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EXPLORING THE VULCASEAL AND RUGBY BOYS PHENOMENON: BASIS FOR A HEALTH EDUCATION PROGRAM"

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ABSTRACT

This study determined the reasons and physiologic effects of using vulcaseal and rugby hence the so-called "Vulcaseal and Rugby Boys". The findings of this study served as basis for a proposed health education program. It utilized mixed type of research design in order to determine the reason and physiologic effect of using volatile substances. The data collected utilized a research-made questionnaire and an interview guide. Majority of the respondents' reasonfor drug abuse was peer pressure. The findings revealed that vulcaseal and rugby as the most abused substance due to its accessibility to the market and home. The study also revealed that red eye and hallucination are the most common effects manifested by the respondents after sniffing volatile substance. Based on the results of the study, the researchers would like to recommend addressing peer pressure as basis for the health education program. The researchers further suggest future researchers to continue this study and evaluate the progress of the implemented program, and identify other substance being abused.

INTRODUCTION

Substance abuse is described as the over indulgence of chemical substance and the resulting dependence interferes with life's activities. Each year there is alarming increase in the abuse of mind- and mood-altering substances (Ignatavicious *et al.*, 2006). However in the Philippines, there is this occurrence of the vulcaseal and rugby boys which has has become a societal problem.

Breathable chemical vapors as RUGBY and VULCASEAL that produce psychoactive effects are classified as volatile substances and in a specific term called inhalants. These substances are popular with young people because of their accessibility in the home along with the low price. Three categories of inhalants are common household items. These are firstly, solvents like paint thinners, gasoline, paper correction fluid, felt-tip markers, and electronic contact product cleaners. Gases are another source of inhalants and include products such as butane lighters, propane tanks, whipping cream aerosols, spray paints, hair or deodorant sprays, chloroform, either, and nitrous oxide (laughing gas). Nitrates are the third source of inhalants and include cyclohexyl nitrates, amyl nitrites, butyl butane (Guevarra, 2010)

According to the United States' National Survey on Drug Use and Health, the annual number of persons with substance dependence or abuse in 2012 is 22.2 million, higher than the number in 2011 which is 20.6 million. However, in the Philippines, an estimated of 1.7 million Filipinos is hooked on drugs, with 1,700 of them dying each year due to addiction (Diaz, 2012).

As published by Manila Bulletin last February 18, 2013, street children were 36.7 times more likely to use drugs, usually inhalants, belonging to the 13 to 17 age bracket and 50% of at least 1.5 million street children inhale glue and other solvents that are sold cheap and readily available. In an article on the Freeman in November 13, 2012, it was reported that minors who use the sealants for the purpose of inducing intoxication, according to reports, have shifted to Vulcaseal from Rugby because Vulcaseal is more affordable, accessible and is not restricted. However, an ordinance No.12-2011-668, which was approved last February 14, 2013, clarified that the measure does not only restrict the use of "Rugby" but also "Vulcaseal" and other common place sealants.

In the adopted community of the University of Cebu Lapu-lapu and Mandaue (UCLM) which is Brgy. Looc, Mandaue City, there were 45 reported cases of substance abuse in the first quarter of 2013 which comprised mostly by young adults or teenagers and the number continues to rise as the years go by. These cases were reported to the Police Station, 5 of which is then turned over to Department of Social Welfare and Development (DSWD). Based on the Police record, these people were caught pick pocketing and theft under the influence of drugs. The top 3 most abused drugs in Philippines are shabu, marijuana, and rugby which is categorized as household volatile adhesive (sealants) (Hock *et al.*, 2016)

The researchers being clinical instructors and nurses are front liners of health promotion and illness prevention. They wanted to intervene with the occurrence of the so called sealant boys/ rugby boys of Brgy. Looc. Aside from that, they would want to determine the reasons and physiological effect of using volatile substances and would propose an intervention program to help these group of people be aware and enlightened with the ill-effects of these substances.

FRAMEWORK

This study is anchored on Theory of Reasoned Action by Martin Fishbein and Icek Ajzen (Sarver, 1983) which suggests that a person's behavior is determined by his/her intention to perform the behavior and that this intention is, in turn, a function of his/her attitude toward the behavior and his/her subjective norm. The best predictor of behavior is intention. The intention is the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. This intention is determined by three things: their attitude toward the specific behavior, their subjective norms and their perceived behavioral control (Walker, 2007). It was further stated that theory of Reasoned Action (TRA) explains the relationship among beliefs, attitudes, intentions, and behavior. It assumes that people are rational and make decisions based on the information available to them. The goal of the TRA, therefore, is to understand and predict behaviors that are largely under the individual's control. The TRA was later modified to the Theory of Planned Behavior (TPB) (McEwen and Wills, 2007).

In connection to operant conditioning approach by B.F Skinner, stated that the best way to understand behavior is to look at the causes of an action and its consequence. He coined the term operant conditioning which means roughly changing of behavior by the use of reinforcement which is given after the desired response. Reinforcement refers to those nice things that follow a behavior that increases the probability that the behavior will happen again (Carlson, 2011). This supporting theory is used to determine the effects or the result of the action either good or bad.

In addition, pleasant or rewarding consequences of behavior are of two types, called negative reinforcement and positive reinforcement. In positive reinforcement, the frequency of a behavior increases because it is followed by the presentation of something that is good while in negative reinforcement, the frequency of a behavior increases because it is followed by the removal of something unpleasant. Both of these types of consequences are experienced as pleasant, and both increase the frequency of a behavior (Fadem, 2006).

METHODOLOGY

The researchers utilized a mixed type of research design in a researcher-made questionnaire which is composed of three parts. Part I tackles with the profile of the respondents; Part II elaborates the reason of using volatile substances, type of volatile substance used and the effects that they experience; The third part of the questionnaire provided the follow-up questions for each item.

The study was conducted in the Department of Social Welfare and Development wherein the focus-group discussion was conducted and is situated at SDC. BLDG. P. Burgos St. Centro Mandaue City near Mandaue District Hospital and Mandaue City Comprehensive National High School. The respondents were chosen through purposive sampling and were residents of Brgy. Looc, Mandaue City. The respondents were reported to DSWD as the vulcaseal and rugby boys. There were 10 respondents gathered.

Upon the University's approval, a permission letter was approved by the head of the Department of Social Welfare and Development (DSWD). The consent letter was also approved by the parents of the respondents, as most of them were minors. In one of the Alternative Learning System (ALS) sessions in the DSWD, the questionnaires were administered to the respondents. They were informed about the research, objectives, and confidentiality. Answers were verified by the DSWD staff and their parents to ensure accurateness and completeness. Simple percentage was used to treat the data.

RESULTS AND DISCUSSIONS

Table 1 presents the profile of the respondents that includes the age, gender and educational attainment. It also showed the substance utilized by the respondents, the frequency and the duration of usage of the volatile substance.

Table 1: Profile of the Respondents

#	AGE	GENDER	EDUCATIONAL ATTAINMENT	SUBSTANCE USED	FREQUENCY OF USAGE	DURATION OF USE
1	8	MALE	Grade 1	Vulcaseal	2-3 times a week	6 months and above
2	10	MALE	Grade 5	Vulcaseal and Rugby	2-3 times a week	6 months and above
3	12	MALE	Grade 5	Rugby	2-3 times a week	6 months and above
4	14	MALE	Grade 3	Rugby	2-3 times a week	6 months and above
5	15	MALE	Grade 1	Vulcaseal	2-3 times a week	6 months and above
6	16	MALE	Grade 1	Vulcaseal	2-3 times a week	6 months and above
7	16	MALE	Grade 1	Vulcaseal	2-3 times a week	6 months and above
8	17	MALE	Grade 3	Vulcaseal and Rugby	2-3 times a week	6 months and above
9	18	MALE	Grade 1	Vulcaseal and Rugby	2-3 times a week	6 months and above
10	18	MALE	Grade 4	Vulcaseal and Rugby	2-3 times a week	6 months and above

The table presents that volatile substances are abused commonly by adolescents and all are males with usage of 2-3 times a week for more than 6 months. The results are congruent to the study of Guevara (2010), that substances are most popular with young people because of their accessibility (in the home) and price. These inhalants are common household items that cause a feeling of "high" when inhaled. In the fifth column, it revealed that vulcaseal and rugby are the most common volatile substances used by the respondents. In connection with this, the Freeman (2012) stated that minors who use sealants for the purpose of inducing intoxication, have shifted to vulcaseal and rugby because it was more affordable, accessible and was not restricted.

Some signs of risk that may predict later drug abuse can be seen as early as infancy. Children's personality traits or temperament can place them at increased risk for drug abuse. Withdrawn and aggressive boys often exhibit problem behaviors in interactions with their families, peer, and others in their encounter in social settings. If these behavior continue, they will likely lead to other risks. These risks can include academic failure, early peer rejection, and later affiliation with deviant peers, often the most immediate risk for drug abuse in adolescence. Studies have shown children with poor academic performance and inappropriate social behavior at ages 7 to 9 are more likely to be involved with substance abuse in the age group14 to 15 years (Aldanese, 2010).

Table 2: Effects of Using the Substance

EFFECTS	FREQUENCY
Red eye	8
Hallucination	7
Nausea and Severe Headache	6
Drunken Behaviour	5
Changes in Sleep Pattern	5
Coughing	4
Changes in Appetite	1
Increased heart rate and shallow breathing	1
Anxiety	1
Aggressive behaviour	1
Double Vision	1
Others: Stomachache	3

Table 2 presents the physiologic effects manifested by the respondents. It shows that red eye is the common manifestation of the respondents after sniffing the volatile substance followed by hallucination, nausea

and severe headache. Other effects include drunken behaviour, changes in sleep pattern, coughing and stomach ache. According to Manwong (2007), volatile substances have the property of releasing toxic vapour or fumes which when sniffed, inhaled or introduced into the physiologic system of the body produces or induces a condition of intoxication, excitement or dulling of the brain or nervous system.

It is further explained by George (2011), that the long-term effects of volatile substance include destruction of cells that relay sound to the brain which in turn may cause deafness and the oxygen carrying capacity of the blood is inhibited. Damage is also caused to the cerebral cortex and the cerebellum resulting in personality changes, memory impairment, hallucinations, loss of coordination and slurred speech (Gaskil *et al.*, 2012). Likewise, volatile substance has its' short-term effects to the body. Some effects include sneezing, coughing, red eyes, runny nose or bleeding nose, nausea and severe headaches (Buker, 2011).

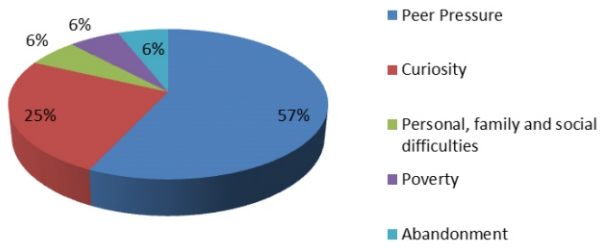

Figure 1. Reasons for Using Volatile Substance

Figure 1 presents the reason of the respondents for using volatile substances. Peer pressure and curiosity are the common reasons for juveniles to engage in these substances. In a study by Guevarra (2010), revealed that many factors can be a reason for the uses of volatile substances. It can be a feeling of loneliness and abandonment, family problems, peer pressure, poverty, their only friend when in need, or just through simple curiosity (Bertrand *et al.*, 2013).

Curiosity is a common reason for engaging in substance use according to Jacobson (2006) and also stated that the main difference is that young people who have used volatile substances can become affected very quickly and experience disturbing hallucinations and such effects can carry from person to person. One of the very things that can shake a person's decision making is the presence of stressors. Out of the uniqueness of every individual, similar problems are faced in different ways. Some will solve it courageously, while others hide and escape from it. Others direct themselves on activities that can make them forget the stress

In a study by Martin Fishbein and Icek Ajzen entitled Theory of Reasoned Action which suggests that a person's behaviour is determined by his/her intention to perform the behaviour and that this intention is, in turn, a function of his/her attitude toward the behaviour and his/her subjective norm. The best predictor of behaviour is intention. Intention is the cognitive representation of a person's readiness to perform a given behaviour, and it is considered to be the immediate antecedent behaviour. This intention is determined by three things: their attitude toward the specific behaviour, their subjective norms, and their perceived behavioural control (Walker, 2007).

The result agreed with the theory of Reasoned Action (TRA) that explained the relationship among beliefs, attitudes, intentions and behaviour. It is assumed that people are rational and make decisions based on the information available to them. The goal of the TRA, therefore, is to understand and predict behaviours that are largely under the individual's control. The TRA was later modified to the Theory of Planned Behavior (TPB) (McEwen and Wills, 2007). The result is in congruence with a study conducted by Kasandra Castillo (2009) that reported that stressful life events, peer influence, and failure of parents to take their children away from harmful activities is the cause of teenager to get involved in drug use.

CONCLUSION AND RECOMMENDATION

The findings revealed that vulcaseal and rugby are the most abused substance of the respondents due to its accessibility to the market and home. It is mostly used by young adults and they mostly used 2-3 times per week and some of it depends on their availability and mostly the duration usage was for 6 months and above. It also showed that red eye and hallucination are the most common effects manifested by the respondents after sniffing volatile substance. Thus, most of the respondents' reasons in abusing volatile substances are due to peer pressure. The researchers recommend the respondent to address personal peer pressure. They organised counselling sessions for them to help them acquire coping strategies. This would be done in

coordination with the Department of Social Welfare and Department workers.

For future researcher the physiologic effects of addiction to family members and the type of parenting style of parents of volatile abuser must be studied. Moreover more coping mechanism of volatile substance users must be created and circulated among the affected age goup. It is also recommended to continue this study and evaluate the progress of the implemented program, and identify other substance being abused as this is a perennial problem.

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