Archives of The Medicine and Case Reports
Journal Homepage: https://hmpublisher.com/index.php/AMCR/index
eISSN: 2747-2051

The Correlation between Alcohol Consumption with Anxiety Level on Multiple Drugs User in Sleman

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ARTICLE INFO

Keywords:
Anxiety
Alcohol
Multiple drugs

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All authors have reviewed and approved the final version of the manuscript.
https://doi.org/10.37275/AMCR.v1i2.8

ABSTRACT

Since 2013, data showed alcohol consumption in Indonesia increased from 3% to 3.3%, and 0.8% of the population consumes alcohol over the limit (Riskesdas 2018). Consuming alcohol over the limit not only impacts someone physically but also mentally. One of the mental impacts of alcohol consumption is anxiety. If the anxiety is not treated properly, it can lead a patient to consume more alcohol and, moreover, develop an alcohol addiction. To examine alcohol consumption levels and their correlation to anxiety levels. This study is analytical research with a quantitative cross-sectional survey design. Sampling techniques were done by consecutive sampling with the AUDIT questionnaire survey to measure alcohol consumption level and the T-MAS questionnaire survey to measure anxiety level of respondents. The research sample consists of 30 multiple drug user respondents. We got a 0.569 p-value score with Pearson Chi-Square analysis, which can be interpreted to mean that there is no correlation between alcohol consumption and anxiety level. Patients with alcohol abuse mostly come from low-to-average academic groups, a total of 29 people, and not married groups, a total of 18. There is no correlation between alcohol consumption and anxiety levels. The respondent's anxiety level is influenced by his or her academic grade and marital status.

1. Introduction

Drinking alcohol is associated with the risk of health problems such as mental and behavioral disorders, including alcohol dependence (WHO, 2018). Indonesia is a country with a low alcohol consumption of 0.8 liters per capita (Merlizza, 2018). It should be noted, however, that unrecorded alcohol consumption in Indonesia is up to five times the consumption of recorded or legal alcohol. Consumption of illegal alcohol also has more dangerous side effects than legal alcohol.

The reasons and consequences for someone consuming excess alcohol are closely related to mental health. Mental health problems are not only caused by consuming excess alcohol, but also can cause a person to consume excess alcohol (Smith and Book, 2010). The prevalence of alcohol dependence among persons with psychiatric disorders is almost twice that of the general population. People with severe and chronic mental illness such as schizophrenia are at least three times more likely to be alcohol dependent than the general population (Deborah, 2006).

At first, alcohol consumption creates a feeling of relaxation, calm, and relaxation which is caused by chemical changes in brain nerve cells in response to alcohol. Moderate alcohol consumption is associated with inhibition, feelings of self-confidence, and reduced social anxiety. However, when more alcohol enters the bloodstream, the areas of the brain associated with emotions are affected causing excessive emotional

states such as anger, aggressiveness, depression and anxiety. The greater the amount of alcohol consumed, the greater and more dangerous the effect on anxiety (Meredith, 2019). Anxiety is a mental health disorder that can be caused by prolonged alcohol consumption.

Until now, there are not many studies looking for a relationship between the level of alcohol consumption and anxiety. In fact, the negative impact caused by alcohol consumption is quite significant on physical and mental health. This study aims to determine the relationship between the level of alcohol consumption and the level of anxiety in patients who use mutipel substances in Sleman, Yogyakarta.

2. Methods

This research is a non-experimental study with a cross -sectional design. Data collection was carried out in June - July 2020, involving patients with a history of alcohol consumption who went to a private psychiatric practice in Sleman Regency, Yogyakarta. This study aims to determine the relationship between the level of anxiety and alcohol consumption in patients using multiple substances by using the AUDIT (Alcohol Use Disorder Identification Test) questionnaire for alcohol use and the T-MAS (Taylor Manifest Anxiety Scale) questionnaire to measure anxiety levels. Ethical Clearance in the study is listed as No. Ref: KE / FK / 0642 / EC / 2020 dated 09 June 2020.

The AUDIT questionnaire consists of 10 questions, each of which has a score of 1 to 4. The results of this questionnaire have four levels of alcohol consumption, namely low, medium, high and very high consumption. The Indonesian version of AUDIT is valid (Pearsons product moment r = 0.559-0.795; p <0.001) and reliable (Cronbachs alpha = 0.859). The AUDIT questionnaire is issued by WHO. This questionnaire in Indonesian has been validated externally and internally by Yulianto. The TMAS questionnaire consists of 50 questions that have a yes or no choice. The validity and reliability test of the T-MAS instrument is known to have 90% sensitivity, 95% specificity, 94.7% PPV, 90.4% NPV, 92.5% effectiveness, 0.85% Yauden index and r = 0.86%. It can be concluded that T-MAS is a valid and reliable anxiety diagnosis tool according to the DSM III-R. Validation was carried out by Wicaksono 1992.

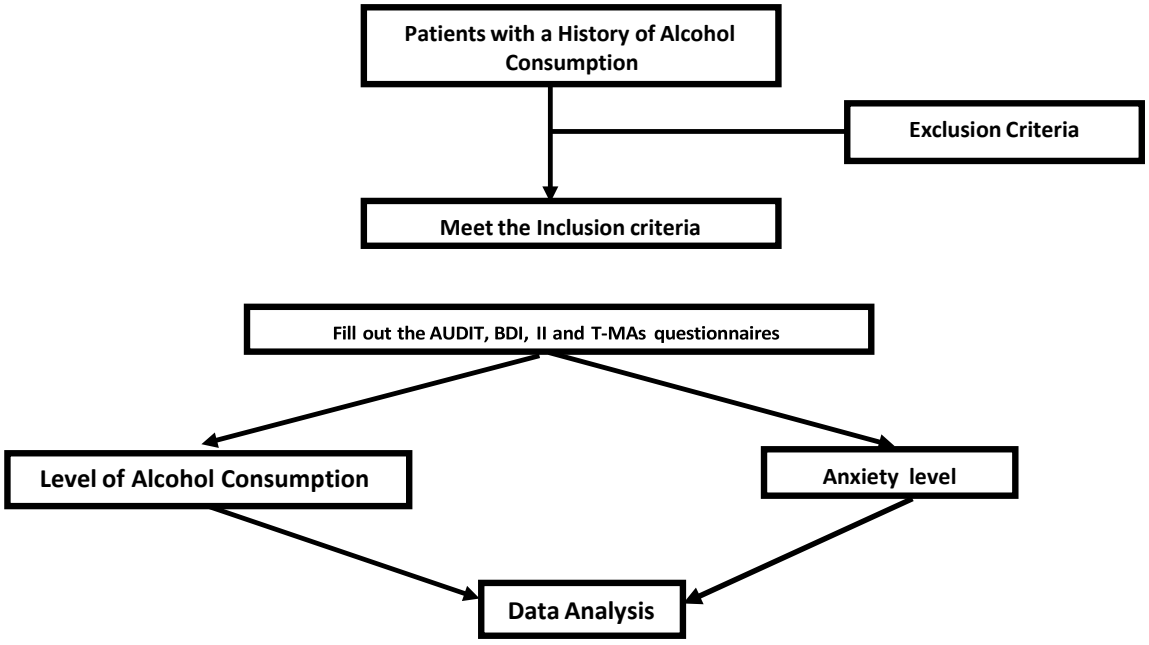
The research subjects were part of the population that met the inclusion criteria and did not include the exclusion criteria. The affordable population in this study were all patients with a history of alcohol consumption. The inclusion criteria of subjects in this study were aged 17-70 years, embracing religion or belief according to the provisions of the Pancasila and the 1945 Constitution of the Republic of Indonesia, namely Islam, Catholic Christianity, Protestantism, Hinduism, Buddhism or Confucianism, being able to read and speak Indonesian, experiencing benzodiazepine dependence on the basis of diagnosis from a psychiatrist and written in the medical record, there is a history of consuming alcohol in the past for at least 4 weeks, the frequency of drinking alcohol at least once a week, willing to sign an agreement to be a research respondent. The exclusion criteria of the subjects in this study were suffering from psychotic disorders (schizophrenia), suffering from organic disorders such as delirium, epilepsy, suffering from mental retardation, suffering from cognitive disorders such as dementia, experiencing physical disorders that could interfere with understanding of the test, not completing filling out the instruments completely.

The number of samples required based on the formula is 30 respondents, this number is considered sufficient to represent the patient population using multiple substances in Sleman, Yogyakarta. The variables in the study consisted of independent variables in the form of alcohol consumption levels and the dependent variable in the form of anxiety levels.

In this study, analysis was carried out using univariate and bivariate techniques. Univariate analysis to see the demographic characteristics of research subjects, presented in the form of distribution and frequency tables. Bivariate analysis to determine the correlation between the independent variable and the dependent variable, with a nominal scale using the

chi square test, analysis using SPSS version 21.

Figure 1. Research flow



3. Results

Demographic characteristics of respondents

Total obtained 30 respondents consisting of 2 women (7%) and 28 men (93%). The number of samples was dominated by a moderate education level or equivalent to high school / equivalent, namely 23 people (76.7%), while the sample with a low level of education was 6 people (19.9%), and a high education level or equivalent to a diploma / baccalaureate was 1 people (3.3%).

Univariate analysis

Describe the distribution of research variables.

Bivariate analysis

To determine the comorbidity of alcoholic patients who experience anxiety.

Bivariate analysis used the chi square statistical test with a significant level of 0.05 (α = 5%) and the Pearson Chi Square test because the relationship table used had more than 2 rows and 2 columns. Pearson Chi Square test resulted in a P value of 0.569. This value is greater than the real level value (0.05%) which indicates the acceptance of H0 or there is no relationship between the level of alcohol consumption and the level of anxiety. Differences in sample characteristics, environment and norms prevailing in society make the results of this study different from previous studies. In addition, the existence of a negative paradigm about alcohol and the public's ignorance of the alcohol content in the drinks consumed makes people less honest in providing information about the history of alcohol consumption can also cause the results of this study to differ from the results of previous studies.

Table 1. Demographic characteristics

Characteristics	Total	Percentage
Age Range		
17 – 25	14	46
26 – 35	11	36
36 – 45	5	16
> 45	0	0
Gender		
Male	28	93
Female	2	7
Level of Education		
Low	6	20
Moderate	23	76
High	1	3
Marital Status		
Married	11	36
Unmarried	19	63
Level of alcohol consumption		
Abstainer	3	10
Low risk drinker	9	30
High risk drinker	13	43
Probale alcohol dependent	5	16

(Source: Primary Data)

Table 2. Sample frequency distribution based on marital status

Status		Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	**Unmarried**	18	60.0	60.0	60.0
	Married	11	36.7	36.7	96.7
	Divorced	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 3. Distribution of sample frequency based on education level

Status	Education Level	Frequency	Percentage	Valid Percent	Cumulative Percent
Valid	Did not complete elementary school / equal	1	3.3	3.3	3.3
	Graduated From Elementary School / Equal	1	3.3	3.3	6.7
	Junior High School / equal	4	13.3	13.3	20.0
	Senior High School / equal	23	76.7	76.7	96.7
	Academy / diploma III / S.1	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Table 4. Cross tabulation of addiction * anxiety levels

Status			Anxiety		
			Not Anxious	Anxious	Total
Addiction	Abstainers	Count	0	3	3
	Low risk drinkers	Count	3	6	9
	High risk drinkers	Count	5	8	13
	Probable alcohol dependence	Count	1	4	5
Total		Count	9	21	30
		% within anxiety	30	70	100

Table 5. Relationship between alcohol consumption level and anxiety level

	Value	df	Asymp Sig. (2-sided)
Person Chi-Square	2.015*	3	0.569
Likelihood Ratio	2.867	3	0.413
Linear – by - linear Association	0.203	1	0.652
N of Valid Cases	30		

4. Discussion

Pearson Chi Square test results that are more than the real level value indicates that there is no relationship between the level of alcohol consumption and the level of anxiety. This result is not in accordance with the research of McCaul et al. (2017) who with a multivariate analysis showed that a higher ASI-3 (Anxiety Sensitivity Index) score was associated with a higher drinking frequency, but on the other hand a higher BAI (Beck Anxiety Index) score was associated with lower drinking frequency and reduced drinking. drinking / drinking day. The results of this study are also inconsistent with Tembo's research in 2017 which states that with multiple logistic regression analysis it shows that respondents who consume alcohol at a dangerous level are 1.2 times more likely to report psychological distress than those who have a lower level of alcohol consumption (aOR) 1.2, 95% CI: 1.1-1.5). However, the results of this study are in accordance with the results of research conducted by Winata in 2017, namely there is no relationship between the level of alcohol consumption and the incidence of anxiety disorders in the psychiatric polyclinic of Dr. Pirngadi Hospital, Medan City. Similar results are expected to occur because there are similarities in sample characteristics and values that apply in the community because Winata's research (2017) was also conducted in Indonesia. Research conducted by Costa et al in 2013 also showed that lifetime alcohol use was not significantly associated with SCARED (Child Anxiety-Related Emotional Disorders) score (p = 0.681).

In this study, respondents admitted that they started consuming alcohol due to environmental factors, then felt energized after consuming alcohol and felt weak and discouraged when they did not consume alcohol. Our respondents stated that alcohol consumption was carried out solely because they felt the need to avoid anxiety, added energy and concentration to do daily work. This is due to alcohol's effect on the brain's neurotransmitter system involved in rewarding pathways in the nucleus accumbens in the amygdala. Alcohol can increase GABA activity by increasing the release of GABA on presynaptic neurons and facilitating the activity of GABA receptors of the GABAA subtype on postsynaptic neurons. As a result, these neurons release dopamine in the nucleus accumbens and activate the rewarding pathway in the brain, causing feelings of excitement. The results of this study are not in line with the results of Eko Teguh's (2017) study which links alcohol consumption with prestige or prestigious social patterns and lifestyles.

This study also shows that the level of education affects the level of alcohol consumption. There were 29 patients diagnosed with alcohol use disorders from the low and middle education groups, while only 1 patient diagnosed with alcohol use disorders from the higher education group. This is in accordance with Murakami and Hashimoto (2019) who have research with the results that lower education levels (middle school or lower) are significantly associated with an increased risk of drinking heavy alcohol.

In addition, this study has the results of demographic data of patients with a diagnosis of alcohol use disorders, 18 people have unmarried marital status, 1 person is divorced, while 11 others are married. This is in line with the research of Prescott and Kendler which states that there is a consistent relationship with the decrease in alcohol consumption that accompanies the transition from single to first

marriage. However, the results of this study also show that the effect of marriage on alcohol consumption is complex and cannot be limited to the simple view that marriage alone causes a decrease in alcohol consumption. There is also research by Liang and Chikritzhs that shows that adults and middle -aged people who have never been married, divorced or separated tend to consume alcohol at levels associated with increased long-term risk or chronic consumption.

Determinant factors in the form of norms prevailing in Indonesia also affect the level of alcohol consumption of respondents. Social norms, both family values and societal values, often influence the problem of alcohol abuse. These social norms have an ethical dimension with non-binding consequences, and are often used as a control mechanism for individual behavior in social life. The role of the family is very dominant in shaping individual behavior related to alcohol abuse problems. Meanwhile in some of our societies, alcoholic behavior is still tolerated to a certain extent. Therefore, sample responses to studies also vary. There are samples who feel ashamed and there are also samples who are normal, this is thought to occur because of differences in family values and community values in the sample neighborhood.

This study has similarities and differences in results with previous studies. This variation is expected to occur due to differences in the conditions of the respondents and the research background. Respondents of this study were patients who had been diagnosed with alcohol use disorders (AUD) and anxiety then came and received intervention at private psychiatric clinics, while Mc Caul's study respondents were people who were currently heavy drinkers with AUD and did not seek treatment and Tembo study respondents were randomly selected university students.

The varied backgrounds of respondents make the respondents' understanding of the questionnaire varied, so the researcher must ensure that each respondent has a precise and uniform understanding. In addition, there are also research limitations that make the results of the questionnaire have the possibility to be confused and experience differences with previous studies. The limitation we have is that we cannot conduct face-to-face research so that researchers cannot get maximum interaction with respondents.

5. Conclusion

There is no relationship between the level of alcohol consumption and the level of anxiety. The level of education and marital status are determinants of the level of alcohol consumption of the respondents. Conditions and values prevailing in the sample environment led to variations in the results of the relationship between the level of alcohol consumption and the level of anxiety in the respondents of this study.

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