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ABSTRACT

The influences of various information sources on undergraduate students' knowledge of drug abuse encompass a broad spectrum of factors including familial dynamics, peer interactions, media exposure, education and community programme, and healthcare interventions. Understanding these influences is critical as they collectively shape the perceptions and awareness of drug abuse among students. Despite the diversity of these sources, empirical studies specifically exploring their impacts on undergraduate students' understanding of drug abuse are limited. This study aims to fill this gap by examining how different information sources contribute to undergraduate students' knowledge of drug abuse. Through qualitative methods involving semi-structured interviews with a sample of ten participants, thematic analysis was employed to elucidate the findings. The research reveals a notable preference among students to rely on Internet sources for information on drug abuse due to their accessibility and anonymity. However, the study underscores the importance of integrating diverse information sources comprehensively to provide a more nuanced understanding of drug abuse beyond what internet-based platforms offer. This approach is essential for equipping undergraduate students with the knowledge and insights necessary to make informed decisions and contribute to effective drug abuse prevention strategies.

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ABSTRACT

The influences of various information sources on undergraduate students' knowledge of drug abuse encompass a broad spectrum of factors including familial dynamics, peer interactions, media exposure, education and community programme, and healthcare interventions. Understanding these influences is critical as they collectively shape the perceptions and awareness of drug abuse among students. Despite the diversity of these sources, empirical studies specifically exploring their impacts on undergraduate students' understanding of drug abuse are limited. This study aims to fill this gap by examining how different information sources contribute to undergraduate students' knowledge of drug abuse. Through qualitative methods involving semi-structured interviews with a sample of ten participants, thematic analysis was employed to elucidate the findings. The research reveals a notable preference among students to rely on Internet sources for information on drug abuse due to their accessibility and anonymity. However, the study underscores the importance of integrating diverse information sources comprehensively to provide a more nuanced understanding of drug abuse beyond what internet-based platforms offer. This approach is essential for equipping undergraduate students with the knowledge and insights necessary to make informed decisions and contribute to effective drug abuse prevention strategies.

Keywords: drug abuse; Information, knowledge, sources, undergraduate, students.

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I. INTRODUCTION

Drug abuse represents a pervasive challenge in contemporary society, affecting diverse demographics across all geographical and socioeconomic divides. It transcends boundaries, manifesting in both rural and urban areas, impacting individuals irrespective of economic status. Men and women of all ages are susceptible, but its prevalence is particularly pronounced among young boys and girls, notably in primary, secondary education, and higher learning institutions (Kamaruddin, et al., 2010; 2014). Being an undergraduate student is a transformative time filled with opportunities for academic and personal growth. It involves balancing coursework, extracurricular activities, and personal life through effective time management while actively participating in classes and utilizing campus resources like libraries and tutoring centres. However, the transition to college life often brings increased stress from demanding coursework and the pressure to succeed, which can lead some students to turn to substances as a way to cope (Mayer et al., 2016; Mofatteh, 2020). Additionally, mental health struggles, including anxiety and depression, can make students more vulnerable to self-medicating with drugs (Klein et al., 2022; Panchal, 2024). Socially, the desire to fit in and peer pressure can drive students to experiment with drugs, especially in environments where substance use is normalized, such as parties or social gatherings (Andrews & Hops, 2010; Hostetler et al., 2012; Pandina et al., 2010; Strickland & Smith, 2014). Moreover, limited awareness and education about the risks of drug abuse, coupled with the relative ease of access to substances both on and off campus, further exacerbate these challenges. These issues

underscore the critical need for comprehensive support systems and effective education programme to equip students with the knowledge and resources to make informed decisions and seek help when necessary.

II. DRUG EDUCATION KNOWLEDGE

Drug education knowledge involves understanding the types, effects, risks, and prevention of drug use, as well as treatment and harm reduction strategies, and relevant laws. It aims to help individuals make informed decisions, prevent drug abuse, and seek help when needed, promoting overall public health and safety. Drug education knowledge is crucial for undergraduate students as it empowers them with the necessary information to make informed decisions about substance use. By understanding the physiological, psychological, and social impacts of drugs, students can recognize the risks associated with substance abuse and addiction (Clemente-Suárez, et al., 2022; Nawi, et al., 2021). Comprehensive drug education covers topics such as the effects of different substances on the body and mind, risk factors for addiction, strategies for prevention and harm reduction, and avenues for seeking help. This knowledge not only enhances students' ability to protect their health but also equips them to support peers and contribute positively to their campus community. Drug education not only imparts knowledge about the types, effects, risks, and prevention of drug use but also fosters critical thinking skills. This enables students to critically evaluate media messages and societal norms surrounding substance use. By understanding how drugs are portrayed in the media and recognizing societal pressures, students can make more informed decisions. They learn to question and analyse the often-glamorized depiction of drug use, distinguish between fact and misinformation, and understand the real-life consequences. This critical evaluation helps them resist peer pressure and make healthier choices, contributing to their overall well-being and resilience against drug abuse.

The studies by Kamaruddin et al. (2010; 2014) and Khalith et al. (2017) underscore significant

knowledge gaps among undergraduate students concerning substance abuse. Kamaruddin et al. highlight that many undergraduates lack sufficient understanding of drug abuse, attributing this to inadequate secondary school education on the risks and consequences of drug use. They also note students' limited awareness of reliable drug information sources, compounded by social influences like peer pressure and normalized drug use in social settings. Khalith et al.'s study reinforces these findings, revealing that a majority of college students possess inadequate knowledge about substance abuse, contrasting sharply with a minority who demonstrate adequate awareness. Meanwhile, Nneka et al. (2022) and Yin et al. (2022) provide critical insights into college students' knowledge, perceptions, and behaviours regarding drug abuse and rational drug use. Nneka et al. indicate that while students generally possess a moderate level of knowledge about drug abuse, there remains a significant disconnect in understanding its severity and societal implications, potentially hindering effective prevention efforts. Yin et al., on the other hand, underscore substantial deficiencies in understanding and practices related to drug use among college students, emphasizing the necessity for improved education and awareness initiatives tailored to enhance both knowledge and behaviour. Om Hashem Mohammed et al. (2021) further highlight significant disparities in knowledge and attitudes toward drug abuse between secondary and technical school students. Their findings suggest ongoing challenges as students transition to university, influencing their behaviours and decision-making regarding drug use. Implementing early targeted education interventions could be pivotal in preparing students for university life and encouraging healthier choices. These insights underscore the urgent need for targeted education initiatives at higher learning institutions, bolstered by accessible, credible information sources, to enhance students' awareness of drug abuse risks and promote effective prevention strategies.

Undergraduate students seeking information on drug abuse can access a variety of credible sources

to enhance their knowledge and understanding (Larimer, Cronce, 2002). University health services and counselling centres often provide education materials, workshops, and seminars on substance abuse prevention and treatment. Academic libraries offer access to research articles, books, and databases that cover the latest studies and findings on drug abuse. Online resources from reputable organizations, such as the National Anti-Drugs Agency (NADA), the National Poison Centre Malaysia, the Ministry of Health, Malaysia, the National Institute on Drug Abuse (NIDA), and the Substance Abuse and Mental Health Services Administration (SAMHSA), provide comprehensive information, statistics, and guidance on drug-related issues. Additionally, students can consult peer-reviewed journals, attend guest lectures by experts in the field, and participate in campus awareness programmes and support groups. These diverse sources equip students with the necessary knowledge to understand the complexities of drug abuse and its impact on individuals and communities. Furthermore, drug education fosters a supportive campus environment by encouraging students to look out for one another and seek help if needed. It also equips students with the ability to critically evaluate and resist misinformation about drugs, enabling them to contribute positively to broader public health efforts.

Understanding the influences of information sources on undergraduate knowledge of drug abuse is crucial because it allows for targeted interventions and education strategies that can effectively shape attitudes and behaviours early on (Das, et al., 2016). Undergraduate students are particularly vulnerable to misinformation and peer pressure regarding drug use (Loke & Mak, 2013). Therefore, it is essential to identify which sources, such as family discussions (Daley, 2013), peer interactions (Keyzers et al., 2020), media (Romer & Moreno, 2017), education programmes (Bonyani et al., 2018), community programme (Malick, 2018), and healthcare providers (Mauro et al., 2020), have the most significant impact on their understanding of this issue. Additionally, research on "Information Sources on Knowledge

of Drug Abuse" may be disregarded due to perceptions that its findings are predictable or trivial. This perception has led to a scarcity of empirical literature reviews that could offer substantial insights and evidence in this field. Consequently, there remains a limited scholarly exploration and documentation regarding how different sources of information shape individuals' understanding of drug abuse. Bridging this gap is critical for developing evidence-based interventions and policies aimed at effectively combating drug abuse. This research aims to explore how undergraduate students acquire knowledge about drug abuse by examining influential sources such as family discussions, peer interactions, media, education programmes, community initiatives, and healthcare providers. Each of these sources significantly influences adolescents' perceptions and attitudes towards substance use. Family discussions foster foundational understanding in a trusted environment, while peer interactions introduce social norms and potential pressures. Media shapes perceptions through various portrayals and messages, which can either glamorize or caution against drug use. Education programme offer structured information and prevention strategies, and community initiatives along with healthcare providers provide broader support networks and interventions. Understanding the impact of these diverse sources is crucial for developing targeted and effective education initiatives and interventions aimed at reducing the risks associated with adolescent drug abuse, thereby promoting informed decision-making and healthier outcomes.

III. METHODOLOGY

This study uses a qualitative approach to examine the influences of information sources on knowledge of drug abuse, collecting data through in-depth interviews (Dworkin, 2012) with 10 undergraduate students selected using purposive sampling (Palinkas, et al., 2015; Vasileiou, et al., 2018). Purposive sampling is chosen for studies like this one to ensure that the selected participants possess characteristics or experiences that are relevant to the research objectives. In-depth interviews were conducted to gather

comprehensive qualitative data for the study. These interviews employed structured guides to ensure consistency while allowing flexibility to explore participants' perspectives on drug use and information sources. This method facilitated a deep understanding of participants' attitudes, knowledge, and behaviours related to drug use, providing rich qualitative insights for analysis and interpretation in the research. Selecting undergraduate students for a study on knowledge of drug abuse is justified due to their critical developmental stage, vulnerability, high prevalence of substance use, significant peer influence, and the potential for substantial education and long-term impacts (Kamaruddin et al., 2010; 2014). The study focused on six domains which are family discussions, peer interactions, media, education programme, community programme, and healthcare providers to explore how undergraduate students perceive and understand drug use. Each of these sources potentially influences undergraduate students' awareness and attitudes toward drug abuse, contributing to their overall understanding of the issue. The study aimed to explore how undergraduate students acquire information about drug use from various sources such as family discussions, peer interactions, media,

education programmes, community initiatives, and healthcare providers. This exploration is crucial for developing effective strategies and interventions aimed at promoting accurate knowledge, awareness, and healthy behaviours among undergraduate students about drug use. The data will be analysed thematically (Braun, & Clarke, 2006) to identify common patterns, themes, and unique insights, contributing to a deeper understanding of the factors that influence adolescents' knowledge about drug abuse and informing the development of more effective education and preventive strategies (Fusch, & Ness, 2015).

IV. RESULT

4.1 Informant Demographic

Ten students were chosen as participants for this study, as outlined in Table 1. The selection criteria for informants included demographic factors such as age, gender, and education background, as well as descriptive information pertinent to their roles in the research. This detailed profile of each informant is crucial for ensuring a comprehensive understanding of their perspectives and experiences related to the study's focus on drug abuse.

Table 1: Informant Demographic

| | Informant | | | | | | | | | |
|----------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | A | B | C | D | E | F | G | H | I | J |
| Age | 23 | 22 | 22 | 21 | 23 | 21 | 22 | 22 | 21 | 22 |
| Gender | M | M | M | M | M | F | F | F | F | F |
| Race | MY | MY | SE | C | In | MY | MY | SE | C | In |
| Semester | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| SES | B40 | B40 | B40 | B40 | B40 | B40 | B40 | B40 | B40 | B40 |
| Religion | Ms | Ms | C | B | H | Ms | Ms | C | B | H |

Remark: M = Male; F = Female; MY = Malay; SE = Sabah ethnic; C = Chinese; In = Indian; Ms = Muslim; C = Christian; B = Buddhists; H = Hindus; B40 = monthly income below RM 4,850

The demographic characteristics of the informants in this study could potentially influence its outcomes and findings significantly. Factors such as age, gender, and education background among the informants may shape

their perspectives, attitudes, and experiences regarding drug use and the sources they rely on for information. The study focuses on a cohort of university students with an average age of 21.9 years. The group is evenly divided between

genders, comprising 5 males and 5 females, all currently in their second semester of study. Identified as part of Malaysia's B40 income group, their households earn below RM 4,850 monthly, placing them within the lower 40% of the income distribution. The cohort demonstrates religious diversity, including 4 Muslims, 2 Christians, 2 Buddhists, and 2 Hindus, which reflects Malaysia's multicultural fabric and underscores the country's diverse cultural landscape. This diversity enhances the study's breadth by encompassing varied perspectives and experiences related to drug use among Malaysian undergraduates, thereby enriching the insights gained from the research.

4.2 Interview Analysis

The interview analysis focused on five critical domains: family discussion, peer interaction, media, education programme, community programme, and healthcare providers. It highlighted challenges within families regarding drug-related communication and support, with peer groups exerting significant influence, either positively or negatively, on substance use

behaviours. Additionally, the media played a crucial role in shaping perceptions of drug use, and community programme varied in accessibility and effectiveness as resources for drug education and support. Despite healthcare providers being recognized as essential, they were underutilized in addressing adolescent substance abuse. Overall, the analysis underscored the diverse influences across these domains on adolescent attitudes and behaviours toward drug use, as illustrated below.

4.3 Families Discussion

The influence of families in shaping HLS attitudes towards drug abuse is profound, providing foundational values and support systems that can either encourage open discussions about substance use or impart values that discourage experimentation. Family dynamics, including parental involvement and communication styles, play a crucial role in shaping informants' perceptions and behaviours related to drug abuse. However, findings from this study highlight significant barriers that prevent informants from obtaining drug-related information from their families as shown in Figure 1.

| Parents' Reluctance | Lack of Understanding | Fear of Judgment or Criticism | Communication Barriers | Cultural or Religious Beliefs |
|--|--|---|--|---|
| noted parents' reluctance to discuss drugs openly. | a perceived lack of understanding from parents about contemporary drug issues. | mentioned fear of judgment or criticism from parents. | experienced ineffective communication styles or strained relationships within the family | noted that cultural or religious beliefs may stigmatize drug use or discourage discussions. |
| Informants A, C, E, F, and G | Informants D, E, F, I, and J | Informants C, D, I, and J | Informants C, D, E, and H | Informants B, D, G, H, and I |

Figure 1: Seeking Information Knowledge on Drug Abuse from Families Discussion

Parents' reluctance to discuss drugs openly was noted by informants A, C, E, F, and G. Additionally, informants expressed a perceived lack of understanding from their parents

regarding contemporary drug issues (Informants D, E, F, I, J), which hindered meaningful discussions. Fear of judgment or criticism from parents was another barrier reported by Informants C, D, I, and J, contributing to their reluctance to initiate conversations about drugs. Communication barriers within the family, such as ineffective communication styles or strained relationships, were also cited (Informants C, D, E, H), making it difficult for informants to discuss sensitive topics like drug abuse openly. Furthermore, cultural or religious beliefs within families (Informants B, D, G, H, I) may stigmatize drug use or discourage discussions about these issues, further limiting the effectiveness of familial support in addressing drug abuse prevention among students. These insights underscore the multifaceted challenges within family dynamics that impact students' access to accurate information and support related to drug abuse, highlighting the need for improved

communication and supportive environments within families to address this critical issue effectively.

4.4 Peer Interaction

Peer interaction plays a significant role in educating each other about drug abuse through various channels and interactions. Within peer groups, there exists a unique dynamic where adolescents share experiences, knowledge, and warnings about drug use. This exchange occurs in informal settings, such as conversations among friends, where individuals feel more comfortable discussing sensitive topics openly. Peers can provide firsthand accounts of the consequences of drug abuse, which can resonate more deeply than information from other sources. Additionally, peer education on drug abuse fosters a supportive environment where adolescents can learn from each other's mistakes and successes as shown in Figure 2.

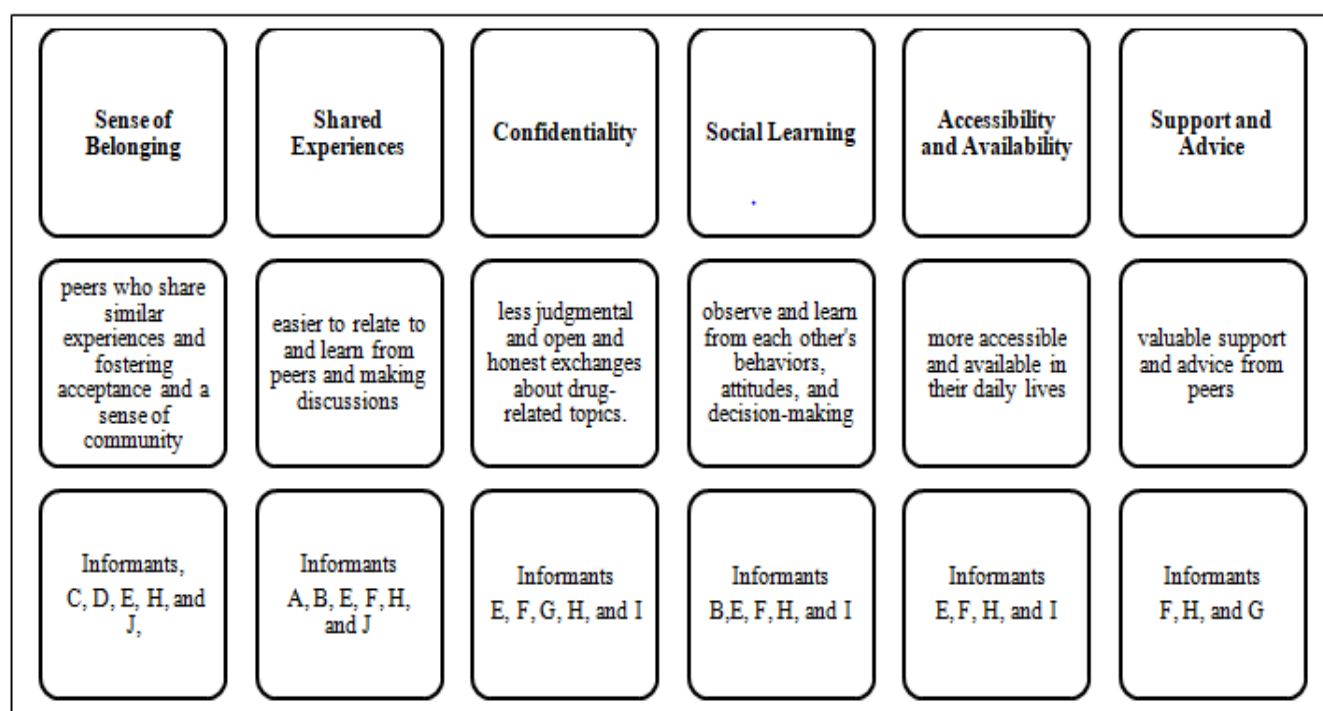


Figure 2: Seeking Information Knowledge on Drug Abuse from Peer

The analysis emphasizes that informants prefer seeking information from peers due to several compelling reasons. Firstly, there exists a strong sense of belonging among informants (C, D, E, H,

J), as adolescents seek connections with peers who share similar experiences and viewpoints on drug-related issues, fostering acceptance and community within their social circles. Shared

experiences also play a crucial role (A, B, E, F, H, J), enabling adolescents to relate to and learn from peers with firsthand knowledge or experiences with drugs, thereby making discussions more pertinent and informative. Additionally, confidentiality (E, F, G, H, I) is paramount, as informants perceive peer interactions as private and less judgmental compared to conversations with adults, thereby encouraging open and honest exchanges about drug-related concerns. Social learning dynamics (B, E, F, H, I) are prevalent among peers, where adolescents observe and adopt behaviours, attitudes, and decision-making processes related to drug use from their peers. Peers are also highly accessible and available (E, F, H, I) in adolescents' daily lives, facilitating continuous discussions and information exchange in relaxed, informal settings. Lastly, peers provide valuable support and advice (F, H, G) regarding drug use and its consequences, offering practical guidance and emotional reassurance based on personal experiences, which significantly influences adolescent decision-making and behaviours

concerning drugs. These factors collectively underscore the pivotal role of peer interactions in shaping adolescent attitudes, behaviours, and knowledge regarding drug-related issues, particularly in environments where communication with parents may be limited or challenging.

4.5 Media

The media, encompassing internet platforms, social media, television, books, newspapers, and radio, serves as a critical tool for educating informants about drug abuse. It disseminates information through various formats, from visual documentaries on television to interactive discussions on social media. Books provide detailed insights, newspapers deliver current news, and radio offers timely updates. Overall, the media plays a pivotal role in raising awareness, shaping perceptions, and influencing behaviours regarding drug-related issues. The analysis of this study reveals that informants lean towards obtaining information from various media sources as shown in Figure 3.

| Online Resources | Podcasts | Books | Newspapers | Television | Radio |
|---|---|---|---|--|---------------------------------------|
| utilize websites, forums, and social media for a wide range of information on drug use. | for educational content on substance use, addiction, treatment options, and personal stories. | prefer books for comprehensive and structured information on drug-related topics. | rely on newspapers for current events and insights into drug issues | provides engaging content and expert perspectives on drug abuse. | preference for auditory media sources |
| Informants D, F, G, H, and I | Informants A, B, C, E, G, and I | Informants B, E, F, H, and J | Informants A, H, and J | Informants D and F | Informant D, |

Figure 3: Seeking Information Knowledge on Drug Abuse from Media

According to the analysis, informants predominantly favour internet platforms as their primary source of information on drug-related topics. Online resources such as websites, forums,

and social media (Informants D, F, G, H, I) provide a comprehensive range of information, covering aspects from the effects of drug use to prevention strategies. These platforms facilitate active engagement through discussions, articles, videos, podcasts, and mobile apps dedicated to health education, including sections on drug abuse prevention, symptoms, treatments, and support resources (Informants A, B, D, G, H, I). Podcasts focusing on drug abuse (Informants A, B, C, E, G, I) are particularly valued for their education content, offering insights into substance use, addiction, treatment options, and personal narratives from experts and individuals with lived experiences. In contrast, there exists a diversity of media preferences among individuals seeking information about drug abuse. Some informants (B, E, F, H, J) prefer books for their comprehensive and structured insights, while others (A, H, J) rely on newspapers for detailed reporting and credibility regarding current drug-related events. Visual media such as television influences certain informants (D, F) by providing engaging content and expert perspectives on drug abuse, whereas radio remains pertinent for Informant D, offering timely updates and discussions that contribute to their understanding of drug-related issues. These

findings underscore the significance of media diversity in catering to varied preferences and informational needs among individuals seeking to enhance awareness and knowledge concerning drug abuse within academic contexts.

4.6 Education Programme

Education programmes focused on drug abuse serve a critical role in equipping adolescents and individuals with the essential knowledge and skills necessary to make informed decisions and prevent substance misuse. These initiatives are designed to raise awareness about the risks associated with drug use, educate on addiction and its consequences, promote healthy behaviours, and empower participants to resist peer pressure. Effective drug abuse education integrates evidence-based content tailored to diverse age groups and cultural contexts, utilizing interactive teaching methods such as discussions, role-playing, and multimedia presentations to enhance engagement and learning outcomes. By fostering open dialogue and creating supportive environments, these programmes encourage participants to seek help when needed and contribute to community-wide efforts in prevention and intervention.

| | | | | | | |
|--|--|--|--------------------------------------|--|--|--|
| Accessibility Challenges | Unengaging Delivery Methods | Lack of Relevance | Outdated Content: | Interaction Barriers | Criticism of Presenter Skills | Inconsistent Messaging |
| issues such as location, timing, and financial | highlight lectures and uninspiring presentations | express concerns that program content. | concerned about educational programs | limited opportunities for active engagement. | ineffective communication or presentation styles | inconsistent messaging within programs |
| Informants D, G, H, J | Informants A, B, C, D, G, H, I | Informants A, C, D, I | Informants E, G, H, J | Informants C, D, H, J | Informants A, B, D, E, G, H, I | Informants B, E, G, H |

Figure 4: Seeking Information Knowledge on Drug Abusefrom Educational Programs

Despite the acknowledged importance of such a programme, findings from the analysis reveal significant barriers hindering informants' engagement. Accessibility challenges, noted by Informants (D, G, H, J), such as issues related to location, timing, and financial constraints, impede their participation. Furthermore, Informants (A, B, C, D, G, H, I) express dissatisfaction with unengaging delivery methods, such as lectures or uninspiring presentations, which fail to effectively capture their interest. Informants (A, C, D, I) also highlight the lack of relevance in program content, suggesting that it often does not address their specific concerns or current issues in drug abuse. Concerns about outdated content not keeping pace with new trends or developments in drug use are voiced by Informants (E, G, H, J). Interaction barriers, identified by Informants (C, D, H, J), underscore limited opportunities for active engagement or sharing experiences during sessions. Criticisms of presenter skills, raised by Informants (A, B, D, E, G, H, I), contribute to disengagement, citing ineffective communication or presentation styles. Lastly, Informants (B, E, G, H) mention inconsistent messaging within the programme, leading to confusion or mixed signals regarding drug abuse prevention and awareness. Addressing these challenges is imperative to enhance the efficacy of education programmes on drug abuse. Ensuring programmes are accessible, engaging, culturally relevant, and delivered with

effective communication strategies is crucial to meeting participants' informational and motivational needs. By overcoming these barriers, education initiatives can effectively empower individuals to make informed choices and contribute to comprehensive community efforts aimed at combating drug misuse.

4.7 Community Programme

Community programmes focused on drug abuse knowledge play a pivotal role in raising awareness, preventing substance misuse, and supporting individuals affected by addiction within local neighbourhoods. Community programme aim to educate the community about the risks associated with drug use, provide resources for prevention and treatment, promote healthy lifestyles, and foster supportive environments. They often include workshops, support groups, outreach campaigns, and education seminars tailored to different age groups and cultural backgrounds. By engaging community members actively, these programmes empower individuals to make informed decisions, seek help when needed, and contribute to reducing drug abuse within their communities. This analysis highlights that not all informants were able to participate in community programme focused on drug abuse as shown in Figure 5.

| Location and Timing | Peer Pressure and Stigma | Limited Opportunities for Engagement | Stress and Time Management | Limited Awareness |
|---|--|---|---|-----------------------------------|
| Community programs are not conveniently | Social stigma or peer judgment deter students from participating in these programs | Programs that lack opportunities for active participation | High levels of stress and the need to manage their time | unaware of the available programs |
| Informants A, C, D, G, H, and I | Informants A, B, D, F, G, H, and I | Informants C, D, F, G, H, and J | Informants C, E, F, I, and J | Informants D, G, H, I, and J |

Figure 5: Seeking Information Knowledge on Drug Abuse from Community Programs

Informants often find it challenging to participate in drug abuse education programmes for several reasons. Firstly, location and timing: Many communities programme are not conveniently located or scheduled at times that fit the busy schedules of undergraduate students, who are often occupied with classes, part-time jobs, and extracurricular activities, leaving little free time (Informants A, C, D, G, H, and I). Secondly, peer pressure and stigma: Concerns about social stigma or peer judgment deter informants from participating in these programmes. The fear of being perceived as having a problem with drugs or being overly concerned about the issue may discourage attendance (Informants A, B, D, F, G, H, and I). Thirdly, limited opportunities for engagement: A programme lacking opportunities for active participation, such as discussions or interactive activities, may fail to engage informants who thrive on interactive and engaging formats (Informants C, D, F, G, H, and J). Fourthly, stress and time management: High levels of stress and the need to manage their time effectively can lead students to avoid additional activities that are not perceived as essential (Informants C, E, F, I, and J). Lastly, limited awareness: Many informants are unaware of the available programme due to inadequate

promotion or communication within the university community (Informants D, G, H, I, and J). These insights underscore the multifaceted challenges that need to be addressed to enhance the accessibility, relevance, and effectiveness of community-based drug abuse prevention efforts.

4.8 Healthcare Providers

Healthcare providers, encompassing doctors, counsellors, nurses, and social workers, are essential in addressing drug abuse. Doctors manage medical aspects, while counsellors offer psychological support. Nurses and social workers coordinate care and connect patients with resources, providing comprehensive support for prevention, treatment, and recovery. They play a crucial role in early detection through screenings and interventions, offering personalized advice on safe medication practices, and facilitating access to support services for individuals affected by substance misuse. This collaborative approach ensures holistic care and effective management of drug abuse issues. The analysis reveals several reasons why informants may not receive adequate information from healthcare providers regarding drug abuse as shown in Figure 6.

| Self-Reliance | Concerns about Stigma and Privacy | Perceived Stigma | Lack of Trust | Fear of Legal Consequences | Negative Past Experiences |
|--|--|---|-----------------------------------|---|--|
| gather information independently from online | fear judgment or breaches of confidentiality | perception among students that healthcare providers may stigmatize, | students lack trust in healthcare | Concerns about potential legal implications | Previous negative interactions with healthcare providers |
| Informants B, D, E, F, H, I, J | Informants A, D, E, F, G, H | Informants C, D, E, F, G, H, J | Informants A, D, F, G, H, I | Informants A, D, H, J, I | Informants A, C, G |

Figure 6: Seeking Information Knowledge on Drug Abuse from Healthcare Provider

Some informants prefer to gather information independently from online resources or other sources, feeling self-reliant in their search (informants B, D, E, F, H, I, J). Concerns about stigma and privacy also play a significant role, as students fear judgment or breaches of confidentiality if they discuss drug-related issues (informants A, D, E, F, G, H). Informants may perceive stigma from healthcare providers if they disclose drug use, impacting their willingness to seek information (informants C, D, E, F, G, H, J). Additionally, a lack of trust in healthcare providers or the healthcare system prompts some students to look elsewhere for information (informants A, D, F, G, H, I). Fear of legal consequences related to drug use is another deterrent for students seeking guidance from healthcare providers (informants A, D, H, J, I). Negative past experiences, such as feeling dismissed or unheard by healthcare providers, also contribute to students' reluctance to seek information about drug abuse from them (informants A, C, G). These findings underscore the multifaceted reasons behind students' preferences for seeking information from sources other than healthcare providers.

V. DISCUSSION

The reluctance of parents to engage in open discussions about drug abuse is influenced by several significant factors with profound implications. Drug use is frequently stigmatized across various cultures, which instills fear in parents of potential judgment or harm to their family's reputation, thereby discouraging open dialogue about the risks and consequences associated with substance use (Low et al., 1996). Furthermore, parents may feel ill-prepared or uncomfortable addressing such sensitive topics due to a perceived lack of knowledge, further hindering constructive conversations. Concerns also exist regarding the inadvertent normalization of drug use among adolescents through discussions, compounding parental apprehensions (Chie et al., 2015). Moreover, apprehensions surrounding children's safety and well-being, coupled with cultural and generational disparities in experiences with drugs, contribute to this reluctance. In cultures such as Malaysia,

norms promoting family harmony may discourage open discussions about drugs, while adolescents, adhering to societal privacy norms and respecting authority figures, may avoid initiating such conversations. Addressing these multifaceted challenges is essential for fostering open dialogue and enhancing parental involvement in preventing substance abuse among adolescents, with an emphasis on cultivating trust, empathy, and openness in parent-child relationships.

Informants frequently turn to their peers for information about drug abuse, often due to limited communication with their families. This preference arises from a desire for firsthand experiences and practical insights perceived as relatable and less stigmatized compared to information from formal sources or authority figures (Albert et al., 2013; de Water et al., 2016; Gardner & Steinberg, 2005). Peers are regarded as credible sources due to their direct involvement or proximity to drug-related issues, providing insights into the real-life implications and consequences of substance use (Maxwell, 2002). Seeking information from peers also fosters solidarity and understanding within peer groups, facilitating open and candid discussions about drug abuse. While this approach allows informants to gather insights grounded in personal experiences, an exclusive reliance on peer information may lead to misinformation or biased perspectives, potentially normalizing risky behaviours and increasing peer pressure. Moreover, limited communication with family members about drug abuse can weaken familial support networks, thereby impacting informants' access to holistic care and guidance.

In addition to peer interaction, influence informants seeking information on drug abuse frequently underutilize traditional media such as books, newspapers, television, and radio. These sources, despite their potential to provide valuable information, are often overlooked for several reasons (Jamri, et al., 2022). Books and newspapers, as traditional sources, may not consistently offer the most current or detailed updates on drug abuse trends and initiatives. Printed publications typically adhere to editorial schedules involving substantial lead times from

writing to publication, which can result in outdated information by the time it reaches readers. Furthermore, the depth and breadth of coverage on drug abuse topics in these media can vary significantly. While some books and newspapers may provide comprehensive insights, others may focus on broader societal issues or lack the specificity required to address evolving trends in substance use and treatment. Meanwhile, television and radio, relying on scheduled programming, often struggle to accommodate the flexible schedules and immediate access preferences of informants interested in drug abuse information. Unlike digital platforms offering on-demand content, traditional broadcast media follow fixed schedules that may not align with their audience's availability or preferences, posing challenges to timely access to relevant information. Additionally, the inability to access information instantly contrasts sharply with the convenience and accessibility offered by digital media. Therefore, while television and radio remain influential mediums, their adherence to scheduled broadcasts may limit their effectiveness in meeting the dynamic information needs of informants interested in drug abuse issues.

The coverage of drug abuse topics in traditional media often falls short of meeting the specific interests and needs of informants, prompting them to favour alternative sources or platforms. Media such as newspapers, television, and radio typically offer generalized or sporadic coverage of drug abuse, lacking the in-depth exploration of emerging trends, local initiatives, or comprehensive analysis sought by informants. These mediums prioritize broader audience appeal over detailed discussions on substance abuse, resulting in limited depth of information. Consequently, informants seeking nuanced insights or specific information may turn to alternative sources like specialized publications, online forums, or peer discussions that provide more targeted perspectives on drug abuse topics. This preference for alternative sources underscores informants' quest for comprehensive and relevant information beyond what traditional media typically provides on drug abuse issues.

Education and community programmes aimed at addressing drug abuse are designed to enhance awareness of its risks, impart skills to resist peer pressure, and foster supportive community environments (Chie et al., 2015). Despite these objectives, these initiatives often encounter challenges in effectively engaging participants. Informants face considerable time constraints due to rigorous academic commitments, part-time employment, and active social lives, which can deter their involvement in such programmes. Furthermore, when the content of these programmes does not closely align with participants' immediate interests or fails to address their specific needs, they may perceive the information as irrelevant or lacking in practical application. Ineffective promotion and outdated delivery methods further contribute to low participation rates. Additionally, there exists a stigma associated with attending a drug education programme, as participants may fear social judgment or be labelled by their peers. These barriers collectively underscore the need for programmes that are not only accessible and well-advertised but also highly relevant to the target audience to effectively foster engagement and promote proactive approaches to addressing drug abuse issues.

Moreover, informants may be reluctant to seek information on drug abuse from healthcare providers such as doctors, counsellors, nurses, and social workers due to various factors (Cernasev, et al., 2022). One primary concern is the stigma attached to discussing substance abuse openly with healthcare professionals, often portraying substance use as a moral failing rather than a medical issue. This societal perception can deter individuals from seeking necessary help or guidance. Confidentiality concerns also loom large, with individuals apprehensive that shared information could be disclosed without consent, potentially leading to breaches of privacy or other unintended consequences like legal ramifications or social stigma. Furthermore, the fear of being stigmatized or labelled as having a substance abuse problem may discourage individuals from seeking early intervention or openly discussing their concerns, perpetuating feelings of isolation.

and reluctance to engage with healthcare providers who could offer crucial support and assistance. Additionally, individuals may not fully recognize the confidential and non-judgmental support services available from healthcare providers, viewing these professionals primarily through the lens of physical health rather than recognizing their expertise in mental health or substance abuse issues. Consequently, individuals may turn to perceived more specialized sources such as peer groups or online forums for information, seeking immediate access without the perceived formality or potential barriers associated with healthcare settings.

The accessibility and effectiveness of information sources on drug abuse, which include family discussions, peer influence, traditional media (such as books, newspapers, television, and radio), education and community programme, and healthcare providers, often fail to fully meet the needs of informants. Social stigma and concerns about family reputation hinder open discussions within families, prompting informants to turn to peers for information they perceive as more relatable. Traditional media channels typically do not provide comprehensive coverage of local drug abuse trends, while education and community programme may struggle to engage informants due to mismatched content or lack of awareness. Consequently, informants frequently seek out alternative sources like online forums, underscoring the necessity for more relevant and accessible approaches to disseminating information about drug abuse.

The internet serves as a versatile platform enabling individuals to access a diverse array of information swiftly and conveniently, circumventing the social pressures and stigmas frequently linked with discussing sensitive topics face-to-face. Unlike traditional modes of communication, online resources offer anonymity, granting users a sense of freedom to explore drug abuse-related content without fear of personal scrutiny or societal judgment. This anonymity fosters a more open and candid exploration of information, allowing individuals to delve deeper into their queries while shielding them from potential consequences associated with

disclosing personal concerns in public forums. Moreover, the internet's accessibility ensures that individuals can seek out resources, insights, and support from various sources globally, empowering them with comprehensive knowledge and enabling informed decision-making regarding drug abuse. Using the internet to acquire knowledge about drug abuse can have significant negative impacts. Firstly, the vast amount of information available online varies widely in accuracy and credibility, leading to potential misinformation and confusion among users seeking reliable guidance. This can perpetuate myths or outdated beliefs about substances and their effects. Moreover, the anonymity of online platforms can facilitate the spread of harmful ideologies or encourage risky behaviours, especially in forums or social media groups where drug use might be normalized or glamorized. Privacy concerns also arise, as individuals may unwittingly disclose personal information that compromises their confidentiality or exposes them to exploitation. Additionally, continuous exposure to drug-related content online can trigger or exacerbate mental health issues, including anxiety or depression, particularly for vulnerable individuals. The internet's accessibility and immediacy can also undermine the importance of seeking professional advice, deterring individuals from consulting healthcare providers who can offer tailored support and evidence-based interventions. Overall, while the internet provides unprecedented access to information, its unregulated nature and potential for misinformation pose substantial risks for those seeking accurate knowledge about drug abuse. Despite the myriads of sources available for obtaining information on drug abuse knowledge, the role of families remains paramount. Research indicates that informants often communicate less with their families about this critical issue. Nonetheless, families serve as fundamental units in educating informants about drug abuse knowledge. They provide a foundational environment where attitudes, beliefs, and behaviours towards substance use are shaped and discussed. Effective family communication fosters understanding, trust, and support, creating an atmosphere where informants feel safe to seek

guidance and share concerns about drug abuse. By engaging in open discussions, families can impart essential information about the risks, consequences, and prevention of substance abuse, complementing formal education and community interventions. Moreover, familial involvement instills values and norms that influence decision-making processes related to drug use, reinforcing responsible behaviours and reducing the likelihood of substance abuse among informants. In addition to parents providing foundational knowledge about drug abuse, undergraduate students must engage in courses dedicated to drug abuse education. Substance misuse is prevalent among young adults, especially within education settings, making it essential for students to acquire a comprehensive understanding and skills to address this issue effectively. These courses not only equip students with the knowledge to identify signs of drug abuse and understand its societal impacts but also empower them to advocate for and implement preventive measures. By integrating drug abuse education into undergraduate curricula, universities fulfill a critical role in fostering a safe and supportive environment conducive to healthy decision-making and well-being among their student populations.

Summary

The influence of various information sources on adolescent knowledge of drug abuse involves a complex interplay among familial, peer, media, education & community programme, and healthcare factors. Despite potential communication barriers, families are pivotal as primary educators of drug abuse for adolescents. Peer interactions provide relatable insights but may inadvertently normalize risky behaviours. Traditional media sources like books, newspapers, television, and radio often offer generalized or outdated information, failing to meet adolescents' specific and evolving informational needs regarding drug abuse. Education and community programmes aim to raise awareness and impart skills but encounter challenges in engaging adolescents due to perceived relevance and stigma. Healthcare providers offer crucial support but face barriers related to stigma and

confidentiality concerns. Overall, while adolescents prefer internet sources for their convenience and anonymity, a comprehensive approach integrating diverse information sources is essential to effectively enhance adolescent knowledge and understanding of drug abuse issues.

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