

Analysis of Health Belief Model in Adolescent Groups of Drug Users

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ARTICLE INFO

Article history

Received 11/1/23

Revised 11/1/23

Accepted 11/27/23

Keywords

Drug Users

Health Belief Model

Adolescents

Self-treatment

ABSTRACT

Background: The use of drugs (narcotics, psychotropics, and addictive substances) among adolescents in urban areas is increasing and is a concern for the benefit of public health, especially in an effort to maintain a healthy generation. This study aims to identify the health belief model in adolescent groups of drug users. **Methods:** This qualitative study employed a phenomenological design. The research focused on an unassisted drug user in Yogyakarta, who was not under the care of the National Narcotics Agency (NNA). Data was gathered through a Focus Group Discussion (FGD) involving six informants. Triangulation of information sources included the NNA and Drug Non-Governmental Organizations (NGOs). Data analysis was conducted using content analysis. **Result:** This study reveals that adolescents who use drugs tend to rely on self-treatment when seeking health services. They base their approach on assessing the symptoms and manageable effects of opium drugs, either individually or in groups. Their initial step involves consuming specific foods or beverages believed to counteract the drug's effects. This practice is influenced by advice from peers and information obtained from the Internet. Additionally, their reluctance to utilize healthcare facilities is reinforced by a fear of legal consequences. **Conclusion:** The health belief model in adolescent drug user groups in Yogyakarta is self-treatment. Thus, collaborative socialization and education efforts are needed between stakeholders (NNA, NGOs, Healthcare Facilities, and Schools). They should focus on enhancing awareness about the available health service programs for drug users, their types, and how to access them.

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Introduction

Indonesia is considered one of the countries facing a drug emergency, with involvement in the Golden Triangle, encompassing Myanmar-Thailand-Laos, and the Golden Crescent, which includes Iran-Pakistan-Afghanistan [1]. This illicit trade has increasingly targeted adolescents. According to the National Narcotics Agency (NNA), the prevalence of drug abuse in 2021 was 3.83%, equivalent to 3,376,115 people aged 15-24 years. The majority of drug users were males (74.5%), while females constituted 25.5% of users [2]. Yogyakarta faces a significant problem with drug abuse, ranking first in drug users in Indonesia, most users in Yogyakarta are students. In 2017, there were 371 drug-related cases, increasing to 448 cases in 2018 [2]. Factors leading adolescents to use drugs include environmental influences, family dynamics, and peer pressure. Often, it starts with smoking and alcohol consumption and may be triggered by curiosity, experimentation, or coping with stress, broken homes, or a lack of parental attention [3].

The health consequences of drug use are diverse, affecting both physical and psychological well-being. Physical health issues include neurological, cardiovascular, dermatological, and pulmonary problems, along with headaches, nausea, vomiting, elevated body temperature, liver damage, and insomnia [4]. There are also adverse effects on reproductive health, such as disruptions in reproductive hormones. Injecting drug users face the risk of hepatitis B, C, and HIV transmission [5]. Psychologically, drug use can lead to slow thinking, anxiety, lack of self-confidence, apathy, paranoia, aggression, and self-harm tendencies.

According to Indonesian law, drug addicts and victims of drug abuse must undergo medical and social rehabilitation [6]. However, many addicts are unaware of these regulations, and they fear legal consequences, which discourages them from seeking treatment. Rehabilitation services encompass both medical and social rehabilitation, aimed at freeing individuals from drug dependency and reintegrating them into society [7]. In general, adolescents who use drugs may experience various health problems, and their health-belief model may involve seeking treatment independently, either through conventional or online means or by consulting with peers instead of healthcare professionals [8]. This study aims to determine patterns of seeking health services among groups of adolescent drug users.

Materials and Method

This qualitative research employed a phenomenological approach to delve into the depth and complexity of the experiences of different drug (Narcotics, Psychotropics, and Addictive Substances) users. The research took place in Yogyakarta. The six informants were selected using purposive sampling based on specific criteria: not under the supervision of the NNA, adolescent age, residing in Yogyakarta, proficient in Indonesian, and willing to participate in the study.

Data collection was carried out through Focus Group Discussions (FGD) using a set of guidelines for interviews. FGD is a qualitative data collection technique involving simultaneous interviews with a group of people at a single location, discussing a specific topic. Content analysis was employed as the data analysis method, which involves systematically identifying and interpreting specific message characteristics. To enhance data validity, triangulation was utilized, specifically triangulation of sources. This involved incorporating data from the National Narcotics Agency (NNA) and Non-Governmental Organizations (NGOs) specializing in narcotics to compare and ensure information reliability. This study was approved by the health research ethics committee with ethical clearance No. 248/EA/KEPK-FKM/2021.

Results and Discussion

Results

Characteristics of Informant

Based on Table 1, it was found that all informants were male with an age range of 17-18 years and were high school students. Informants come from rural (50%) and urban (50%). All informants smoked, and there were 4 alcoholics-drug users (67%).

Table 1. Characteristics of Informants

Informant	Sex	Age (years)	Education	House	History		
					Smoking	Alcoholic	Drug
Informant 1	Male	18	High School	Urban	Yes	Yes	Yes
Informant 2	Male	18	High School	Urban	Yes	Yes	No
Informant 3	Male	18	High School	Rural	Yes	Yes	Yes
Informant 4	Male	17	High School	Rural	Yes	Yes	Yes
Informant 5	Male	17	High School	Rural	Yes	Yes	Yes
Informant 6	Male	17	High School	Urban	Yes	Yes	No

Predisposing

Based on the interviews, Informant said the reason they used drugs was to follow his father who was a former drug user, break up, introduced by school friends. The informant also said that he started using it after trial and error and was given free by acquaintances.

"Just trying, stress, and follow the father (who used to be a user)." (Informant 1)

"From schoolmates" (Informants 3&5)

"Breakup stress" (Informant 4)

Enabling

Based on the interviews, informants had difficulty accessing illegal drugs because their distribution was not easy. They must use special techniques in transacting with drug providers. Informants often meet with drug dealers without prior planning and buy drugs outside. They were cautious in interacting with drug dealers as the government intensified surveillance. In addition, the informant had a bookie's phone number to communicate online. Once an agreement is reached, the drugs will be delivered to the informant's home or met at a specific location. Informants pointed out that access to drugs was not limited to one bookmaker, and they often switched from one bookie to another depending on the price and availability of drugs.

"I also have the number (drug dealer), so that if needed, I immediately contact via online.... After the deal, the dealer drove me to my house or met somewhere." (Informant 1)

"If dealers always change depending on the sales price, of course, I choose the cheaper one. Sometimes, change dealers if he doesn't want to serve" (Informant 3)

The informants said they experienced a variety of side effects due to drug use, including weight loss, nausea, vomiting, dizziness, dehydration, and drowsiness. Some even said that overuse can cause hallucinations. Informants usually seek information and support on their own through the internet or from fellow users to overcome the side effects. They read articles about the dangers of drugs, dosages, and types of drugs to understand how to reduce side effects. Although health services are available in hospitals and community health centers, informants do not feel the need to seek help from health workers because they feel that the side effects, they experience are not too severe.

".... Cepat sleepy, thirsty quickly due to dry throat." (Informants 1,2,3,4, & 6)

"If you use too much, you can hallucinate." (Informant 5)

"Yes, from reading articles and saying friends who are more experienced. Likewise, the drug that I put in one of the packaged drinks (soft or not) can reduce the dose of the drug. I learned about this from the article" (Informant 4)

Reinforcing

Research shows that most informants' families do not know that they are drug users. Meanwhile, the informant, known to his family, was given a strong reprimand but there was no follow-up afterward, including monitoring the informant's association or motivating the informant for rehabilitation. The informant chose to use drugs outside the home.

".... Father just scolded me. Because I have never used drugs at home again, he just knows that I don't use drugs anymore. So, he never asked me to go to such places (rehabilitation) " (Informant 1)

The informant has an environment that greatly influences them to engage in such illegal activities. Schoolmates, hangouts, and friends at the informant's house were fellow users, at least the level of smokers. After school, informants often spend time at users' hangouts and usually come home late at night. The informant also identified a more experienced friend, who provided

information about rehabilitation, drug effects, how to eliminate drug effects, drug types, and drug dealers.

"Yes, from reading the article and saying a friend who is more experienced" (Informant 3)

In addition, another close friend asked him for rehabilitation, but he refused because he had no real physical changes (severe symptoms).

"My girlfriend asked me to stop and get rehabilitated, but I didn't want to because I felt like I was still well." (Informant 5)

The informant mentioned that the school often held socialization about the dangers of drugs, but did not explain in detail about rehabilitation. The informants also followed the activity obediently.

"It's about the dangers of drugs, that's it, miss" (Informant 2)

"If we run away, we will be suspected, so we just come and listen" (Informant 5)

This is supported by NNA's statement that the current activity is socialization (counseling) which is more focused on schools, especially high schools.

"There are several activities that we carry out, such as socialization (counseling) and we focus on schools, especially high schools, considering that adolescents are still relatively high in drug use, both trial and error, single-use, and addict categories" (Triangulant 1)

The informants stated that the school had regulations that punished drug users with expulsion from school, after previously undergoing counseling by guidance counseling teachers. The informant also did not say the school would direct users to rehabilitation sites. In addition, school rules are not balanced with strict supervision. Proven by informants who can freely use drugs at school. Apart from the frequency, schools are also a safe destination for taking drugs.

"If we are caught by the school, we will be punished immediately." (Informant 1)

"(We will be) expelled, miss. But usually given a lecture first by guidance counseling teachers." (Informant 4)

The informant said that fellow drug users advised them to consume penetrative milk (one of the brands) to overcome the side effects of drug use and reduce drug levels in the urine. An informant also noted that urine test results that are always negative by schools may be affected by the drinks they consume, such as penetrating milk. However, this information is not in line with the NNA's statement, which states that penetrating milk has no significant effect in removing drugs from urine.

"I was told that the levels of drugs in the urine would disappear within a few months, but could disappear faster by drinking the milk. Probably about 7 days" (Informant 4)

"I've had many urine tests, but the results are always negative. I think it's because of the milk I drink." (Informant 3)

"There are certain drugs that have a chemical structure similar to drugs and it is metabolism that can neutralize them. And everyone has a different metabolic system. Indeed, to make sure a person uses drugs or not, tests are needed, one of which is a urine test. This urine test is indeed a simple test and its validity is lacking." (Triangulant 2)

In addition to penetrating milk, informants also heard from fellow users that adding salt to urine can result in negative urine test results. However, this is different from the NNA's statement which

states that urine tests are strictly guarded and have Standard Operating Procedures (SOPs) for sampling that prevent manipulation.

"The urine test has an SOP, so it will not be possible for the person who wants to be tested to add anything, including salt. This SOP is used to avoid these things, including avoiding urine exchange." (Triangulant 1)

Some informants responded positively to rehabilitation because of sports activities such as swimming, to overcome drug dependence. They also say that rehabilitation can help them recover. This information is in accordance with statements from NGOs and NNA, which explain that rehabilitation includes various activities aimed at helping users recover from dependence.

"According to the story of a friend (who had been rehabilitated), he said he was told to exercise to be healthy, swim, and others." (Informant 6)

".... there is a regular scheduling for activities that will be carried out every day during the rehabilitation period, such as worship, and Sunday sports such as swimming, badminton, and so on. Usually, the rehabilitation lasts for one year, if those who intend to recover, the rehab period will be faster. In addition, there are also activities such as farming, raising fish, and many more so that rehab is not stuck there." (Triangulant 3)

However, there are informants who give a negative response to rehabilitation, considering it like a prison and a place to be punished, such as being whipped or chained. This is not in accordance with NNA's statement which states that each rehabilitation has its method tailored to individual needs, and there are no physical actions that hurt.

"But if, for example, the rehabilitated are having a relapse, they say they will be whipped, locked up, and chained." (Informant 2)

"The people who were rehabilitated were arrested, miss. Continue to be punished but replaced by rehabilitation. So, it's actually a prison." (Informant 4)

"There is one method where users are warmed and then recited prayers. That includes one of the rehabilitation of the religious approach." (Triangulant 3)

Some informants also knew about fines for drug users, which ranged from based on the type and weight of drugs found. So, there is a fear of being punished, if they ask for rehabilitation. This is not in accordance with NNA's statement that self-reported users (volunteers) will not be punished under drug laws.

"Yes, you know, the law for drug users is based on the type and per gram of drugs found. Various. It can be up to a fine of IDR 2,000,000." (Informant 6)

"So, according to the law, there are two opportunities to report, so the law is not processed (reported drug users are not punished)" (Triangulant 1)

Discussion

The spread of drugs in Indonesia is increasingly massive. Factors influencing drug users can be categorized into internal factors such as personality, gender, and religion, as well as external factors like the surrounding environment, including family and friends [9]. According to Lawrence Green there are three determinants of behavior for a person, and these factors are predisposing factors, enabling factors, and reinforcing factors [10]. Predisposing factors are factors that facilitate or predispose a person to the occurrence of behavior. These factors include knowledge, perception, and age [11]. Enabling factors include the skills and resources necessary to perform health behaviors. Includes cost, distance, and availability of transportation [12]. Supporting factors can influence healthcare-seeking behavior for drug workers so that they can support healthcare-seeking behavior. Reinforcing factors are reinforcing factors. These factors include the attitude and behavior factors of

officers including health workers and behavior of community leaders related to health. Reinforcing factors are consequences of actions that determine whether the perpetrator gets positive or negative feedback and is socially supported after the feedback occurs. Reinforcing factors thus include social support, peer influence, and advice and feedback by health providers [13]. These determinants also can be factors in adolescent's health belief model [14].

In this study, it was identified that all informants were male, which is one of the internal factors of drug abuse. Other studies say that men have a higher risk of drug abuse compared to women [15, 16, 17]. This can be explained by biological, social, and psychological differences. Higher levels of the hormone testosterone in biological males can contribute to risky behavior. Social factors, such as peer pressure and stimulating social environment, also influence men's perceptions of drugs. Psychologically, men, especially adolescents, tend to be more prone to impulsivity and risky behavior, influencing their decision to try or engage in drug abuse [18].

In this study, it was identified that informants used drugs because of trial and error. This is influenced by risk factors related to the environment, such as social friends, schoolmates, nuclear family, and breakups. This is in line with other studies, where association, especially friends who smoke and alcohol consumption have a significant impact on a person's tendency to abuse drugs [9, 19]. This is supported by all informants who are active smokers and alcohol consumers [Table 1]. In addition, another factor is family conditions that are not good, such as parents who are too busy so they lack attention and affection for children. Teens who don't get enough attention and support from their families will feel inferior or unappreciated. This can make them look for ways to overcome these negative feelings, one of which is drug abuse [9]. Another factor is the breakup experience. Breakups are a difficult emotional experience, and teens tend to be stressed and frustrated. To cope with these negative emotions, then, some teens seek escape from drugs believing that drugs can help them forget their sadness or reduce their emotional pain [20, 21, 22].

Based on the interviews, informants admitted that they experienced side effects due to drug use, including weight loss, nausea, vomiting, dizziness, excessive thirst, and drowsiness. Therefore, they seek treatment on the internet independently or consult with experienced friends (fellow drug users) to overcome these side effects. The informants did not seek professional health services because they never had serious side effects. The way individuals perceive and engage with the concepts of health, illness, and healthcare-seeking behavior is influenced by their knowledge, lifestyles, and demographic circumstances. Therefore, possessing knowledge of medicine alone is insufficient to guarantee improved healthcare-seeking behavior. Our study's findings align with this perspective. Healthcare-seeking behavior is a multifaceted issue since the definition of what constitutes health or illness varies across different cultures, life experiences, socio-economic factors, and legal considerations. Furthermore, healthcare-seeking behavior is highly individualized, as it involves interactions with other individuals. These obstacles encompass concerns related to stigma, confidentiality, uncertainty about how to seek help, apprehension about unwanted interventions when seeking mental healthcare, and barriers such as financial constraints, time limitations, and concerns about potential side effects when seeking physical healthcare [23]. Informants' "self-treatment," such as consuming certain beverages, can be risky because information found on the internet is not always accurate or reliable.

In addition, informants do not get directions about what they should do after falling into drug abuse. Families who knew the informant was a drug user, did not take any action including monitoring the informant's association and motivating the informant for rehabilitation. Thus, the informant argued that what was done was not a big problem for himself and his family so there was no reason for him to rehabilitate and stop using drugs [24, 25].

Another cause is the informant's negative view of the rehabilitation process, among them is the perception that rehabilitation is prison-like, related to legal problems, and provides unpleasant services. This information is partly obtained from the experiences of friends who have undergone rehabilitation. However, some informants gave a positive opinion, that rehabilitation activities such as sports, religious activities, and other efforts to avoid drug dependence. Rehabilitation services in Indonesia are located in community health centers, hospitals, and foundations managed by NNA, where each rehabilitation program has a method tailored to individual needs. Rehabilitation is always

monitored to ensure there is no excessive physical treatment [26]. Some informants were also afraid to enroll in rehabilitation for fear of arrest, conviction, or imprisonment. The researcher is also aware of fines as punishment for drug users. Meanwhile, based on the regulation, individuals who register voluntarily for rehabilitation at the Reporting Institution will not be punished [1].

Anti-drug training in schools has been routinely held in the form of socialization about the dangers of drugs, which is well followed by informants. Although this socialization includes information about the dangers of drugs, it does not provide a detailed view of the rehabilitation process. Schools also implement regulations that sanction expulsion from school for drug users, but strict supervision efforts in schools are lacking. This is reinforced by the fact that informants use drugs in schools, suggesting that schools can be relatively safe places for them.

Making regulations on healthy behavior must also be accompanied by coaching to raise awareness in the community because the imposition of sanctions on perpetrators is only short-term. Coaching can be started in the family, school, and community environment [27, 28, 29]. The informant is a student, so the role of the school is also very important because children can spend a minimum of 8-9 hours a day at school. Therefore, school monitoring and supervision is also important.

Based on these findings, peers have a strong influence in reinforcing drug use behavior and shaping adolescent behavior patterns in seeking health care. Teens may feel that they are fine and do not need medical or rehabilitation services because of suggestions from their peers and have proven themselves. Despite efforts at rule-making and socialization about the dangers of drugs in schools, rehabilitation-related details are underemphasized. Therefore, it is important to consider that the role of friends and the social environment in supporting healthy behaviors is significant [30]. In addition, drug awareness coaching and education must be strengthened in families, schools, and communities to address the challenges of drug abuse in adolescents [31]. Stricter measures are also needed in supervising and maintaining the safety of the school environment so that it does not become a place for drug abuse. In addition, inaccurate suggestions and information obtained from friends must be balanced with a more scientific and evidence-based approach to direct adolescents to appropriate health and rehabilitation services.

Conclusion

This study concludes that the health-seeking behavior of drug users, especially among adolescents, predominantly involves self-treatment because the symptoms are not severe enough to prompt serious consequences from drug use. There is a need for comprehensive drug education in schools to increase students' awareness deter them from using drugs and combat drug abuse. Both government and NNA stakeholders should consider collaborating with the media to provide balanced and accurate information about narcotics. In particular, healthcare professionals have a significant opportunity to actively engage in providing information and education to the public about drugs.

Declaration

Acknowledgments: No acknowledgments

Conflicts of Interest: The authors declare no conflict of interest

References

1. Hapsari PD, Putri AS, Kerstan H. Legal Policy for Drug Users in Indonesia and the Netherlands. *J Creat Student*. 2022;7(1):35–66. doi: <https://doi.org/10.15294/jcs.v7i1.3620>
2. Badan Narkotika Nasional. Indonesia Drugs Report. Vol. 5, *Pusat Penelitian, Data, dan Informasi Badan Narkotika Nasional Republik Indonesia*. 2021. p. 40–51.
3. Jazuli A, Haryono, Nugroho TWA, Firdaus I, Lukito I. Does Broken-Home Family Contribute to Drugs Abuse in Correctional the Most? *Proc 1st Int Conf Law Hum Rights 2020* (ICLHR 2020). 2021;549(Iclhr 2020):91–7. doi: <https://doi.org/10.2991/assehr.k.210506.014>
4. Newcomb MD, Locke T. Health, Social, and Psychological Consequences of Drug Use and Abuse. *Epidemiol Drug Abus*. 2020;45–59. doi: https://doi.org/10.1007/O-387-24416-6_4
5. Aghaei AM, Gholami J, Sangchooli A, Rostam-Abadi Y, Olamazadeh S, Ardeshir M, et al. Prevalence of injecting drug use and HIV, hepatitis B, and hepatitis C in people who inject drugs in the Eastern Mediterranean region: a systematic review and meta-analysis. *Lancet Glob Heal* [Internet]. 2023;11(8):e1225–37. doi: [http://dx.doi.org/10.1016/S2214-109X\(23\)00267-X](http://dx.doi.org/10.1016/S2214-109X(23)00267-X)
6. Saefudin Y, Hartiwingsih, Isharyanto. Rehabilitation policy for drugs abuse in Indonesia. *Indian J Forensic Med Toxicol*. 2020;14(4):4111–5. doi: <https://doi.org/10.37506/ijfmt.v14i4.12285>

7. Hendra R, Narcotics N, Metro A. Harmonization of Rehabilitation Service Standards for Drug Abuse's Addicts and Victims according to the Regulations. *Ius Poenale*. 2021;2(2):87–102. doi: <https://doi.org/10.25041/ip.v2i2.2216>
8. WHO, UNODC. International Standards for the Treatment of Drug Use Disorders. 2020. 121–228 p. doi: ISBN 978-92-4-000219-7
9. Nawi AM, Ismail R, Ibrahim F, Hassan MR, Manaf MRA, Amit N, Ibrahim N, Shafurdin NS. Risk and protective factors of drug abuse among adolescents: a systematic review. *BMC Public Health*. 2021 Nov 13;21(1):2088. doi: [10.1186/s12889-021-11906-2](https://doi.org/10.1186/s12889-021-11906-2). PMID: 34774013; PMCID: PMC8590764.
10. Yolanda K, B SK, Hapsari A. Literature Review: Predisposing, Enabling and Reinforcing Factors that Influence Community Open Defecation Behavior in Indonesia [Internet]. *Proceedings of the International Conference on Sports Science and Health (ICSSH)* (2022). Atlantis Press International BV; 2022. 88–120 p. doi: http://dx.doi.org/10.2991/978-94-6463-072-5_11
11. Björnsson ES. Epidemiology, Predisposing Factors, and Outcomes of Drug-Induced Liver Injury. *Clin Liver Dis* [Internet]. 2020;24(1):1–10. doi: <https://doi.org/10.1016/j.cld.2019.08.002>
12. Garofoli M. Adolescent Substance Abuse. *Prim Care Clin Off Pract* [Internet]. 2023;47(2):383–94. doi: <https://doi.org/10.1016/j.pop.2020.02.013>
13. Guay MA, Cawi RD. Implementation of War on Drugs Program in One of the Municipalities of Ifugao Province. *Humaniora*. 2021;12(3):191–200. doi: <https://doi.org/10.21512/humaniora.v12i3.7116>
14. Younis NM. Efficacy of Health Beliefs Model-Based Intervention in Changing Substance Use Beliefs among Mosul University Students: A Randomized Controlled Trial. *Rev Bionatura*. 2022;7(2). doi: <https://doi.org/10.21931/rb/2022.07.02.35>
15. Harris MT, Laks J, Stahl N, Bagley SM, Saia K, Wechsberg WM. Gender Dynamics in Substance Use and Treatment: A Women's Focused Approach. *Med Clin N Am*. 2022;106:219–34. doi: https://doi.org/10.1007/978-3-031-16459-0_18
16. Kacha-ochana A, Jones CM, Green JL, Dunphy C. Characteristics of Adults Aged ≥ 18 Years Evaluated for Substance Use and Treatment Planning — United States , 2019. 2022;71(23). doi: <https://doi.org/10.15585/mmwr.mm7123a1>
17. Fonseca F, Robles-martinez M, Tirado-muñoz J, Alias-ferri M. A Gender Perspective of Addictive Disorders. *Curr Addict Rep*. 2021;8:89–99. doi: <https://doi.org/10.1007/s40429-021-00357-9>
18. O'Rourke S, Whalley H, Janes S, MacSweeney N, Skrenes A, Crowson S, et al. The development of cognitive and emotional maturity in adolescents and its relevance in judicial contexts. *Scottish Sentencing Counc*. 2020. doi: <https://www.scottishsentencingcouncil.org.uk/media/2044/20200219-ssc-cognitive-maturity-literature-review.pdf>
19. Trucco EM. A Review of Psychosocial Factors Linked to Adolescent Substance Use. *Pharmacol Biochem Behav*. 2020;1–35. doi: <https://doi.org/10.1016/j.pbb.2020.172969>
20. Navaneetham P, Kanth B. Effects of Personal Relationships on Physical and Mental Health among Young Adults- A Scoping Review Abstract : *Open Psychol J*. 2022;15:1–22. doi: <https://doi.org/10.2174/18743501-v15-e2208180>
21. Honghao J, Po Y, Tianyu Y. The influence of adolescents' romantic relationship on individual development : Evidence from China. *Int J Chinese Educ*. 2021;10(5). doi: <https://doi.org/10.1177/22125868211070036>
22. Guedes S, Real V, Correia E, Real V, Monteiro AP, Douro A, et al. Cyber dating abuse : Sex , substance use and relationship length. *Psicoperspectivas*. 2022;21(2):1–12. doi: <https://doi.org/10.1177/22125868211070036>
23. Khadka S, Shrestha O, Koirala G, Acharya U, Adhikari G. Health seeking behavior and self-medication practice among undergraduate medical students of a teaching hospital: A cross-sectional study. *Ann Med Surg* [Internet]. 2022;78(April):103776. doi: <https://doi.org/10.1016/j.amsu.2022.103776>
24. Shek DTL, Zhu X, Dou D, Chai W. Influence of Family Factors on Substance Use in Early Adolescents : A Longitudinal Study in Hong Kong Influence of Family Factors on Substance Use in Early Adolescents : A Longitudinal Study in Hong Kong. *J Psychoactive Drugs* [Internet]. 2020;52(1):66–76. doi: <https://doi.org/10.1080/02791072.2019.1707333>
25. Sari MP, Ayunin EN, Setyowati YD. Determinants of Adolescents' Desire to Quit Smoking in Indonesia: Data Analysis of the 2014 Global Youth Tobacco Survey. *Dis Prev Public Heal J*. 2022;16(2):85–92. Doi: <https://doi.org/10.12928/dpphj.v16i2.4860>
26. Nugraha B, Defi IR, Yolanda RP, Warliani M, Biben V, Jennie J, et al. Describing community-based rehabilitation services in indonesia by using the international classification of service organization in rehabilitation 2.0. *J Rehabil Medis*. 2021;53. doi: <https://doi.org/10.2340/16501977-2804>
27. United Nations Office on Drugs and Crime. School-based education for drug abuse prevention. 2022. doi: https://www.unodc.org/pdf/youthnet/handbook_school_english.pdf
28. Jusoh AJ, Handrianto C, Walid DA, Wahab S, Rasool S. Drug Prevention Education Programs in Schools in High-Risk Areas: Challenges for Primary School Teachers in Malaysia Ahmad Jazimin Jusoh*. *Al Ibtida J Pendidik Guru ML*. 2023;10(1):1–12. Doi: <https://doi.org/10.24235/al.ibtida.snj.v10i1.12984>
29. Widjaja G. The Importance Of Early Child Drug Education; Indonesian Regulatory Perspective. *Adv Soc Sci Res J*. 2021;7(8). doi: <https://doi.org/10.14738/assrj.78.8907>
30. Ariss T, Fairbairn CE. The Effect of Significant-Other Involvement in Treatment for Substance Use Disorders: A Meta-Analysis. *J Consult Clin Psychol*. 2021;88(6):526–40. doi: <https://doi.org/10.1037/ccp0000495>
31. Nelson LF, Weitzman ER, Levy S. Prevention of Substance Use Disorders. *Med Clin NA* [Internet]. 2023;106(1):153–68. doi: <https://doi.org/10.1016/j.mcna.2021.08.005>