factors and symptoms
- Perceived susceptibility to cancer
- Attitudes toward cancer and stigma
- Emotional responses associated with cancer
- Social support and relational influences
- Perceived access to healthcare services

The questionnaire was administered in a controlled setting, and participation was both voluntary and anonymous. Standard procedures were followed to ensure the clarity of the questions and consistency in data collection (Bryman, 2016).

7.4 Measures and Variables

This study measured several key constructs that later informed the PsyCaB Model.

- **Awareness**: Assessed through knowledge of cancer risk factors and symptoms
- **Perceived Risk**: Measured by participants' self-assessment of their likelihood of developing cancer
- **Stigma**: Evaluated through attitudes toward individuals living with cancer and concerns about social judgment
- **Emotional Response**: Captured using items related to fear, anxiety, and uncertainty about cancer
- **Social Support**: Assessed through perceived availability of support from family, peers, and healthcare providers
- **Structural Factors**: Measured through perceived access to healthcare services, affordability, and system-related barriers

These variables were selected based on their relevance in existing health behaviour research and their importance in the study context (Glanz et al., 2015; Elliason, 2026).

7.5 Data Analysis

Data were analyzed using descriptive and inferential statistical methods. Descriptive statistics were used to summarise the participants' characteristics, awareness, perceptions, and attitudes.

Inferential analyses, including correlation and regression techniques, were used to examine the relationships between variables and identify factors associated with cancer-related behaviours (Field, 2018).

The analysis focused on understanding patterns rather than establishing causality, given the cross-sectional nature of the study.

7.6 Ethical Considerations

Ethical approval for this study was obtained from the appropriate Institutional Review Board. Participation was voluntary, and informed consent was obtained from all participants prior to data collection.

Confidentiality and anonymity were maintained throughout the study. Participants were informed of their right to withdraw at any stage without consequences, in accordance with the standard ethical guidelines for research involving human subjects (World Medical Association, 2013).

7.7 Role of Methodology in Model Development

The methodology played a central role in shaping the PsyCaB Model. The selection of variables, data collection process, and analytical approach made it possible to identify patterns in the interactions of awareness, perceived risk, stigma, emotional responses, social support, and structural factors.

Rather than testing a predefined theory, this study allowed relationships to emerge from the data. Therefore, the PsyCaB Model was developed as a theory grounded in empirical observation, reflecting how individuals understand and respond to cancer in real-life contexts (Elliason 2026).

8.0 Discussion

8.1 Interpreting Cancer-Related Behavior Beyond Awareness

The findings of this study reinforce a key issue in cancer prevention and care: awareness alone does not consistently lead to action. Although participants demonstrated knowledge of cancer risk factors and symptoms, this did not translate into preventive behaviour or timely help-seeking (Elliason, 2026). This gap between knowledge and action has been widely noted in health behaviour research, where increased awareness does not always result in behavioural change (Brewer et al., 2007; Wardle et al., 2015).

The PsyCaB Model helps explain this gap by showing that awareness must be understood alongside other factors, particularly perceived risk, emotional responses, and social context. When individuals do not perceive themselves as personally at risk or when emotional and social barriers are present, awareness is unlikely to lead to action. This highlights the need to move beyond information-based interventions toward approaches that address how individuals interpret and respond to cancer-related information.

8.2 The Role of Psychosocial Factors in Shaping Behavior

A key contribution of this study is its emphasis on **psychosocial influences**, particularly stigma and emotional responses, in shaping cancer-related behaviours. The findings show that concerns about social judgment, labelling, and exclusion can discourage open discussion and delay help-seeking (Elliason et al., 2025). This aligns with existing research demonstrating that stigma remains a significant barrier throughout the cancer care continuum (Else-Quest et al., 2009; Link and Phelan, 2001).

Emotional responses play a central role in this process. Fear and anxiety influence whether individuals engage with cancer-related information or avoid it altogether (Elliason 2026). This supports theoretical perspectives suggesting that emotional processes are integral to health behaviour and not secondary to cognition (Holland et al., 1997; Holland et al., 2015).

By integrating these psychosocial dimensions, the PsyCaB Model offers a more realistic account of how individuals experience and respond to cancer, particularly in settings where social meaning and emotional burden are significant.

8.3 Social and Structural Contexts of Cancer Behavior

This study also highlights the importance of social and structural contexts in shaping behaviours. Social support has emerged as a key factor that can encourage help-seeking and improve engagement with care, particularly by reducing emotional distress and reinforcing positive choices (Thoits, 2011; Elliason et al., 2025).

Simultaneously, structural factors, such as access to healthcare services, affordability, and system navigation, influence whether individuals can act on their intentions (Elliason, 2026). These findings are consistent with broader evidence showing that structural constraints play a critical role in health outcomes, especially in low- and middle-income countries (Farmer et al., 2010).

The PsyCaB Model incorporates these contextual influences to show that cancer-related behaviour is not solely an individual decision but is shaped by the environments in which individuals live.

8.4 Positioning PsyCaB Within Existing Theoretical Frameworks

Existing models, such as the Health Belief Model and Theory of Planned Behaviour, have been widely used to explain health behaviours. While these frameworks provide useful insights into how individuals perceive risk and form intentions, they tend to emphasise cognitive processes and may not fully account for emotional, social, and structural influences (Glanz et al. 2015).

The findings of this study suggest that these additional dimensions are critical for understanding cancer-related behaviours. The PsyCaB Model builds on existing theories by integrating these factors into a single framework rather than treating them as secondary influences. This offers a more comprehensive approach that reflects the complexity of real-world behaviours.

8.5 Contribution of the PsyCaB Model

The PsyCaB Model contributes to the literature in several important ways. First, it provides an integrated framework that combines awareness, perceived risk, emotional responses, stigma, social support, and structural conditions. This integration helps address the limitations of models that focus primarily on individual cognition.

Second, the model is empirically grounded, drawing on data from real-world contexts to inform its structure and relationship. This strengthens its relevance to both research and clinical practice.

Third, PsyCaB emphasises the dynamic and context-dependent nature of behaviour, recognising that individuals respond to cancer differently depending on their experiences, environments, and available support systems.

Overall, the model offers a more complete understanding of cancer-related behaviour and provides a foundation for developing interventions that address both individual and contextual factors.

8.6 Implications for Understanding Cancer Behavior

These findings suggest that improving cancer outcomes requires more than increasing awareness. Interventions must also address how individuals perceive risk, manage their emotional responses, navigate stigma and access supportive environments.

By highlighting these interacting influences, the PsyCaB Model shifts the focus from individual responsibility to a broader understanding of behaviour shaped by multiple conditions. This perspective is particularly important in settings where social and structural barriers play significant roles in health outcomes.

9.0 Implications for Research, Practice, and Policy

9.1 Implications for Research

The PsyCaB Model provides a structured framework for future research on cancer-related behaviour by highlighting the interactions between psychological, social and structural factors. Rather than examining these elements in isolation, future studies should use this model to explore how they operate together in different populations and settings.

The propositions developed in this study offer clear and testable pathways that can be examined using quantitative, qualitative, or mixed methods. For example, researchers could investigate how perceived risk mediates the relationship between awareness and behaviour, or how social support moderates the effects of stigma and emotional distress.

In addition, the model opens opportunities for longitudinal research to better understand how cancer-related behaviours evolve. Since PsyCaB emphasises feedback and adaptation, future studies should examine how experiences with screening, diagnosis, or treatment influence subsequent attitudes and behaviours.

There is also scope to apply and validate the model in different contexts, including other age groups, cultural settings, and healthcare systems. This will help assess the generalisability of the model and refine its components where necessary.

9.2 Implications for Practice

For healthcare providers and practitioners, the PsyCaB Model highlights the need to move beyond awareness-based approaches to cancer prevention and care. While education remains important, it is insufficient to change behaviour.

Interventions should address perceived risks and help individuals understand their personal vulnerabilities meaningfully. Simultaneously, attention must be paid to emotional responses, ensuring that fear and anxiety are managed rather than ignored, as these can either motivate or prevent action.

The model also underscores the importance of addressing cancer-related stigma in clinical and community settings. Creating safe and supportive environments where individuals feel comfortable discussing cancer can improve early detection and engagement in care.

Strengthening social support systems is another key implication of this study's findings. Healthcare providers should actively involve families and communities in cancer care processes, as supportive relationships can improve coping, treatment adherence, and overall outcomes.

Finally, practitioners must be aware of the structural barriers faced by patients. Efforts to simplify access to services, improve communication, and guide patients through the healthcare system can significantly enhance patient engagement.

9.3 Implications for Policy

At the policy level, the PsyCaB Model suggests that effective cancer control strategies must go beyond information campaigns. Policies should adopt a multilevel approach that addresses the psychological, social, and structural determinants of the behaviour.

Public health programs should incorporate strategies to reduce stigma and promote open discussions about cancer treatment. Community-based interventions that engage local leaders, educators, and the media can help shift social norms and improve acceptance of FGM/C abandonment.

Policies should also focus on improving access to affordable and quality healthcare services, particularly in underserved areas. This includes expanding screening programs, reducing financial barriers, and strengthening primary healthcare systems.

Additionally, integrating psychosocial support services into cancer care is essential. Providing counselling, patient education, and support groups can help individuals manage emotional distress and remain engaged in treatment.

Overall, policy efforts should recognise that cancer-related behaviour is shaped by a combination of individual and contextual factors and therefore requires coordinated action across multiple sectors.

10.0 Limitations and Future Research

10.1 Study Limitations

This study has several limitations that should be considered when interpreting the findings and the development of the PsyCaB Model.

First, the study employed a cross-sectional design, which limits the ability to draw causal conclusions about the relationships between variables (Setia, 2016). While the findings identify important associations between

awareness, perceived risk, stigma, emotional responses, and behaviour, they do not establish the direction of these relationships over time.

Second, the study focused on tertiary students in Punjab, India, which may limit the generalisability of the findings to other populations in other countries. Young adults in academic settings may differ from older populations or individuals with direct cancer experience in terms of risk perception, emotional responses, and healthcare engagement (Elliason, 2026).

Third, the data were based on self-reported measures, which may have been influenced by recall or social desirability biases. Participants may underreport their stigmatising attitudes or overestimate their level of awareness, which can affect the accuracy of the findings (Bryman 2016).

In addition, while the study captured key psychosocial and structural variables, it may not have included all relevant factors influencing cancer-related behaviour. Cultural beliefs, health literacy levels, and prior personal or family experiences with cancer may also play important roles and warrant further investigation in future studies.

Finally, although the PsyCaB Model is grounded in empirical data, it remains a conceptual framework that has not yet been fully tested as an integrated model. However, the proposed relationships require further empirical validation.

10.2 Directions for Future Research

Future research should build on these findings to further develop and test the PsyCaB Model.

Longitudinal studies are needed to examine how cancer-related behaviours evolve over time and to better understand the causal relationships between awareness, perceived risk, emotional responses, stigma, and behaviour. Such studies would help validate the dynamic processes proposed in the model.

There is also a need to test the model in diverse populations and settings, including different age groups, cultural contexts, and healthcare systems. This will help assess the generalisability of the model and identify context-specific variations.

Future studies should employ mixed-method approaches, combining quantitative analysis with qualitative insights to better understand how individuals interpret cancer-related experiences and how these interpretations shape behaviour.

In addition, research should explore the interaction between psychosocial and structural factors in greater depth, particularly in low- and middle-income settings, where access to care and social norms may strongly influence behaviours.

Finally, the propositions outlined in this study provide a basis for empirically testing specific pathways within the PsyCaB Model. Testing these relationships will help refine the model and strengthen its applicability in research and practice.

11.0 Conclusion

This study aimed to develop a more comprehensive understanding of cancer-related behaviour by examining the roles of psychological, social, and structural factors. The findings show that awareness alone is insufficient to drive preventive action or timely help-seeking behaviour. Instead, behaviour is shaped by how individuals perceive their risk, respond emotionally to cancer, experience stigma, and interact with their social and healthcare environments.

The PsyCaB Model brings these elements together into a single framework, offering a more realistic account of how people respond to cancer in everyday life. By integrating awareness, perceived risk, emotional responses, stigma, social support, and structural conditions, the model moves beyond traditional approaches that primarily focus on individual cognition.

Grounded in empirical evidence from Eliasson (2026), this model reflects real-world patterns of how young adults understand and engage with cancer. This highlights the importance of addressing not only knowledge but also the broader conditions that influence behaviour of the target population.

Taken together, the PsyCaB Model provides a useful foundation for future research, practice, and policy. It offers a framework for designing interventions that are more responsive to the complexities of cancer-related behaviours and are better suited to improving prevention, early detection, and care outcomes.

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