The Effect of Drinking Style on Alcohol-related Harm and Readiness to Change among the Indigenous Communities of Sabah

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

Original Research Article

ABSTRACT

Aims: This study aims to examine the effect of drinking style on alcohol-related harm and readiness to change among the indigenous communities of Sabah.
Study Design: This study applied quantitative research design using a survey method.
Place and Duration of Study: Study was conducted in the West Coast Division of Sabah, between Sept 2018 to Dec 2018.
Methodology: A total of 56 villagers between age 18 to 56 years old (29 female, 27 male) have participated in this study. Purposive sampling by using Alcohol Use Identification Test (AUDIT) was applied to select hazardous and harmful drinkers among the indigenous communities of Sabah Data were analyzed by using IBMSPSS version 22.0.
Results: The study found a positive and significant effect of drinking style towards alcohol-related harm and readiness to change. The willingness and ability to make changes in their current behaviour to the new behaviour of drinking indicate participants who are at the hazardous and harmful drinking styles were reported experienced negative alcohol consequences. At the same time also, participants have shown their willingness and ability to make changes in their current

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behaviour to the new behaviour of drinking. It can explain the positive relation between alcohol-related harm and readiness among the participants. On the other hand, the more they experience the adverse effects of alcohol, the more they want to make a change in their drinking style.

Conclusion: These findings are significant to provide direction for the next action plan for intervention purposes aims to reduce the alcohol-related harm among the indigenous communities of Sabah.

1. INTRODUCTION

Alcohol is a psychoactive substance with dependence-producing properties. Ethanol or ethyl alcohol is the ingredient found in beer, wine, and liquor that causes drunkenness. The consumption of alcohol has been attributed to more than 200 diseases and injury conditions [1,2]. Alcohol consumption directly or indirectly causes a large number of communicable and non-communicable diseases, many social severe ills including violence to women and children, bodily injury resulting from road traffic accidents and even harm to the unborn fetus through fetal alcohol syndrome [1]. Heavy episodic drinking is the primary cause of alcohol-related harm, mainly due to cardiovascular disease and accidents. The effects of alcohol depend on the volume consumed the pattern of drinking and the type of alcohol drinking [3]. Alcohol has effects on every organ in the body, but these effects depend on the Blood Alcohol Concentration (BAC) over time [4]. BAC is the amount of alcohol in the bloodstream, measured in percentages. Having a BAC of 0.10 per cent means that a person has 1-part alcohol per 1,000 parts blood in the body.

Alcohol is the third-largest risk factor for burden disease in the world [1]. Malaysia is listed as the tenth-largest consumer of alcohol in the world [5]. Alcohol consumption considered to be part of the culture, and it's a problem among some of the indigenous communities of Sabah and Sarawak with the highest prevalence of risky drinking in Malaysia. Mutalip et al. [6] were reported that Sabah is the third leading for the highest prevalence of hazardous drinking in Malaysia after Kuala Lumpur and Sarawak [6]. Especially for the indigenous communities of Sabah, alcohol is considered a part of their culture and a way of maintaining it. Alcohol has been served in many festivals in Sabah such as New Year, Christmas, Harvest festival or known as Kaamatan, birthday celebration, wedding, etc. Alcohol and the consumption of alcohol in Sabah peaks during the Kaamatan month (yearly in May) among Kadazandusun communities [7]. It has been practiced by the indigenous communities of Sabah to refresh energy after tiredness, release stress, *gotong-royong*, enhancing joyfulness of ceremony, as well as welcoming people [8]. Even more, the price of alcohol is controlled by the government of Sabah during the festive season, so traders cannot take advantage and profit by raising prices [9].

Jamali et al. [10] stated that these communities consume alcohol as early as 15 years with traditional home-brewed alcohol such as *Tapai* and *Montoku* and later venture into drinking "western-style" beverages such as beer and spirits. There are several types of local drinks in Sabah (i.e. *Montoku, Tapai, Sikat, Lihing, Kinopi,* and *Siopon*) with different percentages of alcohol. The content of alcohol in a drink that consumed will influence the BAC in the body of an individual which then contributes to the risk of alcohol-related consequences. The risk is including the physical and psychological effects of the drinkers. The negative physical and psychological effects of consuming alcohol depend on three factors: the volume consumed, the pattern of drinking and the type of alcohol drinking (WHO, 2005).

There are five patterns of alcohol consumption, namely no problem, low risk, hazardous, harmful and dependence [11]. It is also known as a drinking style, which can be identified by scores on the Alcohol Use Identification Test (AUDIT). The AUDIT comprises a set of important questions for the screening stage to determine the drinking styles of alcohol consumption. The AUDIT score can classify the negative consequences of alcohol use, and it can be used for appropriate intervention. Leaflet education about drinking is suitable for those who are at no problem (0 scores on AUDIT) and low risk (1-7 score on AUDIT) drinking styles. Simple advice and brief education about alcohol consumption are suitable for hazardous (8-15 score on

AUDIT) drinking style. While harmful (16-19 score on AUDIT) is recommended for brief counselling. and continued monitoring to change drinking behaviour, health education, skill-building, and practical suggestions. However, the dependent drinker is required withdrawal program to enable the drinker to stop drinking, and ongoing interventions to remain abstinent (e.g. counselling, pharmacotherapy, self-help programs).

Knowing how much alcohol constitutes a 'standard drink' can help determine how much is being drunk and understand the risks. The standard drink can be defined as content in the drink that can measure how much alcohol is being consumed (WHO, 2014). There are four categories of drinks and per cent of alcohol in the standard drink [8] that can be seen in Fig. 1. Beer with 5% of alcohol content is the first category which consists of 330ml, or one can of beer is count as one standard drink. The second category is content about 12% of alcohol or 140ml of Wine, Bahar, Stout, *Kinopi* or *Siopon*. The third types of standard dink are *Montoku*,

Sikat and hard *lihing*, which contains about 25-30% of alcohol or 70 ml of these drinks. The fourth category of a standard drink is content about 40-45% of alcohol or 40ml of Whisky, Brandy, Vodka and some traditional beverages of Sabah (hard *Montoku* and *Sikat*).

Besides, the drinking patterns can also be used to explain the risk of alcohol consumption of an individual, which then could lead to the next action aims to reduce the risk. The various culture of drinking becomes challenges in getting people to drink with sensible. Previous studies reported that consuming alcohol brings some benefits such as enhancing the joyfulness of ceremonies, helping to celebrate and socialize [12,13] Jamali et al., 2009). It is also practising among the indigenous culture of Sabah, which alcohol has been used to welcome people as well as enjoying ceremonies [14]. However, consuming alcohol at high risk is never being part of these cultures; instead, it can destroy the aims of these cultures [14]. Most people acknowledge that the misuse of alcohol causes

Fig. 1. One standard drink
Source: [8]

additional burdens that go beyond health [15,2]. Even though alcohol abuse can cause significant long-term and short-term psychological problems for the abuser and their family and community, it can have a very temporary positive impact on our moods and emotions. As people start to drink, they tend to feel peaceful, happy, confident or even brave. Nonetheless, alcohol misuse incites harmful bodily side effects, and in the long run, worsens the very symptoms that the abuser sought to remedy by using alcohol (NAMI, 2013).

Making a change in behaviour requires individuals to recognize the stage in the cycle of change to set achievable goals and action steps and to determine the best strategies of behaviour change [16]. Prochaska and DiClemente [17] were introduced the five stages of change that happens gradually over time. The stages started with the person progression from unwilling to make a change (pre-contemplation), to considering a change (contemplation), to deciding and preparing to make a change (preparation), taking action on the new behaviour (action), and maintaining the behaviour over time (maintain). It is also essential to understand the negative effect of current behaviour to make a change. In this study, knowing the negative consequences of drinking style help to understand the risk of drinking. Besides, knowing the intention to make a change in the drinking style would also provide direction for the next action plan. Therefore, this study aims to examine the effect of drinking style towards alcohol-related harm and readiness to change among the indigenous communities of Sabah.

2. METHODOLOGY

2.1 Participants and Location

Purposive sampling was applied to select hazardous and harmful drinkers among the indigenous communities of Sabah. As recommended by Babor et al. [11], hazardous and harmful drinkers are suggested for brief education and brief intervention to reduce alcohol-related harm. By knowing the impact of drinking style towards alcohol-related harm would help to develop an appropriate intervention for further study. Screening by using AUDIT was done to select participants who scored between 8 to 15 (hazardous drinker) and 16 to 19 (harmful drinker) on AUDIT. The data was collected in one community meeting during the 'Leaders United Event of indigenous people of Sabah' at PACOS-Trust located in Penampang, Sabah. PACOS-Trust stands for Partnership of Community Organization. PACOS-Trust is a community-based organization dedicated to supporting indigenous communities in Sabah. A total of 171 indigenous communities of Sabah were screened which represented the West Coast Division of Sabah. However, only 56 villagers which those who are at hazardous and harmful drinkers were eligible and agreed to participate in this study.

2.2 Materials and Procedures

This study used the Alcohol Use Identification Test (AUDIT) with ten items to select participants and identify the drinking style of participants. The Brief Young Adult Alcohol Consequences Questionnaire – 30-day version (BYAACQ-30) [18] with 24 items was used to measure alcohol-related problems. Besides, the Stage of Change Readiness and Treatment Eagerness Scale (SOCRATES) [19] with 24 items was used to measure an individual's readiness to change behaviour specific to problematic alcohol consumption. This study started with screening to identify the drinking style and to select participants. Those who are eligible and agreed to participate were then asked to complete the consent form and answer a set of questionnaires. A set of the questionnaire consists of demographic questions, BYAACQ-30 and SOCRATES. The internal consistency of the BYAACQ-30 as measured using Cronbach's alpha was .862 while SOCRATES was .900.

2.3 Data Analysis

Data were analyzed by using IBMSPSS.22. Statistic descriptive was used to measure the demographics of participants. While linear regression was used to examine the effect of drinking style towards alcohol-related harm of the indigenous communities of Sabah.

3. RESULTS AND DISCUSSION

3.1 Demographics of Participants

Mostly, participants were Kadazandusun with 92.31%, and only 7.69% were Bajau. 58.46% were females, and 41.54% were males, where 78.46% were Christian, and 21.53% were Muslim. As for the job sector, 63.08% of participants were working as self-employed, 27.69% were working with private companies, and only 9.23% were working with governments.

3.2 The Effect of Drinking Style on Alcohol-related Harm and Readiness to Change among the Indigenous Communities of Sabah

The result of the regression indicated the drinking style predictor explained 27.0% of the variance in the alcohol-related harm (R2=.27, F(1,54)=19.94, p<.001). It was found that the drinking style significantly predicted alcohol-related harm (β=.519, P<.001), (t=4.466). This study found a significant positive effect of drinking style towards alcohol-related harm in the indigenous communities of Sabah. This is explaining people at hazardous and harmful drinking styles were experienced alcohol-related negative consequences such as social-interpersonal consequences, impaired control, self-perception, self-care, risk behaviour, academic/occupational consequences, excessive drinking, and psychological dependence.

The analysis was also done to examine the effect of drinking style readiness to change of participants. It was found that the drinking style contributed 16.0% of the variance in the readiness to change (R2 =.16, F(1,54)=10.54, p<.005). The result showed that the drinking style significantly predicted readiness to change of participants (β=.400, p<005), (t=3.25). This study reported a significant positive effect of the drinking style towards readiness to change among the indigenous communities of Sabah. It is explaining that the individuals at hazardous and harmful drinking styles were reported with the intention to make a change in their drinking style. Participants were shown their willingness and ability to make changes in their current behaviour to the new behaviour of drinking by being more active, engaged willingness and ability to adopt a new practice of behaviour.

The significant positive effect of drinking style towards alcohol-related harm explained the individual who was at the hazardous and harmful drinking styles were reported experienced negative alcohol consequences. This study confirmed the previous findings stated that alcohol use increased the risk factor for health [20,11]. For example, drinking style of participant caused them to have unexpected behaviours when being drunk. Saying or doing embarrassing things, gotten into sexual situations that later regretted, woken up in an unexpected place, spent too much time on drinking as well as created problems (between self and my boyfriend/ girlfriend/spouse, parents, or other near relatives). It has also been mention by previous studies that hazardous and heavy alcohol consumption is correlated to many health [21,22] and social problems [23].

As found in this study, hazardous and harmful drinking styles also caused participants to health problems such as loss of energy or tiredness, headache and sick stomach, low performance at work or school, weakened their memory and have changed their physical appearance. Being intoxicated also sometimes caused participants to irrational behaviour, which leads them to become very rude, obnoxious or insulting after drinking. Similar findings were also reported that heavy alcohol consumption leads to accidents, criminal, dependence that contributes to serious health consequences [24] Rehm, et al. [2] and increases the chances of hurting oneself or others due to accidents, violence, and suicide [25,26,27,28]. Moreover, high-risk drinking style hikes up the number of people coming late to work and leaving early, having discipline problems, loss or low productivity, higher turnover, theft or other crime, poor relations between co-workers, weak cooperation at work, which then reduces the company productivity and company morale as well [29,30].

Hazardous and harmful drinking is the drinking style that explains the risk of alcohol consumption of someone. The drinking styles can be described as a quantity or pattern of alcohol consumption that places individuals at risk for adverse health circumstances [31]. In Sabah, alcohol has become a source of happiness and unhappiness in their family and community. Shoesmith et al. [32] were explored the impact of alcohol use on the indigenous communities' wellbeing in Sabah. She found that alcohol has both positive and negative consequences in the community and their wellbeing. For instance, alcohol consumption at a low-risk level is used to improve social connectedness and social activities which make them socialize more effectively [32]. However, drinking at high risk (such as hazardous, harmful and dependent patterns) contributed to fights, family conflicts, domestic violence and even more than that caused to break up the family. Besides, it was also reported that alcohol caused too many worries about the family's future, safety and economic security among these communities.

This study also found the drinking style effected the readiness to change participants among the indigenous communities of Sabah. On the other hand, participants have shown their action taken of moving to a new behaviour of drinking to reduce the negative consequences of alcohol. It also explains the participants' willingness and ability to adopt a new practice of behaviour that can be used for action to be taken for intervention purposes. According to Prochaska [33], knowing participants' readiness to change is vital to provide direction for the therapist to lead patients from one stage to the next step of behaviour change. Motivation is considered a critical factor in alcohol use disorder treatment by influencing patients to seek, comply and complete treatment for long-term success in their drinking [34]. Enhancing motivation in a patient's readiness is used to seek and engage with treatment interventions. Making people change requires individuals to understand the harmful effects of their current behaviour. Eagerness to change or willingness of an individual to adapt new behaviour could predict alcohol intake and reported have a strong relationship with each other [35].

4. CONCLUSION AND RECOMMENDA-TION

This study has shown the significant positive effect of drinking styles towards alcohol-related harm which explains the high-risk of alcohol consumption caused to the negative alcohol consequences. The drinking styles of the indigenous communities of Sabah were not only impacted on their health but also caused to the social and economic problems. The finding was also reported the significant positive effect of drinking styles on the readiness to change among these communities. These findings are vital to providing direction for the next action plan for intervention purposes to reduce alcohol-related harm among the indigenous communities of Sabah. As alcohol is claimed to be part and a way of maintaining the culture of these communities, considering that culture to be included in the intervention program is essential. Therefore, this study suggests that the alcohol harm reduction approach is suitable for these communities, where, they can reduce the negative consequences of alcohol and at the same time still maintaining their culture of drinking.

Besides, this study also recommends the importance of motivation in the intervention as participants have shown their actions taken of changing their drinking style. It is because motivation plays a vital role in influencing patients to seek, comply and complete treatment for long-term success in their drinking. This study also supported the suggestion by Babor et al. [11] that brief intervention is recommended for participants at the hazardous and harmful styles of drinking. The success brief intervention to improve motivation for change should come along with brief counselling, education about drinking and continue monitoring to help participant success in their changing process.

CONSENT

As per international standard or university standard written participant consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

This study was given ethical approval by the Ethics Committee at Universiti Malaysia Sabah with ethic approval code JKEtika3/17(3).

ACKNOWLEDGEMENT

COMPETING INTERESTS

Author has declared that no competing interests exist.

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