



The Effect of Health Education towards Knowledge and Teenager Attitudes in Consuming Liquor, Kupang City in 2016



Christine Ekawati ^a

N Adiputra ^b

Raka Sudewi ^c

Dyah Pradnya Paramita Duarsa ^d

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Abstract

The liquor that was consumed by the teenagers continuously could lead to the health and behavior disorders. The research type was a quasi-experiment with the randomized pre-test post-test control group design. The technique of collecting the data in the present study was the Random Sampling. The respondents included 40 students in SMAN 1 as the treatment group and 40 students in SMAN 3 as the control group. The study result was obtained, there indicated that the health education interventions in the treatment group succeeded significantly improving knowledge and changing the teenager attitude for drinking.

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Author correspondence:

Christine Ekawati,

Department of Environmental Health, Health Polytechnic Kupang, Indonesia

Email address: christinerohi888@gmail.com

1. Introduction

The liquor or often called alcohol is Ethanol or Ethyl Alcohol. Ethanol is a compound consisting of Carbon elements, Hydrogen, and Oxygen that can be metabolized by the body. Whereas, the Methanol will be oxidized into formaldehyde into the body that is toxic for the human body (McMurry *et al.*, 2010).

The liquor consists of the psychoactive substances that are addictive. The psychoactive substances are the class of substance that selectively works, especially in the brain, therefore, it can due to the change of behavior, emotion, cognitive, perception, awareness of someone and others. Whereas, the addictive substance is a substance when it

^a Health Polytechnic Kupang, Indonesia

^b University of Udayana, Denpasar, Bali, Indonesia

^c University of Udayana, Denpasar, Bali, Indonesia

^d University of Udayana, Denpasar, Bali, Indonesia

used can due to be addiction or dependence for a teenager who continuously consumes alcohol will depend on the liquor itself (Heffernan *et al.*, 2010).

The health education is an effort of the persuasion or learning to the society, therefore, it will take some actions to maintain, and improve its health level. The health education aim is the health or behavior to maintain and promote a conducive health. There is a thing that the health education has changed is about the cultural issues. Consuming of the liquor is a social culture in NTT (Notoatmodjo, 2012). The teenagers who are accustomed to drinking liquors usually do not gain a good knowledge of what goes into their body. It is, therefore, necessarily provided the Health Education that focuses on how Ethanol gets into their body and its effect towards the health.

The liquor as well as can lead to the behavioral changes to be rough, not focused on the lessons due to the excessive liquor is consumed will disrupt the brain function. It can disrupt of the communication between the two brain parts i.e. amygdala and prefrontal cortex. The amygdala is a brain part that plays a role in the processing and emotional reaction memories. It means that the teenagers who consume it, their emotional liquor become uncontrollable. The brain space is located in the "prefrontal cortex" is responsible for cognition and behavioral regulation. Therefore, the teenagers who consume a liquor, their behavior is often uncontrolled (Amaral, 2003; Balleine and Killcross, 2006; Cardinal *et al.*, 2002; Edy, 2009).

The regulations regarding liquor for teenagers have not special attention by the government. Although, it is established in the Trade Minister Regulation of the Republic of Indonesia No. 20/M-DAG/4/2014 the about Control and Supervision of Procurement, Distribution, and Alcoholic Beverages Sales in the Article 15 concerning the alcoholic beverages sale shall only be made to persons 21 years old or over. However, the fact is the reality runs not in accordance an establishment. The teenagers under 21 years old can freely buy the liquor, despite it is very serious impact among the teenagers. The impact due to the free circulation of the liquor, unlike the social order destruction in Indonesia, even there are many criminal cases to claim casualties due to alcohol in Indonesia. BPS data in 2012 showed a very pity number i.e. 83.1% of Indonesian teenagers had been drinking alcoholic (Bahri Djamarah, 2011). In Indonesia, every year the estimated death toll due to the alcohol reaches 19,000 people.

Based on Riskesda data in 2007, the liquor prevalence in NTT was 17.7%. There were three regencies that have the highest prevalence i.e. Ngada (38.3%), Lembata (36.5%) and North Central Timor (32.7%). For Kota Kupang the prevalence rate of the liquor drinkers was 8.7% higher than the national prevalence rate is 4.6% (Departemen Kesehatan RI, 2008).

The health education has been proven to effectively increase their knowledge about the dangers of smoking therefore, it is as well as expected to increase the knowledge change of the teenager's attitude not to drink alcohol. It is provided to the students of SMAN 1 and SMAN 3 Kupang. SMAN 1 is the treatment group and SMAN 3 as the control group. In the treatment group was given the health education intervention in the each small group discussion consisting of five people and there are 4 groups.

2. Materials and Methods

Research Design and Research Variables

The research type is the quasi-experiment with randomized pre-test post-test control group design that is attended to know the improvement of knowledge and attitude for the teenagers about a liquor using the Health Education in SMAN I Kupang as a treatment group and SMAN 3 Kupang as a control group.

Time and Research Location

This research was conducted in Kupang City, East Nusa Tenggara Province on December 2016 - February 2017.

Population and Sample

The population in the present study were all the male students in SMAN 1 and SMA 3 Kota Kupang Kupang who have consumed liquor. The technique of collecting the sample in the present research i.e. Random Sampling is a sampling method wherein all the population has an equal opportunity to be sample member. An intervention is 40 respondents and the control group is 40 respondents. Therefore, the total sample is 80 respondents. In determining the sample is required to meet the criteria of inclusion and exclusion.

Data Collection

The primary data were obtained from the observation during the research process, wherein the intervention group was provided the health education for 6 weeks and the control group was not treated. The initial data collection included subjects, subject characteristics and the questionnaire about a liquor knowledge consisted of 10 questions and their attitudes regarding alcohol were 15 questions.

Data analysis

An univariate analysis is done to get a general description based on the research problem by describing each variable that used in the present research, i.e. by observing the frequency distribution description as well as the single percentage that related with the research aims.

3. Results and Discussions

The univariate analysis results at describing the respondent's distribution based on the respondent's characteristic i.e. age. They duration consume a liquor, whether they drink an alcohol for free, whether they drink an alcohol with their family, and whether they drink an alcohol with their mates.

Table 1
The respondents characteristic description that consumes a liquor

| Variable | Characteristic | Intervention (N=40) | | Non-Intervention (N=40) | |
|---------------------------------|----------------|---------------------|------|-------------------------|------|
| | | F | % | f | % |
| Age | 16 | 2 | 5 | 2 | 5 |
| | 17 | 29 | 72.5 | 33 | 82.5 |
| | 18 | 9 | 22.5 | 5 | 12.5 |
| Drinking duration | 1 | 1 | 2.5 | 2 | 5 |
| | 2 | 3 | 7.5 | 3 | 7.5 |
| | 3 | 22 | 55 | 20 | 50 |
| | 4 | 11 | 27.5 | 11 | 27.5 |
| | 5 | 3 | 7.5 | 4 | 10 |
| Ever drinking a liquor for free | Yes | 36 | 90 | 33 | 82.5 |
| | No | 4 | 10 | 7 | 17.5 |
| Drinking a liquor with family | Yes | 20 | 50 | 12 | 30 |
| | No | 20 | 50 | 28 | 70 |
| Drinking a liquor with mates | Yes | 40 | 100 | 39 | 97.5 |
| | No | 0 | 0 | 1 | 2.5 |

The result of the respondent's characteristic analysis in Table 1 shows that the majority of respondents in the intervention and non-intervention classes are 17.5 years old and 72.5% and 82.5% respectively. Whereas, the most drinking duration in the intervention class and non-intervention class is for each of them 3 years, 55% and 50%. Almost all the teenagers have experienced drinking an alcohol for free without buying each is 90% intervention class and the non-intervention class is 82.5%. The teenagers who drank an alcohol with their families in intervention and non-intervention classes are 50% and 30%, however, all the teenagers at drinking intervention classes with their mates and merely 2.5% for non-intervention classes who never drank alcohol with their mates.

Table 2
The Analysis of the Knowledge and Respondents Attitudes at Consuming a Liquor on Intervention Groups and Control Groups (Non-Intervention)

| | | Mean | N | Std. Deviation | Std. Error Mean |
|--------|---------------------------------------|------|----|----------------|-----------------|
| Pair 1 | Knowledge of pretest intervention | 1.13 | 40 | .335 | .053 |
| | Knowledge of posttest intervention | 1.68 | 40 | .474 | .075 |
| Pair 2 | Knowledge of pretest non intervention | 1.10 | 40 | .304 | .048 |
| | Knowledge of posttest nonintervention | 1.30 | 40 | .464 | .073 |
| Pair 3 | Intervention pretest attitude | 1.25 | 40 | .439 | .069 |
| | Intervention posttest attitude | 2.38 | 40 | .490 | .078 |
| Pair 4 | Nonintervention pretest attitude | 1.30 | 40 | .464 | .073 |
| | Nonintervention posttest attitude | 1.35 | 40 | .483 | .076 |

The respondent's knowledge mean score about liquor is in the pretest intervention group 1.13 with the standard deviation is 0.335 mastering increased to 1.68 with the standard deviation is 0.474. Whereas, in the control group showed the subject average about drinking at the pre-test time is 1.10, the standard deviation is 0.304 and increased to 1.30 with the standard deviation is 0.464. The average mean of respondent knowledge during pre-test is the highest in the intervention group and lowest in control group (Table 2). When the post-test occurred, there was an increase in the knowledge mean value of the intervention group and the control group with the highest mean value was in the intervention group and the lowest was in the control group. Likewise regarding an attitude. The average mean of the attitude in the intervention class, a pretest is 1.25 with the standard deviation is 0.439 has increased to 2.38 with the standard deviation is 0.490. However, in the control group showed the average subject attitude about the liquor at the pre-test occurred is 1.30 with the standard deviation is 0.464 and the attitude increased in the small number is 1.35 with the standard deviation is 0.483. The average mean of the attitude for the respondents during the pre-test is the highest in the intervention group and the lowest is in the control group (Table 2). The post-test occurred, there is to increase in the attitude mean value in the intervention group and the control group with the highest mean value is in the intervention group.

Discussion

The research results stated that high school students, when provided a treatment i.e. the Health Education wherein they are provided the knowledge about liquor, is alcohol more precisely consist of Ethanol or Ethyl Alcohol and how Ethanol influence on the health as well as the behavior. Through the health education provided to the teenagers, they become aware of alcoholism and its effects on their health and how liquor can interfere with neuronal work, therefore, the teenager behavior can turn out to be bad. The habit of drinking a liquor starting from a trial, until they like and ultimately affected by psychic substances that are addictive in the liquor itself (Heffernan *et al.*, 2010).

The teenagers consume a liquor due to the lack of knowledge that provided to them, therefore when they offered to drink finally willing. Then, they are affected by the liquor and eventually get used to consuming it. The social motive for a drunker must be strong desire to find a liquor. When the teenagers get together and there is no activity that they do, then they will drink a liquor. Especially, if one of them bought a liquor then, they will both consume it. For the teenagers in Kupang City, if they drink alcohol together, it is a sign they are friendly or families. If any of them refuse an offer to consume a liquor, then it means the person is not a friend or their family. The brain disorders are also reacted with the psychological disorders unlike worry, depression/sadness, anger, anxiety, difficulty concentrating and compulsive behavior (Amaral, 2003; Balleine and Killcross, 2006).

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The health education programs for the high school students produce a positive change both the about knowledge and attitude. It is also effective in reducing the students consume a liquor. The liquor substance provision in terms of the health, chemistry and behavioral aspects by developing several methods of discussion, simulation with tools and media to make the substance giving process is to be active, the creative and effective as well as fun for students who receive the intervention for those who provide the intervention. It can merely make the participants and the instructor more interested and more concentrated in getting the material and giving the material (Notoatmodjo, 2012).

4. Conclusion

Based on the research results, it was obtained that the intervention group with the Health Education Program could increase the knowledge and change the attitude of the teenagers in consuming a liquor than the control group.

Conflict of interest statement and funding sources

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Statement of authorship

The author(s) have a responsibility for the conception and design of the study. The author(s) have approved the final article.

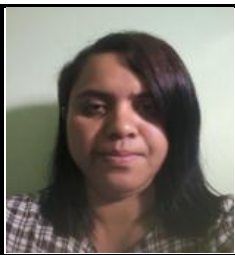



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Biography of Authors

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|  | <p>She is a doctoral student at the University of Udayana, she is from Kupang, NTT. Her research interests are related to the consumption of the liquor by the teenagers in Kupang city due to the various factors influence. She just conducted her dissertation that is advisory by the three professors who completed the present article well. <i>Email: christinerohi888@gmail.com</i></p> |
|  | <p>Prof. Dr. dr. N. Adiputra, M.OH is a professor who teaches at the University of Udayana. He qualified in the Physiology of the Faculty of Medicine at the University of Udayana.</p> |
|  | <p>Prof. Dr. dr. A.A. Raka Sudewi, Sp. S (K) is a professor who teaches at the University of Udayana as well as the Postgraduate Director</p> |
|  | <p>Dr. dr. Dyah Pradnya Paramita Duarsa, M. Si is a person who teaches in the Faculty of Medicine, especially the Public Health Sciences in the University of Udayana.</p> |