



Drug abuse prevention strategy in youth and student community in Indonesia

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ABSTRACT

Background: The prevalence of drug abusers in the world is approximately 5%. Meanwhile, Indonesia in 2015 is estimated at 2.8%, which increases almost doubled in the last ten years. The most significant drug user is at the level of youngsters who live in urban areas. The treatment for the youngster cannot be done by just using the principle of law enforcement. A new strategy is needed. **Methods:** The objective of this study is to analyse some factors which quantitatively gives value to feasible priority approaches. The study is designed as a case study locally in Indonesia, exploring current drug abuse prevention efforts. The strategy proposed in this study is analysed using Analytical Hierarchy Process method. **Findings:** The recommended strategy offered to prevent drug abuse case is to intervene in the social media campaign. The primary action aims to raise community awareness concerning drug abuse. During this time, many policy approaches are ineffective due to lack of cooperation with related stakeholders and determination of prevention programme object through inappropriate media. **Conclusions:** To conclude, social media intervention, as the priority of drug prevention programme for youth and student community, should be well managed to be able to reduce drug abuse effectively.

KEYWORDS: community awareness; drug abuse; prevention programme; social media; youth.

1. Introduction

Provide an adequate The distribution of narcotics and illicit drugs in Indonesia is very worrying, especially in big cities. BNN (Indonesian National Narcotics Agency) estimated that up to 3.1-3.6 million people are drug abusers (BNN, 2016). Research conducted by BNN with Puslitkes UI claimed that in 2015, the prevalence of drug abuse is increased by 2.2% or approximately 4,098 million users (BNN, 2016). This fact is supported by the increase of confiscated numbers and arrest of drug cases. The number of drugs seized goods in 2017 was amounted to 4.71 tons of shabu, 2.94 million ecstasy items, 155.22 tons of dry marijuana and also 1,238 people were captured as suspects of narcotics (BNN, 2017).

The province in Indonesia with the most significant number of drug abusers was West Java with estimated population of 10-59 years old age range is 792,206 people and 33,905,400 people of them were abusers (BNN, 2016). The second largest was East Java Province, with the number of abusers of 568,304 and the prevalence rate of 2.01%. The third was Central Java Province with 452,743 abusers and the prevalence rate of 1.88%. The

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fourth rank was the province of DKI Jakarta with the number of abusers 364,174 and the prevalence rate of 4.74%. The fifth rank of North Sumatera province with 300,134 abusers and the prevalence rate was 3.06%. The data show that the number of drug abusers is spread across major provinces in Indonesia, especially in big cities. It is clear that DKI Jakarta as the capital of the State and the economic centre became the first big city in Indonesia with the highest drug trafficking rate based on prevalence rate.

Based on the research conducted by BNN in 2016, the drugs abuse incidents spread to the various educational background in society. This study is expected to clarify the development of strategies in dealing with drug abuse and trafficking, especially among youth and students. This is necessary because government programmes do not give any significant impact to reduce and overcome drug trafficking, thus specific strategies with innovations are needed to run a more effective and efficient programme.

1.1 Law Enforcement

Law enforcement in drug abuse has been unceasingly encouraged by the Indonesian government. Narcotics and drug crimes have been transnational with high modus operandi and sophisticated technology. Moreover, the development trend of narcotic drug crime in Indonesia shows a bleeding sharp increase. This situation involves illicit drug producers, distributors, and consumers to enlarge and gain profit in the circulation and drug abuse (Kaligis, 2007).

The concept of alternative development is an effort made by an institution or organisation to reduce illicit drug trafficking by providing alternative development in gaff of drug cultivation by considering the aspect of the economic growth of the community, social culture and executed by sustainable (Kramer, 2010). It is known that alternative development is a comprehensive approach to build the life of the community. Alternative development is a measure to prevent and eliminate the illicit planting of narcotic plants through development policies specially designed in the context of sustainable development (Mansfield, 1999).

1.2 Prevention Programmer

The number of the rehabilitation and treatment facilities of victims and drug addicts are increasing due to the effects and impacts of drugs. These conditions occur with the unfolding of networks ranging from low-class distributors to manufacturers. Potential market or consumer of drugs is not just parents, adults and/or already working and well-established people, but adolescents and the younger generation of the nation. Teens and young people who should be the assets of the nation and the country can now turn into the burden of the country if they are not introduced further to the dangers of drugs. They are easily influenced because many changes and unstable emotions tend to cause misbehaviour (Kaligis, 2007). Therefore, the introduction of drugs should start at early age, in addition to moral knowledge. Besides, the process of self-stabilisation is also an important factor, as even though the development of body and intelligence have been really mature and emotionally stable, in some cases spiritual maturity and ideology are still in the process of stabilization.

In medical perspective, it is believed that prevention is better than cure. Similarly, in the context of drug abuse, handling addicts is harder than prevention to reduce the worse consequences. Drug abuse is wrong because it can lead to addiction which results in independence. Drug abuse is usually based on factors that come from individuals, such as knowledge, attitude, personality, gender, age, encouragement, curiosity, and to solve the problems at hand (Badri, 2017). The second factor comes from its environment, such as work, family disharmony, socioeconomic class, and group pressure.

There are three main approaches in their study regarding prevention of drug abuse by students and youth, which are: the study of risk factors, the research of developmental strategies, and the study of social influences (social influence) (Gerstein & Green, 1993). It

is helpful to look at how these approaches relate to each other to determine their differential emphasis on predisposing, enabling and reinforcing the elements or variables in theory and methods of each investigation.

Developmental approaches and sequential models are more structured, ranging from the poor parent (family), school disability, academic deficiency, and inclination towards school opposition groups, who become the seeds of drug use, disorderly behaviour and other problems. The study of social influence, mainly in the student and youth community, is also based on a highly structured theory derived from the concept of self-efficacy and rooted in social learning. Although theoretical foundations have been widely researched and appear strong in many aspects, there has not been sufficient study regarding social differentiation and normative worlds of early adolescence.

2. Methods

In this research, preventive strategy is determined by involving youth community and students. Determination of the approach is done through Analytical Hierarchy Process (AHP) method by analysing the relationship between three criteria and alternatives (Saaty, 2008). The criteria selected based on benefits, risks, and opportunities. This is based on consideration of BNN's policy strategy 4 prevention efforts. In addition, the alternatives that will be considered as prevention strategies include prevention efforts to break the demand chain. The criteria are analysed to determine the priority to achieve the goal of the establishment of prevention strategies. Quantification is done based on BNN policy data and policy direction modification in 2006-2016 full stop. The risk criteria indicate that the developed alternatives consider the risk factors faced by BNN in strategy implementation. Furthermore, the benefit factors show that the selected alternatives are the ones that beneficial amongst other alternative options. The advantages are not material, instead those benefits are to suss prevention objectives of breaking the demand chain and to decrease the number of drug abusers. The last criterion of the opportunity is to measure the magnitude of the opportunity to achieve maximum results.

Some alternatives that were analysed r as follows: the first alternative is school-based prevention programme, the second one is to create a youth club which consists of youth volunteers/students who r prepared to be a peer community. The last alternative is social media intervention through social media platform. Determination of these alternatives r based on the concept of social engagement in which a communicative approach by its characteristics is needed to intervene with a youth group. The strategy undertaken by BNN has become more normative thus a breakthrough 4 more effective implementation is needed. Figure 1 described the hierarchy model used in this study.

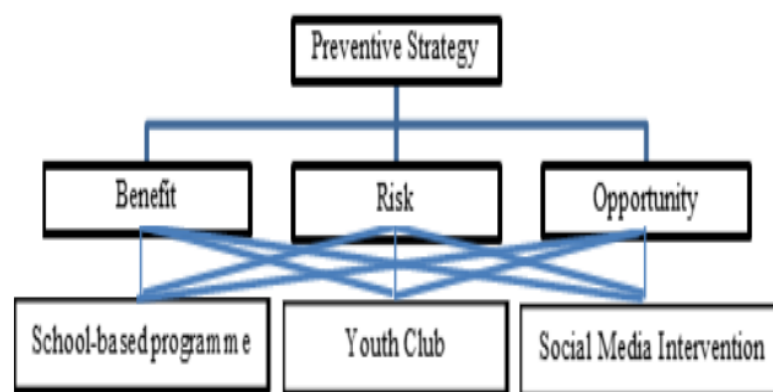


Fig. 1. AHP model for preventive strategy

3. Results and Discussion

3.1 Results

As elaborated, the priority of the alternative strategy is to be determined through a comparison concerning each criterion. The value of the criteria and alternatives are determined to meet the outcome of developing the new approach to drug abuse prevention programme. This analysis is based on a multidisciplinary approach to the study of literature studies, including studies of social, economic and technology.

Table 1. Pairwise comparison criterion related to goal

Criterion	Risk	Benefits	Opportunities	Normal	Ranking
Risk	Equal (1)	Moderate Important (3)	Essential (5)	0,64	1
Benefit	Moderate lessimportant	Equal	Moderate Important (3)	0,26	2
Opportunities	Less Essential (0,20)	Moderate Less Important (0,33)	Equal (1)	0,10	3
Consistency Rasio			0,037		

Based on the results of the pair-wise comparison in Table 1 in respect to the criteria to determine the objective of the selection of drug abuse prevention strategies among youth and student community, it was found that the risk criteria is a priority with the result of 63.70%. Prevention programme has been done by BNN, however the data shows that the result is insufficient. Therefore, the results of the AHP/ANP assessment proves that risk factors need to be the basis for the choice of drug abuse prevention strategies. The results of this assessment are also in line with the results of a study by NIDA (National Institute on Drug Abuse) in the US that the principle of prevention of drug abuse should be the focus on risk factors and preventive factors (Ardjil, 2018). Consistency ratio of 3.70% indicated that the results of the analysis are valid by the requirements (<10%) (Saaty, 2008). This method deals with subjective judgment, and it may include a high degree of inconsistency. Saaty (1998) proposed to analyse Consistency Ratio by comparing Consistency Index to Random Consistency Index (Saaty, 1998). If Consistency Ratio is equal to or less than 10%, the result is categorised as consistent and acceptable (Saaty, 1998).

Furthermore, pair-wise comparison assessment of alternative strategies is to determine which prevention strategy is a priority.

Table 2. Pairwise comparison matrix between criterion to the alternatives

	Risk				Benefit				Opportunity			
	SP	YC	SMI	Normal	SP	YC	SMI	Normal	SP	YC	SMI	Normal
SP	1	0,20	0,14	0,072	1	7	5	0,731	1	3	0,20	0,178
YC	5	1	0,33	0,279	0,14	1	0,33	0,188	0,33	1	0,11	0,070
SMI	1	0,20	0,14	0,647	0,20	3	1	0,081	5	9	1	0,752
Consistency Rasio Index			0,062				0,062				0,028	

Note: SP=school-based programme; YC=youth club; and SMI=social media intervention.

Table 2 shows the results of pair-wise comparison analysis between alternatives for the criteria to determine priority prevention strategies. In this study, all analyses were performed using Superdecision ver 2.6 software. Based on the result of pair-wise comparison between alternatives to risk criteria, it was found that social media intervention strategy is the leading alternative by 0,647 followed by establishment of youth club (0,279) and school-based prevention programme strategy (0,072). In the alternative analysis of benefit criteria, the school-based prevention programme scheme is a priority (0,731),

followed by the establishment of the youth club (0,188) and social media intervention (0,081). Social media intervention remains to be the primary strategy when analysed against the criteria of opportunity with 0,752. The next approach is the educational campaign with the result of 0,178 and the formation of youth club equal to 0,07. The three results of the analysis are eligible because all results show consistency ratio show less than 0,10.

Table 3. Final results of AHP analysis

Alternatives	Total	Normal	Ideal	Ranking
School-based Programme	0.127	0.253	0.468	2
Youth Club	0.103	0.206	0.381	3
Social Media Intervention	0.270	0.541	1.000	1

Priority prevention strategies that are selected sequentially are shown in Table 3. Social media intervention is a top priority to the criteria of risks and opportunities (0,541). This is in line with the condition where the current APJII (Association of Internet Service Providers Indonesia) in 2017 showed that the penetration of Internet users in Indonesia reached 54.68% or equivalent to 143.26 million people from a total population of approximately 262 million people (Ministry of Communication and Information Technology, 2018). Moreover, 97.9% of internet users in Indonesia have access to social media, and compared to the total population of Indonesia, 48% of them use social media (Kemp, 2018).

Prevention programme should address the greater concept of health promotion, substance abuse in general (Notoatmodjo, 2012). Massive penetration of social media becomes a momentum to develop proper prevention programme. Since the regulation of online drug distribution is still absent, the existence of online media needs to be used also as a means of promotion. However, a breakthrough in the dissemination of information needs to be adapted to the target or the receiver of information.

3.2 Discussion

Prevention strategies through social media intervention by targeting users from youth and students can improve the effectiveness of the strategy due to social interaction. This social interaction involves the latest means of communication and technology hence access to social resources including friends, acquaintances and members of other associations can be mutually engaged and interacted [Pralhad & Ramaswamy, 2004; Wixom & Todd, 2005; Jensen & Aanestad, 2007]. It compiles sequential health messages with storytelling methods. Previous research showed that storytelling is one of the most useful tools to share information about health (Hopfer, 2011). Based on narrative engagement theory, a narrative story told specifically will shape the engagement of audience and increase health behaviour (Lee et al., 2011). The presence of youth social media influencers could become the potential resources as programme providers. It creates more significant opportunities and BNN as the authority government should provide training to construct more effective messages and connect narrative quality with the influence outcomes. Without training, the stories will be lacking of specific point associated with the effectiveness of the messages (Miller-Day & Hecht, 2013). This approach is described in the concept of science-technology-society. It combined science and technology approach and was applied to the society, where science and technology are the valuable sources for detection technology (Lee, 2010).

Previous research has shown that one of the determinants of successful drug abuse prevention programmes is to find the right approach to information dissemination and education (Rigg & Menendez, 2018). One of several advantages of school-based prevention programmes is the involvement and participation in prevention programmes (Greenberg, 2004; Mihalic et al., 2008). The teacher has closer interaction with students, and it reduces time consumed for adaptation. The adaptation process plays an important role in this

programme because youths or students usually rely on the stability of a situation. This familiar environment helps students to avoid disruptive behaviour and anxiety (Robertson, 2003). However, this programme needs to be integrated into the academic curriculum, and it will need time to settle the schedule. The teacher requires training to deliver the message prevention programme, and it may not be available for every teacher in the school (Cui et al., 2013). The other challenges are to find the funds for teacher training and incentive for the scheme.

Meanwhile, the peer-to-peer community concept is suitable to pursue the outcomes because they usually communicate effectively compared to adults. Prior to settling the strategy, drug culture needs to be defined in the environment and the students or youths who get the benefit from participating in the group should be identified. Same as previous alternatives, BNN should understand which types of activities would attract the community. The programme will be effective if it involves the target community at every step of the development of youth-club prevention programme. Furthermore, the concept creates some challenges, including cultural and traditional sensitivity.

Regarding policy evaluation, government poses a major obstacle to the availability of data that can be used as the basis for policy formulation. The government should dedicate its resources to collect and report the data necessary to support a conclusion, and develop the evidence-based policy. Acquiring substantial drug abuse data has not been an easy and simple task, because it is usually impeded by potential law repercussions, and the social stigma related to drug abuse. The weaknesses on existing and valid data can cause to misleading conclusion to predict drug abuse trend and propose appropriate policy (Perdue et al., 2018).

Moreover, BNN should consider increase pharmacists' role and responsibility towards the eradication of drug abuse. Additionally, pharmacists should take a part in identifying fraudulent prescriptions and become aware of the practices utilised by drug seekers to procure prescriptions. Overall, pharmacists as the most accessible health-care professionals can play a significant role to address this public health issue (Nguyen, 2017). The government has limited resources and it leads to increasing civil society part to establish a drug-free environment. With technical knowledge of medicine, the role of the pharmacist can be actualized to be more optimal in service to the community (Smith et al., 2016).

4. Conclusions

The result from a study shows that social media intervention is the priority of drug prevention programme 4 youth and student community with respect to benefit, risk and opportunity criteria using AHP method. The prevention programme is considered as the better strategy to the youth community and it has shown that law enforcement is no longer become the priority to eradicate drug abuse in youth community. To prevent drug abuse, the government should create an environment where no drugs are available by prohibiting illicit drug trafficking organisations as the source of the drug supply; eliminate the demand 4 drugs by strengthening the crackdown on end-users and increase measures to address diversifying drugs 4 abuse. Dissemination of information through social media and online media path can be appropriate to the current developments especially 4 youth community as the object. Furthermore, these efforts are aimed to raise public awareness as civil society is a catalyst 4 ensuring public health.

This study recommends further research concerning strategy formulation of long-term prevention programme in drug abuse. The innovation to develop strategies by utilizing the technological advances of big data and artificial intelligence should be elaborated deeper. This could be a bleeding resourceful policy formulation because the approach will be based on real-time data that may allow the government to predict drug abuse trends and respond more quickly.

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