Identification of the Effect of Drug Use Trends on Senior High School in Banda Aceh City: Multiple Logistic Regression Analysis

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Abstract

Introduce: "The problem of abuse in Indonesia has entered an alarming stage, where drugs are not only abused by adults but also by students. There are 6.4% are Senior High School. **Research Objectives:** To identify trends in drug use among Senior High School in Banda Aceh City". **Method:** "Analytical research design with a sample of 256 students with multiple logistic regression analysis". **Result:** "Hereditary factors sig (0.198), parent factors sig (0.018), individual factors sig (0.013), peer risk factors 2.354 times, availability sig (0.007), the cultural factors risk level of 2.420 times". **Conclusion:** "Based on the identification that has been done, it can be concluded that of the six factors analyzed, the Hereditary factor does not have a significant effect on drug abuse, while other factors show a significant effect on drug abuse".

Keywords

Drugs, Hereditary, Parents, Individual, Peer Group, Availability, Culture.

Introduction

"Drugs are a serious problem that currently worries countries in the world, according to the report *Nations Office on Drugs and Crime* (UNODC, 2019). There are 271 million people worldwide (5.5% of the world's population) with an age range of 15 to 64 years who are reported to have consumed drugs, based on these data it is known that 1 in 18 people have used drugs. The report results are estimated globally as much as 4.8%, meaning that there has been an increase in drug users from 210 million to 271 million or an increase of 30% reported that in the last few years, there have been hundreds of new NPS that have been successfully synthesized, the majority of the new NPS is like stimulants. , followed by an increase in the number of opioids. In Indonesia, the drug problem is a latent problem that is very *urgent*, throughout 2018 alone the National Narcotics Agency and the National Police managed to reveal 46,283 cases, with various types of drugs such as Narcotics (40,469 cases), Psychotropics (1,525 cases), hazardous materials (2,906 cases), New active psychotropic (114 cases), and drugs (1,270 cases) (BNN, 2019).

"Drugs also affect young people or adolescents in every part of the world, young people are involved in drug use, drug cultivation, or production, and may also be used as couriers. There are many factors at the personal, micro (family, school, and peer), and macro (socio-economic and physical environment) levels, which influence each other which can make young people more vulnerable to drug use. Most studies show that early adolescence (12-14 years) to late (15-17 years) is a critical risk period for starting to use drugs, the effects of the dangers of drugs are increasingly frightening because the population of adolescents in Indonesia is quite high[3]. In Indonesia, the prevalence rate of drug use among students is 3.2% or equivalent to 2,297,492 people, of which 6.4% are Senior High School. Specifically in Aceh province, the prevalence rate for the last 1 year of drug users for junior Senior High School was 1.0%, Senior High School were 3.3%, and college students 2.7%. Based on these data, it is known that Senior High School are very vulnerable to drug abuse. Aceh Province, said Farid, occupies the sixth position in Indonesia with estimated drug users of 56.192 or 1.90 percent. While the types of drugs used were marijuana 65.5 percent, crystal methamphetamine 38 percent, and ecstasy 18 percent.""The age at first using drugs is 17 to 19 years. Most drug users are in the productive age between 35 and 44 years (BNN, 2019; Santosa et al, 2016).

"Adolescence is a challenging life stage and is often characterized by imbalanced biological, psychological, and social development. This often marks the beginning of many unhealthy behaviors including alcohol and drug abuse (Obadeji, et al, 2020). Also, the adolescent brain develops susceptibility to substance use, with changes in brain structure,

function, and neuro-cognition. alcohol and drug-related nervous stress may have harmful effects on academic, occupational, social, and psychological functioning Substance use also negatively impacts families and communities, with social, physical, and mental health consequences (Russell, Beth S., et al, 2015). Some reasons why adolescents use drugs it has been reported, several factors cause adolescent use drugs to include peer influence factors, increased availability of illegal drugs, parents Dumbili, 2015; Anyanwu˙ 2016. Based on the research that adolescents use drugs to relax (96.7%), getting drunk (96.4%), staying awake at night while socializing (95.9%), increasing activity (88.5%), and relieving the atmosphere. a depressed heart (86.8%) (Boys, A., J. et al, 2001). Other studies have shown factors such as sibling influence, family history, and peer influence are factors related to the likelihood of drug use in adolescent (Birhanu, et al, 2014). Tembakau the use of addictive substances, alcohol, and other drugs during adolescence interferes with brain development and increase the risk of mental health conditions and serious health, including addiction (Feinstein , 2012). Based on the description above, the research is important to analyze the role of social and psychological factors that can provide further insight into the prevention and solving of drug-related problems among adolescents. In this study, a study will be conducted which aims to identify the factors that influence the tendency of drug use among Senior High School in Banda Aceh City."

Review Literature

Factors that influence the tendency to use drugs:

1. Hereditary Factors

"A person's susceptibility to drug addiction can partly be attributed to genetic factors. Drug abuse is often associated with a lack of willpower or self-control, which means that people with addictions make a conscious choice to engage in self-destructive behavior, but experts know that some forms of addiction have root causes related to the cells of the person using them. drugs. American Psychological Association, states that about half of a person's predisposition to drug addiction is due to genetic factors. Genetics may not lead people to experiment with illegal drugs, but once that person starts experimenting, their use can quickly spiral out of control due to underlying genetic factors. We all have a genetic predisposition for addiction because there is an evolutionary advantage to it. When an animal eats a particular food that it likes, there is an advantage to associate pleasure with that food so that the animal will seek that food in the future. In other words, the potential for addiction is embedded in our brains.

2. Parents and Family

"Factors Some of the family factors that cause drug abuse are the behavior of the parents, the relationship between parents and individuals, the relationship between parents, family atmosphere, and family economic status. Substance abuse habits between parents are the most influential factors in influencing substance abuse in children. The influence of parents, not only on drug abuse but things, such as hygiene and health (Alamsyah, T., et al, 2020; Agrawal, 2006; Alamsyah, T., et al, 2019). Good relationships between parents and children and open communication serve as protective factors against the prevention of drug use in adolescents (Wills, 2003). A study of 97 adolescents reported that those from single-parent families tended to have a higher likelihood of regular drug and alcohol use than those from two-parent families. The possibility to initiate drug use in adolescents who do not have parents also proved to be higher than adolescents from families with both parents (Lonczak, 2007).

3. Factors Cultural Beliefs and Values

"Culture is defined as the shared values, beliefs, norms, traditions, and customs of a group of people. The term culture describes the learned and shared pattern of group values and beliefs. These values and beliefs guide the behavior of group members and their social interactions[16]. The rapidly changing social environment contributes to the proliferation of drug abuse, both traditional and new psychoactive substances.

"Culture is divided into drug-specific and non-drug cultural influences on drug use. Drug-specific cultural influences are norms regarding acceptable patterns of drug use while non-specific cultural influences refer to aspects of western culture that influence general attitudes and norms. Culture more broadly can influence individual risk factors for drug use such as social isolation and social support, environmental risk factors such as social cohesion and social exclusion, and social systems and institutions (Rowan, et al, 2014).

4. Individual Situation Factors

"Stress and depression are contributing factors to drug abuse. The NIDA reports that many people start using drugs to feel better, especially those with social anxiety, stress-related disorders, and depression. The term depression includes feelings of sadness, pain, moodiness, or anger. Clinical depression specifically refers to situations in which a person's feelings of depression interfere with daily life. Depression is linked to genetics and may also result from stress such as parental divorce, parental substance abuse, depression in family members, or feelings of inadequacy. This stress can cause feelings of sadness, which

some teenagers have reported as a motivator for them in deciding to start using drugs. This form of "self-medication" is common among adolescents who may not be identified as clinically depressed, but are still suffering from some form of depression (Taylor, 2011).

5. Peer Factors

"Previous research has reported that one of the factors associated with drug abuse is the peer factor which is explained in two ways: the process of socialization and peer selection. Peer influence is the result of socialization, which means that peers can influence a person's behavior. The socialization process explains the growth of prosocial and antisocial behavior and the amount of involvement of drug users affects the increase in a person's drug use (Andrews et al, 2002). Obtaining data from 154 Asian and American men with an average age of 21.57 years who in the last 30 days have been involved in activities as much as 27% binge drinking, 18% abuse marijuana, 8% using illegal drugs, and 3% cocaine abuse. Peer drug use is the strongest predictor of drug use. Therefore, peer influence does play a role in influencing a person's drug use." (Alamsyah, Teuku et al, 2020;Williams, et al, 2007).

6. The Availability Factor

"the drug itself is a driving factor for someone to use drugs. This is because drugs are easier to get and buy. Drug prices are getting cheaper and more affordable by people's purchasing power. Currently, there are various types of drugs with various ways of use, and in the form of packaging. The modus operandi of drug crime is also increasingly difficult for law enforcement to reveal. There are still many dark drug laboratories that have not been revealed. Difficult to reveal computer crimes and money laundering that can help the drug trafficking business. The easier internet access provides information on drug manufacturing. The drug business promises huge profits. Drug trafficking is controlled by strong and professional syndicates. The basic ingredients of drugs (precursors) circulate freely in the community (Williams, et al, 2007).

Method

"Research is a quantitative study conducted with the approach. *Crosectional* Study This research was conducted in 4 high schools in Banda Aceh City with a total of 256 students as respondents. Also, it is analyzed related to data on students' parents (such as age, education, and occupation) and the number of siblings with Multiple Logistic Regression (Diba et al, 2019).

Results

Demographic Data

The following table shows the demographic characteristics of students who are respondents in this study.

Table 1 Respondents Age

Characteristics		Gender		Total
		Male	Female	
Age of students	15-16 years	108	84	256
	17-18 years	45	19	

Table 2 Demographics Respondent's Family

characteristics of		number of	Total
Father Education	Basic		256
	Secondary	228	
	High	28	
Education Capital	Basic		256
	Medium	187	
	High	69	
Father's job is	Official government	27	256
	Private	187	
	Entrepreneur	42	
	Not permanent	-	
Occupation of the mother is	Official government	49	256
	Private	8	
	Entrepreneur	24	
	Not permanent	175	
Number of siblings	1 person	47	256
	2 people	99	
	3 people	71	
	4 people	18	
	More than 4 people	21	

"Based on the data in table 2 it can be seen that the average education of the respondent's father and mother is secondary. Meanwhile, based on occupation, the average father's job is working in the private sector and the average mother does not have a permanent job. While the number of siblings, each respondent varied, but the most number was having 2 siblings."

Factors Affecting the Trends in Drug Use

Analysis of factors affecting the likelihood of drug use among Senior High School in Banda Aceh City. Based on the results of the measurements are shown in the following table 3:

Table 3 Analysis of factors affecting the likelihood of drug

Variabel	Trend				Value P	OR	95% CI	
	Tend		Not Tend					
	n	%	n	%			Lower	Upper
Hereditary								
Yes	29	51,8	27	48,2	0,198	1,546	0,852	2,803
No	82	41,0	118	59,0				
Parents								
Yes	48	53,9	41	46,1	0,018	1,933	1,148	3,255
No	63	37,7	104	62,3				
Individual								
Yes	29	60,4	19	39,6	0,013	2,345	1,234	4,456
No	82	39,4	126	60,6				
Peer								
Yes	40	58,8	28	41,2	0,004	2,354	1,337	4,145
No	71	37,8	117	62,2				
Availability								
Yes	62	53,4	54	46,6	0,005	2,132	1,289	3,529
No	49	35,0	91	65,5				
Culture								
Yes	27	61,4	17	38,6	0,013	2,420	1,243	4,712
No	84	39,6	128	60,4				

Regression Testing Multiple logistics using the enter method, as in the table:

Table 4 Multiple Logistic Regression Test Results

	B	S.E.	Wald	df	Sig.	Exp(B)	95% CI for EXP(B)	
							Lower	Upper
Hereditary	0.280	0.330	0.720	1	0,396	1,323	0.693	2.523
Parents	0.619	0.292	4.497	1	0.034	1.856	1.048	3.288
lives	0.541	0.363	2.223	1	0.136	1.718	0.843	3.498
peer	0.809	0.311	6.758	1	0.009	2.246	1.220	4.135
Availability	0.731	0.272	7.236	1	0.007	2.076	1.219	3.535
Culture	0.765	0.373	4.195	1	0.041	2.148	1.033	4.466
Constant	**-6.142**	**1.284**	**22.872**	**1**	**0.000**	**0.002**		

Based on the data in the table Chi-Square test results showed no significant effect on the prevention of Hereditary predisposition drug use P = 0.198 and the OR value of 1.546. It can be concluded that respondents have a tendency of 1.5 times compared to those who are

not influenced by hereditary factors. Based on the parent variable, it is known that the Chi-Square test results show that there is a significant influence of parental variables on the tendency of drug use with a p = 0.018 and an OR value of 1.933. It can be concluded that respondents are 1.9 times more likely to use drugs than those who are not influenced by their parents. The results of the identification of the influence of individual factors on the tendency of drug use in Senior High School in the city of Banda Aceh showed a significant influence with a p-value of 0.013 with a percentage of 60.4%. Individual influence increased the risk of drug use by 2,345 times compared to children who were not influenced by these factors. individual. Furthermore, the influence of peer factors on the tendency of drug use in Senior High School in Banda Aceh City shows a significant influence with a tendency level of 58.8%, someone who is influenced by peers has a risk of 2,354 times to use drugs, The availability factor of drugs affects the level of the tendency of drug use 53.4%, although the percentage of the tendency is smaller than the peer factor, the level of risk is not much different, namely 2,132 times. The influence of cultural factors on the tendency of drug use in Senior High School in Banda Aceh City shows a significant trend, socio-cultural factors affect the tendency of drug use by 61.4%, with a risk level of 2.420 times.

From the multivariate analysis, it turns out that the variables have a significant relationship with the prevention model. trends in drug use are the variables of parents, peers, availability, and socio-culture. The results of the analysis showed that the Odds Ratio (OR) of the Parents variable was 1.856, meaning that the parents played a role of 1.8 times after controlling for peer variables, availability, and socio-culture. The same can be interpreted for other variables. To see which variable has the greatest influence on the dependent variable, seen from exp (B) for a significant variable, the greater the value of exp (B) means the greater the effect on the dependent variable analyzed. In this data means peer biggest influence on the Prevention tendency of drug use.

Discuss

Influence of Hereditary Against Drug Abuse in Senior High School in Banda Aceh

Based on the research that has been conducted shows that heredity is not a significant influence on the trend of the use of drugs on Senior High School in Banda Aceh city, this can be concluded based on the results of the Chi-Square statistical test which shows a p-value> 0.05. This is different from previous reports which reported Hereditary or genetic influence significantly on drug use (Verweij, 2010). Several studies that have been conducted explain that genetic factors greatly influence individuals to engage in drug abuse

behavior. Hereditary affects the use of addictive substances such as drugs, alcohol, and other illegal drugs as well as influences external behavior such as antisocial behavior (Tucker, 2015). Drug use can have an impact on health, social and cultural conditions. Due to an imbalance of physical and psychological conditions such as stress and decreased self-esteem of patients, various factors can cause health and well-being problems. Stress is a reaction that occurs when a person faces the threat, pressure, or changes in (Suhron, 2018; Yusuf, 2019; Suhron, 2020), and self-esteem is the way a person appreciates, likes, and respects yourself. It is associated with the presence of a specific gene that resulted in a person's dependence on addictive substances from adolescence to adulthood (Dick, 2016). The specific gene associated with addiction is a receptor gene, based on research also showing that genetic factor is a genetic basis for any cannabis involvement although the proportion of genetic factors (Rahmadona, 2014) affecting an individual may be different or specific at each stage, the results of multivariate analysis are used to explore the relationship. marijuana, alcohol, and cocaine or opioids suggest a role for genetic and environmental influences affecting the use of marijuana and other drugs. Based on the description above, the theoretical influence of heredity affects the tendency of drug use in adolescents, this hereditary factor based on the results of the analysis of Senior High School in Banda Aceh City does not provide a significant direction on drug abuse.

The Influence of Parents on Drug Abuse in Senior High School in Banda Aceh City

The results of the Chi-Square statistical test show a p-value of 0.018 (<0.05), this indicates that the parent or family factor is very significant towards drug abuse in-school adolescents in the city of Banda Aceh. Besides, based on the results testing the OR value shows that parental advisers influence being diligent 1.9 times against drug abuse. The results obtained from a research report that there is a significant relationship between the role of parents/family on the tendency drug use with a 4.2 times greater risk if in the family does not play a role in drug prevention or the family there are members who are users drugs (Whitesell, 2013).

Some family factors that cause drug abuse are parental behavior, the relationship between parents and individuals, the relationship between parents, the family atmosphere, and family economic status. Family economic stability has been shown to play an important role in influencing a person's drug use. Family risk factors include childhood abuse (including abuse and neglect), substance abuse by parents or family, marital status of parents, level of parental education, parent-child relationships, family socioeconomic status, and children's perceptions of parents' consent to their drug use (Rustyawati, 2010). Families of drug rehabilitation patients, both in the psycho-educational group and those in

the supportive therapy group are advised to continue to support and coordinate group therapy activities so that they will improve their understanding and will be able to solve their problems together. Based on the results of the research that It has been done to show that parent and family factors play a major role in child drug abuse. Therefore, parents must be able to provide examples and provide knowledge regarding the dangers of drugs so that their children can avoid drug abuse. The role of parents has a direct impact on the child so that the parental factor increases the risk of drug use in children (Chen, 2014).

Peer Influence on Drug Abuse in Senior High School in Banda Aceh City

The results of this study show that there is a significant relationship between peers and the tendency to use drugs. drugs in Senior High School in the city of Banda Aceh, the influence given by peers has also been previously reported which states that there is a significant relationship as indicated by the value of p = 0.001. Peer influence is a major factor in drug abuse. Peer influence is the result of socialization, which means that peers can influence a person's behavior. The socialization process explains the growth of prosocial and antisocial behavior and the amount of involvement of drug users affects increasing a person's drug use.

Cultural Influence on Drug Abuse in Senior High School in Banda Aceh City

Based on the research results show that cultural factors have a very significant effect on the tendency of drug use in Senior High School, This can conclude based on the *C-Square* value which shows a significant *p-value* <0.05 there is a very strong relationship. Environmental and cultural factors based on research results what has been done has a significant effect related to student tendencies High school in the city of Banda Aceh to use drugs. Cultural influence is one of the factors associated with continuing drug abuse. Cultural factors also influence the social education process on drug abuse. a cultural approach can be an alternative in the treatment and prevention of psychological disorders in a person. Other studies have reported that local cultural approaches such as pageu gampong are a fairly good cultural approach to prevent drug abuse (Chen, 2014).

In a cultural context, the thing that causes a person to experience drug dependence is the formation of a tradition in which every individual believes in sustainably consuming opiates. If an individual does not make the connection between the symptoms of the syndrome with the cessation of drug use, addiction to sustainably consuming opiates will not happen, then it appears when people connect syndrome abstinence fear the cessation of drug consumption.

Effects of Situation Individuals Against Drug Abuse in Senior High School in Banda Aceh City

The results of this study indicate that the individual situation positively affects the trend of drug use, the results of statistical analysis show a statistical value of 2.145, from these results, obtained t statistic> 1.96 with *p*-value <0.05. The results of these tests indicate that the individual situation factors have a very high effect on drug abuse, based on the OR value of people who have problems individuals are 2.3 times more likely to use drugs than people with the condition normal individual. In the literature, two individual risk factors that are frequently discussed are *attention deficit hyperactivity disorder* (ADHD) and depression. Similarly, individuals diagnosed with post-traumatic stress disorder or mental illness have a greater risk for drug abuse in adolescents (Chen, 2014). ADHD can be defined as a feeling of restlessness that causes a person to be immobile and impulsive characterized by an impaired inability to wait. Several studies have shown that ADHD in childhood leads to an increased risk of developing a drug use disorder in adolescence or adulthood. In particular, children with ADHD had a greater chance of using drugs, with the likelihood increasing from 1.47 to 3 times.

The Availability Factor of Drug Abuse in Senior High School in Banda Aceh

The availability factor significantly influences the tendency to use drugs in Senior High School in Banda Aceh, this can be seen from the *chi-square* value with *p-value = <0.05*. Drug availability of drug accessibility is one of the factors causing the increase in drug abuse during the last few decades. Similar research reports that in 2007, 22% of students in grades 9 to 12 admitted that they had been offered or given illegal drugs at school. The ease of accessibility of illegal drugs has become a factor in drug abuse among adolescents and youth. To get better income quickly, drug trafficking syndicates are getting more creative and turned into a business carried out by irresponsible individuals. Rationally, the easier the availability of illegal drugs, the greater a person's chance to try, so that the likelihood of drug addiction will increase. Therefore, the availability of illegal drugs is a big problem and requires actions that can be taken to minimize or eliminate these possible negative effects.

Apart from easy access to drugs in schools, another thing that adds to the accessibility or availability of drugs is the financial capacity of the younger generation. On average, students aged 13 to 17 from several public and private schools in Kuala Lumpur, Selangor, and Negeri Sembilan admit to being drug users. Among these students, most of them come from middle to upper-class families with an amount of pocket money, ranging from RM250 to RM1,500 per month.

Based on the description above, the availability factor is related to drug trafficking, making it easier for students to access drugs. The level of easy access to drugs increases the influence of the tendency of drug use on Senior High School. To overcome this problem requires the role of various Kalanga to prevent the circulation of drugs or drugs that can be abused by students so that they can harm the development and growth of Senior High School, especially in the city of Banda Aceh.

Conclusion

Based on the results of the study, shows that various social, cultural, family, peer, availability, and personal elements are complex factors that influence the patterns of drug use in adolescents. The results showed that hereditary factors did not have a significant effect on the tendency of drug abuse to Senior High School in Banda Aceh City. Meanwhile, the factors of parents, peers, availability, culture, and individual conditions have a significant effect on the tendency of drug abuse among Senior high schools in Banda Aceh.

Limitation and Study Forward

Aceh's local art-based drug abuse prevention intervention model is expected to be another different alternative in several ways that have been implemented to prevent the tendency of drug use in the Senior High School at Kota Banda Aceh.

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