

# *The Influence of Consideration of Future Consequences and Self-Control on Sensation Seeking among Alcohol Drinker in Medan*

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**Abstract** - Alcohol is one of the addictive substances that has impact on the physical, psychoneurological, and social. Alcohol also becomes a trend and being lifestyle for many reasons. There are several factors who consume alcohol and could be motivated by sensation seeking. Sensation seeking is related with consideration of future consequences (CFC) and self-control in alcohol consumption. This study aims to determine the effect of CFC and self-control on sensation seeking in alcohol consumption. This study used accidental sampling technique and involved 221 individuals who consume alcohol in early adults (18 -40 years) who consumed alcohol in last three months. The measuring tools used three scales, there are sensation seeking scale, CFC scale, and the self-control scale. The analysis technique is multiple regression analysis. The results showed that (1) CFC had a significant impact on sensation seeking, (2) self-control had no significant impact on sensation seeking, (3) CFC and self-control had an effect on sensation seeking in alcohol consumers in Medan. The implication of this study is CFC and self-control there are factors that influence sensation seeking, although self-control independently does not have a significant impact on sensation seeking in consuming alcohol in Medan.

**Keywords** – sensation seeking, consideration of future consequences, self-control, alcohol

## I. INTRODUCTION

Alcohol has been known since ancient times. Nowadays, alcohol become a trend and lifestyle among teenagers to adults (Pratama, 2013). McGovern (in WHO, 2014) also states that alcohol has been part of culture for thousands of years in both developed and developing countries. In Indonesia itself, drinking alcohol has actually become a culture that has also existed in society for a long time. In fact, its consumption is often misused, although when compared to Western countries, Indonesia is still relatively low (Ariesta, 2014).

Data from the Global Health Observatory (GHO) and the Global Information System on Alcohol & Health (GISAH) explain that the average alcohol consumption worldwide in 2018 was 6.2 liters of pure alcohol per day. The alcohol is consumed by individuals over the age of 15 years (WHO, 2018). The Global Health Observatory (GHO) and the Global Information System on Alcohol & Health (GISAH) also explain further that alcohol use is the cause of 230 types of diseases, contributes to the death rate of up to 3 million people each year, and worsens the well-being and health of those around alcohol drinkers.

The use of alcohol as a lifestyle is one of the causes of disruption of physical and mental health in adult individuals (Papalia, Old, & Feldman, 2011). Leigh (in Papalia, Old, & Feldman, 2011) explains that alcohol use is associated with risks that affect others such as traffic accidents, crime, and HIV infection. In addition, the habit of consuming alcohol also causes

the emergence of maladaptive behaviors, such as loss of reality values, getting into fights, and inhibiting social functions (Emqi, 2013). Physically, long-term alcohol use can also damage the brain, liver, pancreas, heart and immune system (Hapsari 2007). Data from the Indonesian Ministry of Health (2014) shows that there are 1,211 people who experience mental and behavioral disorders due to alcohol use in Indonesia. Data from the Riset Kesehatan Dasar (Riskesdas) report in 2018 also noted that 3% of the total population in Indonesia had a history of alcohol consumption. Although Riskesdas has recorded this figure, the phenomenon of Narcotics, Psychotropics and other Addictive Substances (including alcoholic beverages in them) in Indonesia is like an iceberg which means that it appears on the surface is smaller than the actual incident which is very large and wide. (Hawari, 2004; Yusuf, 2012; Saputra, Dundu, & Kaunang, 2014).

One of the provinces in Indonesia that has a culture of consuming alcohol is North Sumatra. Based on data from Riskesdas (2007) the prevalence of alcohol consumption in North Sumatra is 6.1%. This level belongs to the seven national provinces that have the highest prevalence of alcohol consumption (Riskesdas, 2007). The high rate of alcohol consumption in North Sumatra is also due to the culture and habits of the people (Sihombing, 2018). In addition, the people of North Sumatra can easily reach alcoholic beverages in places such as cafes and nightclubs (Nainggolan, 2012).

The most dominant level of alcohol consumption is in the adult age group. They engage in binge drinking at least once a month (Manthey, Shield, Rylett, Hasan, Probst, & Rehm, 2019). Based on these studies, the age of individuals who consume alcohol is in the early adult developmental age range. Hurlock (2009) set the age range of early adulthood starting from the age of 18 years to 40 years. Early adulthood is a transition period from adolescence to enter a more mature period, both physically, intellectually and socially (Hurlock, 2009).

One of the reasons behind a person consuming alcohol in various places such as cafes or nightclubs is the desire to try new things and even the habit of consuming alcohol with the aim of sensation seeking (Robbins & Bryan, 2004; Banerjee & Greene, 2009; Malmberg et al., 2010; Doran et al., 2011; Roman et al., 2014). Sensation seeking is a trait that is defined as the need to seek different, new, and complex sensations and experiences, as well as a willingness to take risks, both physically and socially in order to gain these experiences (Zuckerman, 1979). Nazim, Sham, & Hamjah (2013) mention that sensation seeking tends to occur to most teenagers and early adults, some of which are outside of socio-cultural norms, look quite dangerous, risky, and violate the law.

Yanovitzky (2006) has conducted a study that examined the effect of friends mediating sensation seeking, personality traits, on alcohol use among college students. The results show that sensation seeking affects the use of alcohol in individuals, and peers greatly influence the use of alcohol to interact in their social environment in the form of sensation seeking. The same results were also obtained from the research of Glazer, Smith, Atkin, Hamel (2010). In the study group in early adulthood, it was found that sensation seeking was not associated with perceived moderate drinking norms, but sensation seeking and social norms had a significant effect on alcohol consumption.

The sensation seeking nature of individuals who consume alcohol can actually be influenced by self-control (Lindgren, Neighbors, Westgate, & Salemin, 2014). Santrock (2007) explains that self-control has an influence on decision making and controlling behavior in the desired direction. Individuals with high self-control are very concerned about appropriate ways to behave in various situations so as not to fall into alcohol consumption behavior.

Self-control in making decisions about risky behavior (alcohol consumption) is related to the impact that will be obtained in the future. The individual's low self-control in alcohol consumption is related to the failure to consider future consequences (CFC) and to think more about the here and now (Joireman, Strathman, & Balliet, 2006).

The results of research by Joireman, Shaffer, Balliet, and Strathman (2012) also state that individuals who have high CFC values are involved in a healthy lifestyle. On the other hand, individuals with low CFC values lead an unhealthy lifestyle, one of which is consuming alcohol.

Joireman, Strathman, & Balliet (2006) further explained that individuals who have low CFC values will tend to consume alcohol compared to those who have high CFC values, although understanding and knowledge of the risks to alcohol are the same.

## **II. STATEMENT OF THE PROBLEM**

This study wants to provide an overview of how big the influence of consideration of future consequences (CFC) & self-control on sensation seeking on alcohol consumers in Medan City.

## **III. LITERATURE OF VIEW**

### **1. Sensation Seeking**

Zuckerman (1979) describes sensation seeking as a trait that is defined as the need to seek sensations and experiences that are different, new (novel), and complex, and a willingness to take risks both physically and socially to get that experience.

Zuckerman (2007) divides the four dimensions of sensation seeking, including:

#### **a. Experience seeking**

This dimension describes the search for new sensations and experiences through the mind and the senses (music, art, travel) and through a lifestyle that generally tends to go against existing rules or norms with like-minded friends.

#### **b. Boredom susceptibility**

This dimension explains the individual's dislike of all kinds of monotonous or boring conditions and the individual will feel restless when faced with these conditions. There is a distaste for people who are boring or uninteresting, even though they are reliable.

#### **c. Thrill and adventure seeking**

This dimension indicates a desire to engage in physical activities that provide unusual sensations and experiences, such as mountain climbing, skydiving, or underwater diving. Some of these activities are considered quite risky, which prevents low-level sensation seeking participants from being involved in them. The sensation in this activity is that there is an attractive reward for high sensation seekers by ignoring the risks of the activity.

#### **d. Disinhibition**

This dimension refers to sensation seeking through other people, such as a hedonistic lifestyle, wild parties, varied sexual activities, and drinking or drinking alcohol. This dimension indicates a desire for experience to find social acceptance.

### **2. Consideration of Future Consequences (CFC)**

Joireman, Shaffer, Balliet, and Strathman (2012) describe consideration of future consequences or CFC as the understanding of someone who thinks current behavior will affect and have an impact on the future. They mention that there are two aspects of CFC, namely:

#### **a. Immediate**

This aspect is closely related to the vulnerability of individuals who are oriented to worldly things and are momentary pleasures. This is contrary to the concern for future considerations so that it focuses on the present. CFC-immediate describes the failure of individual self-control, so it is most likely in the tendency to consume alcohol, smoke, compulsive buying and so on.

#### **b. Future**

This aspect is awareness and concern in considering future consequences based on actions, current individual behavior and responsibility for behavior and actions that have been taken. CFC-Future describes individual self-control so that it is highly likely that individuals will have a tendency to live a healthy lifestyle, invest, protect the environment and so on.

### **3. Self-Control**

Tangney, Baumeister, and Boone (2004) state that self-control is a person's ability to exceed or change the response in oneself as well as to prevent unwanted behavior from appearing as a response to a situation. Tangney et.al (2004) explained that the main component of self-control is an ability to override or change the response in the individual, so that control broadly involves an ability to adapt well. They also explain that there are 5 aspects of self-control, as follows:

#### **a. Self-discipline**

This aspect assesses the individual's self-discipline when doing something. This means that individuals focus on completing a task. Individuals who have self-discipline are able to refrain from other things that can interfere with their concentration.

#### **b. Deliberate/non-impulsive**

This aspect assesses the individual's tendency to take an impulsive action with good consideration, is careful, and is not in a hurry in making decisions or acting.

#### **c. Healthy habits**

This aspect regulates habits or healthy lifestyles for individuals. Individuals who tend to have healthy habits will be able to refuse something that can have a bad impact on him, even though it pleases him. Individuals with healthy habits will prioritize things that have a positive impact on themselves even though the impact is not received directly.

#### **d. Work ethic**

This aspect relates to self-regulation and individual ethics in carrying out daily activities. A person who chooses work ethics will be able to complete his duties without being influenced by things that are outside his duties.

#### **e. Reliability**

This aspect assesses the ability in a person to carry out long-term plans in certain achievements.

## **IV. MATERIAL AND METHOD**

### **1. Sensation Seeking**

Sensation seeking is a trait that is defined as the need to seek sensations and experiences that are different, new, and complex, as well as a willingness to take risks both physically and socially to get that experience. The measurement of this research variable uses a scale compiled by the researcher based on the four dimensions of sensation seeking initiated by Zuckerman, as follows: experience seeking, boredom susceptibility, thrill and adventure seeking and disinhibition.

The sensation seeking score is obtained from the total score on the four dimensions. The higher the score obtained, the higher the sensation seeking. Conversely, the lower the score obtained, the lower the sensation seeking.

### **2. Consideration of Future Consequences**

The measurement of this research variable uses the CFC scale which is based on two aspects, namely future and immediate. Future expresses awareness and concern in considering future consequences based on current individual actions and behavior and is responsible for behavior and actions that have been taken, while immediate is closely related to individual vulnerability which is oriented to worldly things and is momentary pleasure.

The consideration of future consequences score is obtained from the total score on those two aspects. The higher the score obtained, the higher the consideration of future consequences level. Conversely, the lower the score obtained, the lower the level.

### **3. Self-Control**

Self-control is a skill to change or override the response that is in a person, such as regulating unwanted behavior and acting not to do that behavior. The measurement of this variable is carried out using a scale based on five aspects of self-control, namely: self-discipline, deliberate/non-impulsive, healthy habits, work ethics, and reliability.

The self-control score is obtained from the total score on those five aspects. The higher the score obtained, the higher the self-control level. Conversely, the lower the score obtained, the lower the level.

#### 4. Research Hypothesis

The hypothesis of this study is that consideration of future consequences (cfc) and self-control together have a negative effect on sensation seeking for alcohol consumption in Medan City. The higher the consideration of future consequences and self control, the lower the sensation seeking, and vice versa.

### V. RESULT

This study involved 221 early adult individuals who consumed alcohol in Medan city.

#### 1. Normality Test

The normality test is done by looking at the Kolmogorov Smirnov score.

| Variable                             | p-value | Description         |
|--------------------------------------|---------|---------------------|
| Sensation Seeking                    | .200    | Normal Distribution |
| Consideration of Future Consequences | .121    | Normal Distribution |
| Self-Control                         | .200    | Normal Distribution |

The data is declared normally distributed if the significance is greater than 5% or .05. Based on the table above, it can be seen that all research variables have data that are normally distributed (normal conditions: if the probability p value > .05).

#### 2. Linearity Test

The relationship between the independent variable and the dependent variable is said to have a significant linear relationship if the p value is <.05 (Field, 2009).

| Variable                               | f    | p   | Description |
|----------------------------------------|------|-----|-------------|
| Sensation Seeking                      |      |     |             |
| * Consideration of Future Consequences | 4.37 | .03 | Linear      |
|                                        | 4    | 8   |             |
| Sensation Seeking *                    | 3.77 | .03 | Linear      |
| Self Control                           | 5    | 4   |             |

Note: p = probability

#### 3. Autocorrelation Test

The autocorrelation assumption test aims to determine whether in the linear regression model there is a correlation between one error variable and another error variable. From the results of statistical testing, the Durbin-Watson (d) value is 2.045. Data that are said to be free of autocorrelation is if the statistical value of the Durbin-Watson test is between 1 and 3 (Field, 2009). Therefore, it can be said that in this linear regression model there is no autocorrelation.

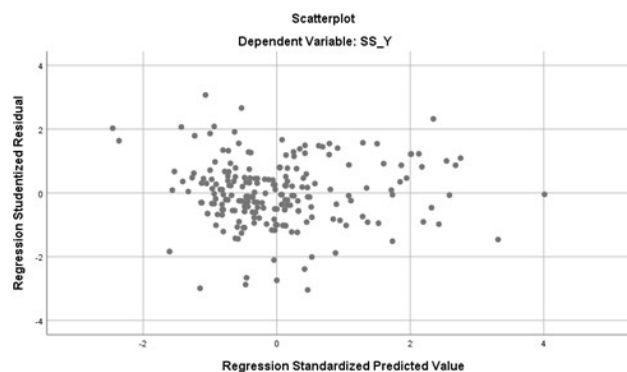
| Variable                                           | Durbin-Watson | Description        |
|----------------------------------------------------|---------------|--------------------|
| Independent:                                       |               |                    |
| consideration of future consequences, self-control | 2.045         | No autocorrelation |
| Dependent: sensation seeking                       |               |                    |

#### 4. Multicollinearity Test

Santoso (2010) states that a regression model is said to have no symptoms of multicollinearity, if the VIF value shown is around number 1 and the tolerance value approaches number 1.

| Variable     | Tolerance | VIF   | Description                      |
|--------------|-----------|-------|----------------------------------|
| CFC          | .999      | 1.001 | Multicollinearity does not occur |
| Self-Control | .999      | 1.001 | Multicollinearity                |

#### 5. Heteroskedasticity Test



From the graph above, it can be seen that the distribution of points on the graph is spread randomly (no systematic pattern) around 0, so it can be concluded that there is no symptom of heteroscedasticity.

## 6. Hypothesis Testing

| Model        | Sum of Squares | df  | Mean Square | F     | Sig. |
|--------------|----------------|-----|-------------|-------|------|
| 1 Regression | .080           | 1   | .080        | 4.098 | .044 |
| Residual     | 4.291          | 219 | .020        |       |      |
| Total        | 4.371          | 220 |             |       |      |

a. Dependent Variable: Sensation Seeking

b. Predictors: consideration of future consequences

Based on the table above, it can be seen that the value of F statistic = 4.098 with a significance value of  $p = .044$  ( $p < 0.05$ ). This value shows that the regression model is declared appropriate or goodness of fit (Ghozali, 2011).

To determine the magnitude of the influence of consideration of future consequences (CFC) on sensation seeking, the R determination test was carried out with the results as in the following table:

### 1. Model Summary

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1     | .136 | .018     | .014              | .13997                     |

a. Dependent Variable: Sensation Seeking

b. Predictors: consideration of future consequences

Based on the table above, it is also found that the value of coefficient R is .136. This value indicates that the variables of consideration of future consequences and sensation seeking on alcohol consumers in Medan City have a relationship but are classified as very small because they are in the range of .00 to .20 (Guilford, 1956). In addition, the table above also shows the value of the determinant coefficient (R Square) of .018. This value indicates that the effective contribution of consideration of future consequences (cfc) on sensation seeking on alcohol consumers in Medan City is 1.8%, while the rest is explained by other factors outside this research model.

| Model      | Sum of Squares | df  | Mean Square | F     | Sig. |
|------------|----------------|-----|-------------|-------|------|
| Regression | .058           | 1   | .058        | 2.962 | .087 |
| Residual   | 4.313          | 219 | .020        |       |      |
| Total      | 4.371          | 220 |             |       |      |

a. Dependent Variable: Sensation Seeking

b. Predictors: Self-Control

Based on the table above, it can be seen that the value of F statistic = 2.962 with a significance value of  $p = 0.087$  ( $p > 0.05$ ). This shows that the regression model is declared inappropriate or the hypothesis is not accepted. This shows that there is no effect of self-control on sensation seeking on alcohol consumers in Medan City.

| Model      | Sum of Squares | df  | Mean Square | F     | Sig. |
|------------|----------------|-----|-------------|-------|------|
| Regression | .136           | 2   | .068        | 3.488 | .032 |
| Residual   | 4.235          | 218 | .019        |       |      |
| Total      | 4.371          | 220 |             |       |      |

a. Dependent Variable: Sensation Seeking

b. Predictors: consideration of future consequence and self-control

Based on the table above, it can be seen that the value of F statistic = 3.488 with a significance value of  $p = 0.032$  ( $p < 0.05$ ). This value shows that the regression model is declared appropriate or goodness of fit (Ghozali, 2011).

To determine the magnitude of the influence of consideration of future consequence and self-control on sensation seeking, the R determination test was carried out with the results as in the following table:

## 2. Model Summary

| Model | R    | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------|----------|-------------------|----------------------------|
| 1     | .176 | .031     | .022              | .13938                     |

a. Dependent Variable: Sensation Seeking

b. Predictors: consideration of future consequence and self-control

Based on the table, it is also found that the value of coefficient R is .176. This value indicates that the variables of consideration of future consequences, sensation seeking and self-control on alcohol consumption in Medan City have a relationship but are classified as very small because they are in the range of .00 to .20 (Guilford, 1956). In addition, the table above also shows the value of the determinant coefficient (R Square) of .031. This value indicates that the effective contribution of consideration of future consequences and self-control on sensation seeking on alcohol consumers in Medan City is 3.1%, while the rest is explained by other factors outside this research model.

## VI. DISCUSSION

Based on the data above, CFC do not have a large contribution in providing effective contributions, but CFC have an effect on sensation seeking. These results are in line with research by Joireman, Anderson, and Strathman (2003) on students who engage in risky behavior. They show that sensation seeking is inversely related to CFC. Individuals who have a high CFC tend to be less likely to perform sensation seeking actions that appear in risky behavior actions. Individuals who have a low CFC tend to show a high level of sensation seeking and are displayed in risky behavior, so that negative consequences will occur in the short and long term. Sensation seekers tend not to have a sense of responsibility towards themselves or others and make themselves often involved in various behaviors, which most people consider to be quite risky consuming alcohol (Zuckerman, 1979).

Individuals who have a high CFC develop a strong self-regulatory capacity so that individuals who have a high CFC and are future-oriented tend to regulate their current behavior to prevent bad (negative) things that may happen in the future (Joireman, Balliet, Sprout, Spangenberg & Schultz, 2008). Then Joireman & King (2016) explained further that high awareness of future consequences can reduce an individual's desire to be oriented to temporal pleasures such as consuming alcohol. Temporal pleasures such as consuming alcohol intersect with a sense of seeking sensation to satisfy a momentary desire.

According to Baumeister (2007) self-control is the ability to inhibit unwanted responses and refrain from impulsive actions, which are detrimental in the long term. Self-control can make a direct contribution to behavior, such as refraining from offensive or hurtful words, and an indirect contribution, such as a person's refusal to engage in risky behavior such as drinking alcohol. (Crescioni, Ehrlinger, Alquist, Conlon, K. E., Baumeister, R. F., Schatschneider, C., & Dutton 2011).

A longitudinal study conducted by Pokhrel, Sussman, and Stacy (2014) also found the same thing as the results of the study. His research shows that self-control is not always found and does not always have a significant effect on sensation seeking. They also found the possibility of sensation seeking related to the initiation or habit of risky behavior, such as the use of cigarettes, consumption of alcoholic beverages, or sexual behavior that has been carried out from time to time. Thus, the habit of consuming alcohol has become commonplace for some people, who consider the religious and ethical norms of society to be no longer taken into account (Murniningsih & Wahyuningsih, 2007).

The individual's low self-control in alcohol consumption is related to the failure to consider future consequences (CFC) and to think more about the present moment (here and now) (Joireman, Strathman, & Balliet, 2006).

There are several factors that influence sensation seeking, such as: genetics/family (Zuckerman, 2005), personality (Roberti, 2004; Yanovitzky, 2006; Banerjee & Greene, 2009), social environment, such as family, peers, home environment and gender media, age, ethnicity, college area, race, and education, occupation, marital status, area of residence, and religion (Zuckerman, 1979; Zuckerman & Neeb, 1980). Therefore, there are other factors besides the CFC and self-control factors that can affect a person's sensation seeking.

Gender affects alcohol consumption, with men drinking more often, although alcohol use among women also continues to increase in line with economic developments and changing gender roles (WHO, 2014; BNN, 2014). Another thing that supports this condition is because men have a higher level of impulsivity and like to seek sensations compared to women (Zuckerman, dalam Kong, Smith, McMahon, Cavallo, Schepis, Desai, Potenza, & Sarin, 2015). Meanwhile, women consider future consequences more than men (Robbins & Burselon, 2015). Women are more protective of themselves from the effects caused by alcohol, so they are less likely to be involved in alcohol consumption (Holla, 2014).

A person, who lives in an environment that has the potential for risky behavior and has high sensation seeking, is more likely to try or initiate risky behavior, such as smoking and drinking alcohol (Frankenberger, 2004; Banerjee & Greene, 2009). The influence of these peers is very large in terms of seeking sensation for mere pleasure or arousing young souls (Zuckerman, 2007). Interestingly, self-control can also be influenced by the environment, so the sensation seeking level of alcohol use is also affected.

According to Chapple (2005) friends are one of the factors that influence self-control. Peers can provide comfort and support. This explains that there is a relationship between self-control with peers in carrying out risky actions including alcohol consumption (Holt & Bossler, 2009). Several other studies have also found a strong relationship between sensation seeking and overconfidence and impulsive decision making (Grinblatt & Keloharju, 2009; Khurana, Romer, Betancourt, Brodsky, Giannetta, & Hurt, 2012). These studies also strengthen this research that individuals who have high sensation seeking and have excessive self-confidence, will make impulsive decisions without considering future consequences (CFC) and low self-control, resulting in risky behavior such as consumption of alcoholic beverages. The implication of this research is that CFC and self-control together are factors that contribute to sensation seeking. Although separately, self-control does not always have a significant effect on sensation seeking for alcohol consumers in Medan City.

## VII. CONCLUSION

1. There is a negative and significant influence of consideration of future consequences (CFC) on sensation seeking on alcohol consumers in Medan City, with an effective contribution of 1.8%. The negative effect (value) generated by this study indicates that the higher the consideration of future consequences, the lower the individual's sensation seeking. Vice versa, the lower the consideration of future consequences, the higher the sensation seeking for alcohol consumers in Medan City.
2. Self-control has no negative effect on sensation seeking, where  $p = .087 (> .05)$ . This means that self-control does not have a significant effect on sensation seeking. This study shows that self-control does not always have a significant effect on sensation seeking, because there is a possibility that sensation seeking is only related to initiation or habits in drinking alcohol behavior.
3. Consideration of future consequences (CFC) and self-control together have a negative effect on sensation seeking with an effective contribution of 3.1%. That is, the higher the consideration of future consequences and self-control, the lower the individual's sensation seeking. On the other hand, the lower the consideration of future consequences and self-control, the higher the sensation seeking for individuals.

## REFERENCES

- [1] Ariesta, N. F. (2014). Hubungan penyalahgunaan alkohol dengan angka kejadian kecelakaan kendaraan bermotor pada pelajar sma di kota Yogyakarta. Skripsi. Yogyakarta: Fakultas Kedokteran Universitas Gadjah Mada.
- [2] Banerjee, S. C., & Greene, K. (2009). Sensation seeking and adolescent cigarette smoking: examining multiple pathways in cross-sectional data. *The Open Addiction Journal*, 2, 12-20.
- [3] Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation*. San Diego: Academic Press, Inc.
- [4] Baumesiter, R. F. (2002). Yeilding to Temptation: Self-disclosure Failure, Impulsive Purchasing and Consumer Behavior. *Journal of Consumer Research*, 28 (4).
- [5] Chapple, L. C. (2007). Self-Control, Peer Relation, and delinquency. *Justice Quarterly Journal*. 22(1)

- [6] Crescion, A. W., Ehrlinger, J., Alquist, J. L., Conlon,
- [7] K. E., Baumeister, R. F., Schatschneider, C., & Dutton, G. R. (2011). High trait self-control predicts positive health behaviors and success in weight loss. *Journal Health Psychology*, 16(5), 750–759.
- [8] Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). Boston: Pearson Education, Inc.
- [9] Doran, N., Sanders, P. E., Bekman, N. M., Worley,
- [10] M. J., Monreal, T. K., McGee, E., Cummins, K., & Brown, S. A. (2012). Mediating influences of negative affect and risk perception on the relationship between sensation seeking and adolescent cigarette smoking. *Nicotine & Tobacco Research*, 13(6), 457–465.
- [11] Dumadi, S. (2006). *Maraknya Peredaran Minuman Keras dan Narkoba di Berbagai Sarana Hiburan (Studi Kasus di Wilayah Hukum Kota Madya Medan)*. Publication manuscript. Universitas Sumatera Utara: Medan
- [12] Emqi, Z. M. (2013). Belief pada remaja penyalahgunaan alkohol. *Jurnal Online Psikologi*, 1(02). Accessed on September 4, 2020 via <http://ejournal.umm.ac.id>.
- [13] Field, A. (2009). *Discovering statistic using SPSS*.
- [14] London: SAGE
- [15] Frankenberger, K. D. (2004). Adolescent egocentrism, risk perceptions, and sensation seeking among smoking and nonsmoking youth. *Journal of Adolescent Research*, 19 (5), 576-590.
- [16] Gottfredson, M., & Hirschi, T. (1990). *A general theory of crime*. Palo Alto, CA: Stanford University Press.
- [17] Grinblatt, M., & Keloharju, M. (2009). Sensation seeking, overconfidence, and trading activity. *Journal of Finance*, 140(2), 234-240.
- [18] Guilford, J.P. (1956). *Fundamental Statistics in Psychology and Education*. New York: McGraw Hill.
- [19] Ghozali, Imam. (2011). *Aplikasi Analisis Multivariate Dengan Program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.
- [20] Hapsari, K.M. (2007). *Fenomena munculnya alkoholisme di kalangan mahasiswa*. Naskah Publikasi Skripsi. Semarang: Fakultas Psikologi Universitas Katolik Soegijapranata.
- [21] Hawari, D. (2004). *Penyalahgunaan narkotika dan zat adiktif*. Jakarta: Balai Penerbit.
- [22] Holla, A. (2014). *The Consequences of risky behaviors*. In Damien de Walque. *Risking your health: causes, consequences, and interventions to prevent risky behaviors*. Washington DC: The World Bank.
- [23] Holt, T. J., & Bossler, A. M. (2009). Examining the applicability of lifestyle routine activities theory for cybercrime victimization. *Deviant Behavior*, 30, 1–25
- [24] Hurlock, E.B. (2009). *Psikologi perkembangan*. (5th ed). Jakarta: Erlangga.
- [25] Indraprasti, D. & Mira, R. A. 2008. *Hubungan Antara Kontrol Diri Dengan Perilaku Minum Minuman Keras Pada Remaja Laki-Laki*. Naskah Publikasi. Yogyakarta: Fakultas Psikologi dan Ilmu Budaya Universitas Islam Indonesia
- [26] Joireman, J., Anderson, J., & Strathman, A. (2003). The Aggression Paradox: Understanding Links Among Aggression, Sensation Seeking, and the Consideration of Future Consequences. *Journal of Personality and Social Psychology*, 84(6), 1287-1302.
- [27] Joireman, J., Shaffer, M.J., Balliet, D., & Strathman, (2012). Promotion orientation explains why future-oriented people exercise and eat healthy: Evidence from the two-factor consideration of future consequences-14 scale. *Personality and Social Psychology Bulletin*, 38(10), 1272-1287.
- [28] Joireman, J., Strathman, A., & Balliet, D. (2006). Considering future consequences an integrative model. In L. Sanna., E. Chang

- (Eds). Judgement overtime: The interplay of thought, feelings, and behaviours, 82-99.
- [29] Kementrian Kesehatan RI. (2014). Gambaran umum penyalahgunaan narkoba di Indonesia. Buletin Jendela Data dan Informasi Kesehatan. Jakarta: Bakti Husada
- [30] Khachatryan, H., Joireman, J., & Casavant, K. (2013). Relating values and consideration of future and immediate consequences to consumer preference for biofuels: A three-dimensional social dilemma analysis. *Journal of Environmental Psychology*, 34, 97-108.
- [31] Khurana, A., Romer, D., Betancourt, L. M., Brodsky,
- [32] N. L., Giannetta, J. M., & Hurt, H. (2012). Early adolescent sexual debut: the mediating role of working memory ability, sensation seeking, and impulsivity. *Journal of Psychology*, 48(5), 1416–1428.
- [33] Kong, G., Smith, A. E., McMahon, T. J., Cavallo, D. A., Schepis, T. S., Desai, R. A., Potenza, M. N. & Sarin, S. K. (2013). Pubertal Status, Sensation- Seeking, Impulsivity, and Substance Use in High School-Aged Boys and Girls. *Original Research Addict Med*, 7(2), 116-121.
- [34] Lindgren, K. P., Neighbors, C., Westgate, E., & Salemink, E. (2014). Self-control and implicit drinking identity as predictors of alcohol consumption, problems, and cravings. *Journal of studies on alcohol and drugs*, 75(2), 290-298.
- [35] Malmberg, M., Overbeek, G., Monshouwer, K., Lammers, J., Vollebergh, W. A., & Engels, R. C. (2010). Substance use risk profiles and associations with early substance use in adolescence. *J Behav Med*, 33(6), 474–485.
- [36] Manthey, J., Shield, K. D., Rylett, M., Hasan, O. S. M., Probst, C., & Rehm, J. (2019). Global Alcohol Exposure Between 1990 and 2017 and Forecasts until 2030: A Modelling Study. *The Lancet Regional Health*, 393 (Issue 10190), 2493-2502.
- [37] Murniningsih, P., & Wahyuningsih, H. (2007). Kerentanan remaja terhadap dugem. Naskah Publikasi Skripsi. Yogyakarta: Fakultas Psikologi Universitas Islam Indonesia.
- [38] Nainggolan, M. N. (2012). Analisis Perilaku “Dugem” Mahasiswa/i Di Kota Medan Dengan Teori Tindakan Sosial Talcott Parsons (Studi Deskriptif pada Mahasiswa yang Melakukan Aktivitas Dugem di Kelab Malam Entrance, Elegant, dan New Zone). Naskah Publikasi. Medan: Universitas Sumatera Utara.
- [39] Nazim, A. M., Sham, F. M., & Hamjah, S. H. (2013). Ciri-ciri Remaja Berisiko: Kajian Literatur. *ISLAMIIYYAT*, 35(1), 111–119.
- [40] Papalia, D.E., Old, S.W., & Feldman, R. D. (2011). Human development. (9th ed). Jakarta: Kencana.
- [41] Pokhrel, P., Sussman, S., & Stacy, A. (2014). Relative Effects of Social Self-Control, Sensation Seeking, and Impulsivity on Future Cigarette Use in a Sample of High-Risk Adolescent. *Subst Use Misuse*, 49(4), 343-351.
- [42] Pratama, V. N. D. (2013). Perilaku remaja pengguna minuman keras di Desa Jatigono Kecamatan Kunir Kabupaten Lumajang. *Jurnal Promkes*, 1(2), 145-152.
- [43] Robbins, R. N., Bryan, F. (2004). Relationships between future orientation, impulsive sensation seeking, and risk behavior among adjudicated adolescents. *Journal of Adolescent Research*, 19(4), 428-445.
- [44] Roberti, J. W. (2004). A review of behavioral and biological correlates of sensation seeking. *Journal of Research in Personality*, 38, 256–279.
- [45] Roman, P. A. L., Perez, J. C. C., & Pinillos, F. G. (2014). Sensation seeking and habits of smoking, alcohol consumption and sports practice in Secondary School students. *Salud Mental*, 37, 143- 149.
- [46] Saputra, D., Dundu, A. & Kaunang, T.M.D. (2014). Prevalensi penyalahgunaan napza pada wanita pekerja seks remaja di Kota Manado (penelitian kualitatif terhadap dua wanita pekerja seks. *Jurnal Fakultas Kedokteran Universitas Sam Ratulangi Manado*, 2(2), 1-7.
- [47] Sihombing, E. D. (2018). Gambaran Kebiasaan Konsumsi Tuak, Pola Makan dan Keluhan Gejala Gastritis Pria Dewasa di Desa Sibuntuon Partur Kecamatan Lintongnihuta Tahun 2018. Naskah Publikasi. Medan: Universitas Sumatera Utara

- [48] Tangney, J. P., & Baumeister, R. F. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*. 72 (2), 272-322. Ghufro, M. N., & Risnawita, R. (2011). *Teori-Teori Psikologi*. Ar-Ruz Media. Yogyakarta.
- [49] World Health Organization. (2003). *The Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST): Guidelines for use in primary care*. Department of Mental Health and Substance Dependence. Geneva: Switzerland.
- [50] World Health Organization. (2014). *Global status report on alcohol and health. management of substance abuse*. Department of Mental Health and Substance Abuse. Geneva: Switzerland.
- [51] World Health Organization. (2018). *Global status report on alcohol and health. management of substance abuse*. Department of Mental Health and Substance Abuse. Geneva: Switzerland.
- [52] Zuckerman, M. (1971). Dimensions of sensation seeking. *Journal of Consulting and Clinical Psychology*, 36(1), 45-52.
- [53] Zuckerman, M. (1979). *Sensation seeking: Beyond the Optimal Level of Arousal*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- [54] Zuckerman, M. (2007). *Sensation Seeking and Risky Behavior*. Washington: American Psychological Association.