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UNDERSTANDING YOUTH AWARENESS OF BEHAVIORAL COUNSELING IN HIV PREVENTION: A QUALITATIVE CASE STUDY IN SABAH, MALAYSIA

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Abstract: Behavioral counseling is an important component of HIV prevention; however, its effectiveness depends on public understanding and acceptance. This study explored youth awareness and perceptions of behavioral counseling in HIV prevention in Sabah, Malaysia. A qualitative case study design was employed involving seven participants aged 24 to 28 years from three districts in Sabah. Data were collected through semi-structured interviews, reflective diaries, and non-participant observations and analyzed thematically using the Health Belief Model and Cognitive Behavioral Therapy frameworks. The findings revealed that awareness of behavioral counseling remained limited and frequently misunderstood. Participants commonly perceived counseling as informal advice rather than a structured preventive intervention. Awareness was primarily shaped through informal social networks instead of institutional or healthcare-based sources. Low perceived susceptibility to HIV and sociocultural stigma further reduced willingness to engage with counseling services. The study highlights a disconnect between the availability of behavioral counseling and youths' understanding of its preventive role. These findings emphasize the need for culturally responsive and youth-centered HIV prevention strategies that strengthen counseling awareness, reduce stigma, and improve engagement with preventive support services.

Keywords: HIV Prevention; Behavioral Counseling; Youth; Awareness; Qualitative Study; Sabah; Malaysia; Health Belief Model; Cognitive Behavioral Therapy

INTRODUCTION

Human Immunodeficiency Virus (HIV) continues to represent a major global public health concern, particularly among youth populations who remain vulnerable to infection despite significant advancements in prevention, treatment, and healthcare interventions. Young people continue to experience disproportionate HIV-related risks due to persistent stigma, limited access to accurate sexual health information, and engagement in high-risk behaviors (UNAIDS, 2023; WHO, 2023). In many settings, psychosocial and structural challenges further influence youths' health-seeking behaviors and engagement with preventive services. In Malaysia, the epidemiological pattern of HIV has increasingly shifted toward sexual transmission, with a growing proportion of infections involving younger populations (Ministry of Health Malaysia, 2022). This trend underscores the need for HIV prevention strategies that are not only accessible but also developmentally appropriate, culturally responsive, and capable of addressing the psychosocial realities experienced by youth.

In response to the evolving HIV epidemic, behavioral and community-based interventions have become increasingly important components of comprehensive HIV prevention strategies. Nevertheless, gaps in awareness, understanding, and preventive engagement among youth populations remain evident (Abdullah et al., 2020; Wong & Sam, 2010). Existing research in Malaysia has

predominantly emphasized knowledge, attitudes, and practices (KAP) related to HIV, with comparatively limited attention given to how youth conceptualize behavioral counseling as part of preventive healthcare. Furthermore, qualitative evidence examining youths' perceptions and interpretations of behavioral counseling within Southeast Asian sociocultural contexts remains limited, particularly in high-prevalence regions such as Sabah, Malaysia. As a culturally diverse state with varying levels of healthcare accessibility, social conservatism, and HIV-related stigma, Sabah presents a unique context in which youth perceptions of counseling and preventive engagement may differ from those reported in other regions. Limited understanding of these contextual factors may reduce the effectiveness of prevention initiatives, especially when interventions are implemented without sufficient consideration of youths' lived experiences, social environments, and cultural sensitivities.

Behavioral counseling, particularly interventions informed by Cognitive Behavioral Therapy, plays an important role in HIV prevention by addressing cognitive, emotional, and behavioral factors associated with health-risk behaviors (Beck, 2011). Such approaches aim to strengthen adaptive coping strategies, improve decision-making processes, and encourage healthier behavioral patterns among at-risk individuals. However, the effectiveness of behavioral counseling depends not only on the availability of services but also on how such interventions are perceived, understood, and accepted by target populations. The Health Belief Model further proposes that preventive health behavior is influenced by factors such as perceived susceptibility and perceived barriers (Rosenstock, 1974; Becker, 1974). Individuals who perceive themselves to be at low risk of HIV infection or who associate counseling with stigma and discomfort may be less likely to engage with preventive interventions.

In sociocultural settings such as Sabah, discussions related to HIV, sexuality, and counseling may remain highly sensitive due to cultural norms, stigma, and limited openness surrounding sexual health issues. These factors may influence both awareness and willingness to access youth-friendly counseling services. Consequently, understanding how youth interpret and evaluate behavioral counseling is essential for improving the relevance and effectiveness of HIV prevention strategies within local communities. In addition, previous studies have emphasized that counseling effectiveness extends beyond technical competence to include empathy, multicultural sensitivity, attitudinal readiness, and the ability to engage appropriately with stigmatized populations (Chen et al., 2025; Tuan Abdullah & Mat Min, 2021).

Research Objective

This study aims to explore youth awareness and perceptions of behavioral counseling in HIV prevention within the context of Sabah, Malaysia. Specifically, the study examines how youth understand behavioral counseling, the sources influencing their awareness, and the factors shaping its perceived relevance. By providing context-specific qualitative insights, this study contributes to a deeper understanding of how sociocultural and cognitive factors influence youths' engagement with behavioral counseling and HIV prevention efforts. The findings may assist healthcare practitioners, counselors, educators, and policymakers in developing more culturally responsive and youth-centered HIV prevention strategies.

METHODOLOGY

This study employed a qualitative case study design to explore youth awareness and perceptions of behavioral counseling in HIV prevention. A qualitative approach was considered appropriate as it enables the exploration of participants' meanings, interpretations, and lived experiences in greater

depth, particularly in understanding socially and culturally sensitive issues that may not be adequately captured through quantitative methods (Creswell & Poth, 2018). The case study design further allowed for an in-depth examination of how youth in Sabah conceptualize behavioral counseling within their specific social and cultural contexts.

Participants were recruited through purposive sampling based on their suitability to provide relevant insights into youth perceptions of HIV prevention and behavioral counseling. A total of seven youths aged between 24 and 28 years from Kota Kinabalu, Penampang, and Sipitang participated in the study. These locations were selected to reflect variation across urban and semi-urban contexts within Sabah, thereby providing broader contextual perspectives regarding differing social environments and experiences. The inclusion of seven participants was considered appropriate because qualitative research emphasizes depth, richness, and contextual understanding rather than statistical representativeness or large sample sizes. In qualitative inquiry, sample adequacy is determined not solely by participant numbers but by the extent to which the sample can generate sufficient depth and relevance of information to address the research objectives.

The relatively focused study aim, specificity of the participant group, and use of multiple data sources through interviews, reflective diaries, and observations contributed to sufficient information power within the study. In addition, sample adequacy was evaluated through thematic saturation, whereby additional interviews no longer generated substantially new insights or conceptual categories (Guest et al., 2006; Braun & Clarke, 2021). Saturation was monitored concurrently throughout the data collection and analysis processes. After the sixth interview, no substantially new categories emerged, while the seventh interview further confirmed thematic redundancy and conceptual consistency across participants' responses. These factors collectively supported the adequacy of the sample size in generating meaningful and contextually rich qualitative findings. The unit of analysis in this study was individual youth perceptions and experiences regarding behavioral counseling in HIV prevention.

Data were collected using three methods to ensure methodological triangulation: semi-structured interviews, reflective diaries, and non-participant observations. Semi-structured interviews served as the primary data collection method and explored participants' understanding of behavioral counseling, exposure to HIV-related information, perceptions of HIV prevention strategies, and views regarding the relevance of counseling in preventive health behavior. Interviews were conducted individually and lasted approximately 45 to 60 minutes. To facilitate comfort, openness, and meaningful engagement, interviews were conducted either in English or Bahasa Malaysia according to participants' language preferences.

In addition to interviews, participants were invited to maintain reflective diaries to document their personal thoughts, experiences, and reflections related to HIV prevention and behavioral counseling in a less structured and more self-directed format. These diaries provided supplementary insights into participants' perceptions beyond the interview setting. Non-participant observations were also conducted throughout the data collection process to capture contextual information, communication patterns, behavioral responses, and social interactions relevant to participants' discussions of HIV and counseling-related issues.

Data analysis followed the six-phase thematic analysis framework proposed by Virginia Braun and Victoria Clarke (2006), which involved familiarization with the data, generation of initial codes,

searching for themes, reviewing themes, defining and naming themes, and producing the final report. All interviews were transcribed verbatim prior to analysis. Data were coded manually using an inductive approach, beginning with open coding before progressing toward the identification of broader categories and themes. The analysis was further informed by the Health Belief Model (HBM), particularly concepts relating to perceived susceptibility and perceived barriers, alongside Cognitive Behavioral Therapy (CBT) principles to better understand how cognitive perceptions shape awareness, interpretations, and behavioral intentions related to HIV prevention and counseling engagement.

Several strategies were employed to enhance the trustworthiness of the findings based on the criteria of credibility, dependability, confirmability, and transferability (Lincoln & Guba, 1985). Member checking was conducted by returning summarized interpretations to selected participants to verify the accuracy and consistency of interpretations with their intended meanings. Peer debriefing sessions were also conducted with colleagues experienced in qualitative research to review coding decisions, thematic development, and interpretive processes. In addition, an audit trail documenting methodological decisions, coding procedures, analytical reflections, and theme development was maintained throughout the research process to strengthen transparency and dependability.

Researcher reflexivity was continuously practiced acknowledging and minimize potential assumptions, biases, and subjective influences that could affect data interpretation. Given the researchers' professional background in counseling and behavioral intervention research, reflexive notes were maintained throughout both data collection and analysis to support critical self-awareness and analytical rigor.

Ethical considerations were carefully observed throughout the study. Participants were informed about the purpose of the research, voluntary participation, confidentiality, and their right to withdraw at any stage without consequences. Written informed consent was obtained prior to participation, and strict confidentiality measures were implemented to protect participants' identities and personal information. Ethical approval for this study was obtained from the Medical Research and Ethics Committee under NMRR ID-25-00103-5KZ (IIR).

RESULTS

Participants' Background

A total of seven participants were recruited for this study following the achievement of data saturation. Participants were aged between 24 and 28 years, with the majority aged 24 years (42.9%), followed by participants aged 25 years and 28 years (28.6% respectively). All participants originated from Sabah. Although participants shared similar regional backgrounds, their living environments varied, with some residing in urban settings while others were based in semi-urban or rural areas. This variation provided broader contextual perspectives regarding awareness and perceptions of behavioral counseling within different social environments.

In terms of gender distribution, the sample consisted of four females (57.1%) and three males (42.9%). Participants also represented diverse ethnic backgrounds, including Kadazan, Bajau, Murut, Dusun, and Brunei Malay, reflecting the multicultural composition of Sabah's population.

Most participants demonstrated relatively high educational attainment. Five participants (71.4%) possessed bachelor's degrees, one participant held a diploma qualification, and one participant had completed secondary-level education. At the time of the study, all participants were employed in various professional sectors, including counseling, healthcare, finance, administration, education, and management. The diversity of occupational backgrounds contributed to varying levels of exposure to health-related information and preventive practices.

Despite their educational and professional backgrounds, most participants (71.4%) reported that they had not received formal education or structured training related to HIV prevention. Only two participants (28.6%), primarily those from healthcare-related professions, indicated prior exposure to formal HIV-related education or training. Similarly, while most participants (71.4%) had heard of behavioral counseling within the context of HIV intervention strategies, several participants demonstrated only limited or superficial understanding of the concept.

Overall, the participants represented a relatively educated and professionally active group of young adults. Nevertheless, noticeable differences existed in their exposure to HIV-related education, understanding of behavioral counseling, and familiarity with HIV prevention strategies. These differences appeared to influence the ways participants interpreted and discussed behavioral counseling throughout the study.

Table 1: Demographic Profile of Participants

Participant	Age	Gender	Occupation	Education Level
P1	24	Male	Manager	Sijil Pelajaran Malaysia
P2	24	Female	Counselor	Bachelor's Degree
P3	25	Female	Finance Officer	Bachelor's Degree
P4	24	Male	Nurse	Diploma
P5	28	Female	Doctor	Bachelor's Degree
P6	25	Male	Administrative Staff	Bachelor's Degree

P7	28	Female	Teacher	Bachelor's Degree

Three major themes emerged from the analysis regarding youth awareness and perceptions of behavioral counseling in HIV prevention. These themes include: (1) limited conceptual understanding of behavioral counseling, (2) reliance on informal and indirect sources of awareness, and (3) perceived relevance shaped by risk perception and stigma.

1. Limited Conceptual Understanding of Behavioral Counseling

Participants demonstrated limited and, at times, inaccurate understanding of behavioral counseling as a structured intervention within HIV prevention. Many participants perceived counseling primarily as general advice, emotional support, or motivational conversations rather than as a specialized and evidence-based behavioral approach designed to address cognitive and behavioral risk factors.

One participant described this confusion as follows:

> *"I always thought general counseling is the same with behavioral counseling. I never knew that there are different types of counseling services."*
>
> (Participant 7, Female, 28)

Even among participants with healthcare-related exposure, uncertainty remained regarding the purpose, structure, and effectiveness of behavioral counseling within HIV prevention programs.

> *"I've heard of counseling services as a HIV preventive program but I'm not sure of its efficacy or what activities are involved."*
>
> (Participant 7, Female, 28)

Interestingly, uncertainty was also observed among participants with professional exposure to counseling-related fields, suggesting that awareness alone did not necessarily translate into a comprehensive understanding of behavioral counseling practices or their preventive functions.

These findings were further supported by participants' reflective diary entries, which consistently revealed tendencies to equate behavioral counseling with informal advice or general emotional support. Several diary reflections demonstrated uncertainty and tentative interpretations, with participants describing counseling in broad and non-specific terms while rarely referring to structured therapeutic techniques or intervention processes. This suggests that participants' understanding remained relatively superficial and lacked conceptual clarity, even during personal reflection outside the formal interview setting.

Field observations conducted during the data collection process further reinforced these patterns. Participants frequently displayed hesitation when discussing behavioral counseling, often pausing before responding, revising their statements, or relying on vague and non-technical language. In

several instances, participants appeared to formulate their responses spontaneously based on assumptions rather than established knowledge, as reflected in inconsistencies and difficulties in explaining specific elements of behavioral counseling practices.

Beyond indicating a simple lack of knowledge, these findings suggest the presence of limited cues to action as described within the Health Belief Model (HBM). Participants' inability to clearly differentiate behavioral counseling from general supportive interactions indicates that available information may not function effectively as a meaningful prompt for preventive engagement. Consequently, counseling may be perceived as optional, informal, or unrelated to behavioral health change rather than as a structured preventive intervention.

From a Cognitive Behavioral Therapy (CBT) perspective, participants' interpretations also reflect the influence of existing cognitive schemas in shaping how health interventions are understood. Prior assumptions and previous experiences appeared to influence the interpretation of new information, leading participants to assimilate behavioral counseling into familiar but inaccurate frameworks associated with advice-giving or emotional reassurance. Rather than perceiving behavioral counseling as a structured process aimed at modifying maladaptive thoughts and behaviors, participants reconstructed its meaning based on pre-existing beliefs and limited exposure. Such cognitive representations may therefore function as barriers to awareness, understanding, and future engagement with counseling interventions.

Taken together, the findings indicate that limited awareness of behavioral counseling may stem not only from insufficient exposure but also from broader cognitive and informational processes that shape how behavioral counseling is interpreted, understood, and internalized among youth populations.

2. Reliance on Informal and Indirect Sources of Awareness

Participants' awareness of behavioral counseling was primarily shaped through informal and indirect sources, including peers, family members, partners, and general social exposure, rather than through structured educational programmes or healthcare systems. Most participants reported that their understanding of counseling emerged incidentally through personal interactions and social experiences rather than through formal HIV prevention initiatives.

One participant explained that his awareness of counseling originated through a personal relationship:

> *"I only knew counseling because of my girlfriend who is studying counseling. I gained my knowledge through her."*
>
> (Participant 1, Male, 24)

Similarly, exposure to counseling concepts often occurred through informal social sharing rather than direct participation in counseling services or organized educational activities.

"Back in high school, I knew counseling through my friends who shared their experiences, but I never attended myself."

(Participant 1, Male, 24)

Even within educational and professional settings, participants described their understanding as limited and superficial. Exposure to HIV-related programmes did not necessarily result in a clear understanding of behavioral counseling as a structured intervention.

"We had HIV programs during medical school, but I'm not sure whether behavioral counseling was part of it. It felt more like motivational talks."

(Participant 4, Male, 24)

Reflective diary entries further demonstrated emerging but incomplete awareness of behavioral counseling within HIV prevention contexts.

"Behavioral counseling as part of HIV prevention is something new to me… I'm interested in knowing more about it."

(Diary Entry, Participant 3)

Field observations conducted during the interviews reinforced these findings. Participants frequently referred to personal networks and social relationships when describing how they first encountered counseling-related concepts. Only a few participants were able to identify formal educational programmes, healthcare institutions, or public health initiatives as primary sources of information. In addition, participants commonly described counseling using generalized and non-technical language, suggesting that their understanding was shaped more through social transmission than through structured learning or direct engagement with professional services.

From the perspective of the Health Belief Model (HBM), these findings suggest that cues to action are operating predominantly through informal social mechanisms rather than institutional or healthcare-based channels. Social interactions appeared to function as the primary trigger for awareness and initial interest in counseling-related services. This may indicate that existing HIV prevention initiatives are not sufficiently effective in promoting behavioral counseling as a recognizable and accessible preventive strategy among youth populations. As a result, awareness appears to develop incidentally through interpersonal relationships rather than through intentional and systematic health education efforts.

From a Cognitive Behavioral Therapy (CBT) perspective, the findings also suggest that participants' understanding of behavioral counseling was shaped through observational learning and socially mediated cognitive processes. Participants tended to construct their perceptions based on information acquired from trusted individuals rather than through direct exposure to evidence-based counseling interventions. However, because such informal sources often provide fragmented, simplified, or incomplete explanations, they may contribute to distorted or limited cognitive representations of behavioral counseling and its preventive functions.

Taken together, these findings indicate that awareness of behavioral counseling among youth is socially mediated and cognitively constructed rather than systematically developed through formal health education or institutional engagement. This raises concerns regarding the accuracy, consistency, and depth of knowledge available to young people, particularly when preventive awareness depends heavily on self-initiated information seeking and informal social networks.

3. Perceived Relevance Shaped by Risk Perception and Stigma

Participants' willingness to engage with behavioral counseling was strongly influenced by their perceived susceptibility to HIV. Counseling was commonly viewed as relevant only when individuals perceived themselves to be personally at risk. Participants who believed they were unlikely to contract HIV often expressed limited motivation to seek counseling or participate in preventive interventions.

One participant stated:

> *"If I think I'm at risk, it's better for me to attend HIV counseling. But if not, I might not attend."*
>
> (Participant 7, Female, 28)

Low perceived susceptibility contributed to disengagement from counseling services, while stigma and discomfort surrounding HIV-related discussions further restricted openness and willingness to participate. Several participants described HIV-related conversations as socially sensitive and potentially uncomfortable within peer settings.

> *"We don't really talk about it among friends because it's sensitive… it might create awkward conversations."*
>
> (Participant 5, Male, 28)

Feelings of fear, embarrassment, and shame also emerged as significant barriers to individual counseling participation.

> *"If I attend alone, I don't think I can. There's still fear and the feeling of shame."*
>
> (Participant 5, Male, 28)

Despite these concerns, some participants expressed greater comfort with group-based counseling approaches, which were perceived as less intimidating and less emotionally exposing than individual sessions.

> *"It's easier to share in a group rather than having an individual conversation with the counselor."*
>
> (Participant 7, Female, 28)

These interview findings were further supported by participants' reflective diary entries, which consistently revealed similar emotional and cognitive barriers toward counseling engagement. Several diary reflections demonstrated hesitation, avoidance, and discomfort when participants considered attending individual counseling sessions. Counseling participation was frequently associated with stigma, embarrassment, and fear of social judgment. Notably, many participants framed counseling engagement as reactive rather than preventive, indicating that they would only consider seeking counseling after perceiving direct risk or exposure to HIV-related situations. This suggests that behavioral counseling has not yet been fully internalized as a routine preventive health practice among youth populations.

Field observations during interviews further reinforced these patterns. Participants often displayed visible discomfort when discussing personal HIV risk and counseling participation. Some participants lowered their voices, paused before answering, or used indirect language when discussing sensitive topics related to HIV and counseling. In contrast, participants appeared more open and confident when discussing hypothetical group-based counseling settings. This behavioral difference suggests that social context plays an important role in shaping perceived emotional safety and willingness to engage in counseling-related discussions.

Viewed through the Health Belief Model (HBM), participants demonstrated relatively low perceived susceptibility, with counseling frequently perceived as necessary only after the recognition of personal risk. Consequently, behavioral counseling was interpreted more as a reactive intervention than as a proactive preventive strategy. At the same time, stigma, embarrassment, and anticipated social discomfort functioned as perceived barriers that reduced motivation to seek counseling despite its potential benefits.

From a Cognitive Behavioral Therapy (CBT) perspective, participants' responses reflect the influence of maladaptive cognitive processes, including anticipatory assumptions and negative automatic thoughts. Participants often appeared to anticipate social judgment, rejection, or embarrassment before engaging with counseling services, which contributed to avoidance behavior. Such cognitive patterns may reinforce emotional responses such as fear and shame, ultimately limiting willingness to seek preventive support.

The preference for group-based counseling further highlights the importance of social context in moderating emotional discomfort and perceived threat. Group settings may reduce feelings of individual exposure while simultaneously challenging negative cognitive expectations through shared experiences, normalization, and peer support.

Overall, the findings suggest that engagement with behavioral counseling is influenced not only by awareness but also by broader cognitive appraisals, emotional responses, and psychosocial processes. The interaction between perceived susceptibility, perceived barriers, stigma, and maladaptive thought patterns appears to shape how youth evaluate the relevance of counseling and determine their willingness to participate in preventive interventions.

DISCUSSION

The findings of this study highlight a considerable disconnect between the implementation of behavioral counseling within HIV prevention strategies and youths' understanding of its preventive

role and therapeutic purpose. Although participants demonstrated some exposure to HIV-related programmes, their understanding of behavioral counseling was often fragmented and conceptually unclear. Many participants interpreted counseling as general advice or emotional support rather than as a structured behavioral intervention aimed at facilitating cognitive and behavioral change. This finding is important because the effectiveness of behavioral interventions depends not only on service availability but also on the extent to which target populations recognize their relevance and intended outcomes (Carey & Johnson, 2011). The findings therefore suggest that preventive initiatives may have limited impact when awareness and conceptual understanding remain insufficient among youth populations.

In line with the Health Belief Model, perceived susceptibility appeared to influence participants' willingness to engage with counseling-related interventions. Participants who viewed themselves as unlikely to contract HIV demonstrated lower motivation to seek preventive support or counseling-related information. This observation supports earlier literature emphasizing the role of perceived risk in shaping preventive health behavior and health-seeking decisions (Rosenstock, 1974). Similarly, previous studies have shown that stigma, fear of negative social reactions, and difficulties accepting HIV-related realities may discourage engagement with counseling and preventive services (Tuan Abdullah et al., 2022). Within this context, behavioral counseling was frequently perceived as relevant only after the recognition of personal risk rather than as a proactive preventive resource. Such perceptions may contribute to delayed engagement with preventive interventions, particularly among youth who do not identify themselves as vulnerable to HIV infection.

Another notable finding concerns the limited differentiation between professional behavioral counseling and informal supportive interactions. Participants commonly described counseling using generalized and non-technical language, indicating limited understanding of its evidence-based and preventive functions. This may reflect gaps within current public health communication strategies, where HIV prevention efforts often prioritize biomedical information while providing less emphasis on psychosocial and behavioral interventions. Consequently, counseling services may be interpreted as optional or reactive forms of support instead of structured interventions designed to strengthen coping strategies, decision-making processes, and long-term behavioral change.

The findings further demonstrate that awareness of behavioral counseling is primarily developed through informal social interactions rather than institutional or healthcare-based channels. Most participants reported learning about counseling through peers, partners, or personal networks instead of through educational institutions, healthcare providers, or organized public health campaigns. This reliance on socially mediated sources of information may be particularly significant in sociocultural settings where discussions surrounding HIV, sexuality, and counseling remain sensitive topics. In the context of Sabah, sociocultural stigma and discomfort surrounding HIV-related discussions may indirectly limit opportunities for structured education and open communication regarding counseling services. As a result, youth may rely heavily on fragmented interpersonal knowledge, which can contribute to misconceptions and incomplete understanding of behavioral counseling within HIV prevention.

Consistent with previous literature, stigma emerged as a significant barrier influencing both awareness and engagement with behavioral counseling (Mahajan et al., 2008). Participants frequently associated HIV-related discussions with embarrassment, discomfort, and fear of social judgment, which appeared to reduce openness toward counseling participation and preventive help-seeking. Beyond functioning

as a social barrier, stigma also appeared to shape participants' cognitive and emotional responses toward counseling-related services. Anticipated negative evaluation and concerns regarding social labeling may contribute to avoidance behaviors, particularly within environments where HIV remains highly stigmatized. These findings indicate that interventions focusing solely on information dissemination may be insufficient if emotional barriers and sociocultural perceptions are not simultaneously addressed.

Overall, the study demonstrates that limited awareness of behavioral counseling among youth is shaped by multiple interacting factors, including low perceived susceptibility, conceptual misunderstanding, stigma, and limited institutional communication. The findings underscore the importance of developing HIV prevention strategies that extend beyond conventional awareness campaigns by incorporating culturally responsive, youth-centered, and psychologically informed approaches. Strengthening counseling literacy within schools, healthcare settings, and community-based programmes may improve youths' understanding of behavioral counseling as a preventive and supportive resource rather than as a service associated exclusively with crisis situations or high-risk populations.

Several limitations should be acknowledged in interpreting the findings of this study. First, the study involved a relatively small sample size consisting of participants from selected districts in Sabah, which may limit the transferability of the findings to broader youth populations in Malaysia or other sociocultural settings. Nevertheless, the qualitative design enabled the collection of rich, in-depth, and context-specific insights regarding youth perceptions and experiences related to behavioral counseling in HIV prevention.

Second, participants' responses may have been influenced by the sensitive nature of HIV-related discussions, potentially resulting in hesitation or socially desirable responses during interviews. Although efforts were made to establish rapport and maintain confidentiality, some participants may still have experienced discomfort when discussing personal perceptions and attitudes toward HIV and counseling services.

Future research should therefore consider involving larger and more diverse participant groups across different geographical and sociocultural contexts. Additional studies may also benefit from exploring the perspectives of healthcare providers, counselors, educators, and policymakers to provide a more comprehensive understanding of barriers and opportunities related to behavioral counseling awareness and engagement among youth populations.

CONCLUSION

This study highlights limited awareness and understanding of behavioral counseling among youth in Sabah within the context of HIV prevention. Participants commonly perceived behavioral counseling as informal advice or general emotional support rather than as a structured and evidence-based preventive intervention. Misconceptions regarding counseling, low perceived susceptibility to HIV, stigma, and reliance on informal sources of information collectively contributed to reduced engagement with behavioral counseling services.

The findings emphasize the need for more structured, culturally sensitive, and youth-centered approaches to strengthen awareness and understanding of behavioral counseling in HIV prevention efforts. Public health initiatives, educational institutions, and healthcare providers should play a more active role in promoting accurate information regarding the purpose and relevance of behavioral

counseling. In addition, interventions addressing stigma and emotional barriers are essential to improve acceptance, accessibility, and utilization of preventive counseling services among youth populations.

Overall, this study contributes context-specific qualitative insights into how youth in Sabah conceptualize behavioral counseling within HIV prevention. These findings may assist policymakers, healthcare practitioners, and counselors in designing more responsive and effective HIV prevention strategies that align with the social, cultural, and psychological realities experienced by young people.

Informed Consent Statement

Written informed consent was obtained from all participants prior to participation. Participants were informed regarding the purpose of the study, voluntary participation, confidentiality, and their right to withdraw from the study at any stage without consequences.

Conflict of Interest

The authors declare no conflict of interest.

Ethics Statement

Ethical approval for this study was obtained from the Medical Research and Ethics Committee under NMRR ID-25-00103-5KZ (IIR).

Author Contributions

Conceptualization: De Mark Jinul, Tuan Norbalkish Tuan Abdullah; Methodology: De Mark Jinul, Tuan Norbalkish Tuan Abdullah; Investigation, Formal Analysis, Data Curation, Writing – Original Draft Preparation: De Mark Jinul; Writing – Review and Editing: Tuan Norbalkish Tuan Abdullah, Anysia Steffy Marcellus, Adriana Livan Joseph, Hon Kai Yee; Supervision and Project Administration: Tuan Norbalkish Tuan Abdullah; Validation: Anysia Steffy Marcellus, Adriana Livan Joseph, Hon Kai Yee.

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Data Availability Statement

The data supporting the findings of this study are not publicly available due to confidentiality and privacy considerations involving the participants.

REFERENCES

Beck, J. S. (2011). *Cognitive Behavior Therapy: Basics and Beyond* (2nd Ed.). Guilford Press.

Becker, M. H. (1974). The Health Belief Model and Personal Health Behavior. *Health Education Monographs, 2*(4), 324–508.

Braun, V., & Clarke, V. (2021). *To Saturate or Not to Saturate? Questioning Data Saturation as A Useful Concept for Thematic Analysis and Sample-size Rationales*. Qualitative Research in Sport, Exercise And Health, 13(2), 201–216. Https://Doi.Org/10.1080/2159676x.2019.1704846

Carey, M. P., & Johnson, B. T. (2011). Behavioral Interventions to Reduce HIV Risk. *Journal Of Consulting and Clinical Psychology, 79*(4), 569–584.

Chen, C., Zhang, Y., Guo, Q., Wang, X., & Chen, S. (2025). Core Competencies for Psychological Counselors: A Scoping Review. Behavioral Sciences, 15(2), 147. Https://Doi.Org/10.3390/Bs15020147

Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry and Research Design* (4th Ed.). Sage Publications.

Fisher, J. D., & Fisher, W. A. (1992). Changing Aids-risk Behavior. *Psychological Bulletin, 111*(3), 455–474.

Guest, G., Bunce, A., & Johnson, L. (2006). *How Many Interviews Are Enough? An Experiment with Data Saturation and Variability*. Field Methods, 18(1), 59–82. Https://Doi.Org/10.1177/1525822x05279903

Hossain, M., Mat Min, R., Muhammad, Z., Et Al. (2020). *Effectiveness Of Mobile Sms Based Counselling Intervention in Improving The Knowledge, Attitude, And Practices Of HIV/AIDS Patients Enrolled In Hospitals/NGOs In Terengganu, Malaysia: A Mixed Mode Study Protocol*. *BMC Public Health, 20*, 787. Https://Doi.Org/10.1186/S12889-020-08910-3

Joint United Nations Programme On HIV/AIDS (UNAIDS). (2023). *Global HIV & AIDS Statistics — Fact Sheet*. Https://Www.Unaids.Org

Mahajan, A. P., Et Al. (2008). Stigma in The HIV/AIDS Epidemic. *Aids, 22*(suppl 2), S67–s79.

Ministry Of Health Malaysia. (2022). *Global AIDS Monitoring: Malaysia Country Progress Report*.

Muzamli, N. A. F. M., Norzaidi, N. A., Jamri, M. H., Ridzuan, A. R., Ismail, N., Djuyandi, Y., & Khairuddin, K. (2025). *HIV And AIDS–related Stigma Among Young Adults in Malaysia: A Quantitative Study*. *E-journal of Media and Society, 9*(1). Https://Doi.Org/10.24191/Ejoms.V9i1.10216

Rosenstock, I. M. (1974). Historical Origins of The Health Belief Model. *Health Education Monographs, 2*(4), 328–335.

Tuan Abdullah, T. N., Mat Min, R., Abdullah, S. S., & Hossain, M. (2022). *Counselling Experiences Among Men Having Sex with Men and Living with HIV in Malaysia*. PLOS *One, 17*(9), E0274251. Https://Doi.Org/10.1371/Journal.Pone.0274251

Tuan Abdullah, T. N., & Mat Min, R. (2021). Engaging With People Living with HIV: Challenges Experienced by Malaysian Counsellors. Aids Care, 33(6), 795–800. Https://Doi.Org/10.1080/09540121.2020.1757024

Wong, L. P., Chin, C. K. L., Low, W. Y., & Jaafar, N. (2008). *HIV/AIDS-related Knowledge Among Malaysian Young Adults: Findings From A Nationwide Survey*. *Medscape Journal of Medicine, 10*(6), 148. Https://Doi.Org/10.1186/1758-2652-10-6-148

Wong, L. P., & Sam, I. C. (2010). HIV/AIDS-related Knowledge Among Malaysian Young Adults. *Journal Of The International Aids Society, 13*(1), Article 16. Https://Doi.Org/10.1186/1758-2652-13-16

World Health Organization. HIV Prevention, Testing, Treatment, Care and Support (2023). *HIV Prevention, Testing, Treatment, Care and Support*. World Health Organization.