Gender, Stress and Smoking Behavior on Young Adults in Banda Aceh

Hasmelia Novriana\textsuperscript{1}; Syarifah Faradina\textsuperscript{2}; Afriani\textsuperscript{3}

\textsuperscript{1,2,3}Syiah Kuala University, Indonesia

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GENDER, STRESS AND SMOKING BEHAVIOR ON YOUNG ADULTS IN BANDA ACEH

Hasmelia Novriana¹; Syarifah Faradina²; Afriani³

¹,²,³Syiah Kuala University, Indonesia
¹Contributor Email: hasmelianovriana@yahoo.com

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Abstract

Young adult is a period of adaptation from adolescence to adulthood. The young adult is vulnerable to the onset of stress due to various demands and problems at hand. Stress is often associated with harmful behaviour one being smoking. Not only men but women are now becoming smokers too. The purpose of this study is to determine the relationship between gender, stress, and smoking behaviours in young adults in Banda Aceh. This research used a correlation research design. Incidental sampling technique was used with a total sample of 105 people (57 male smokers and 48 female smokers). Data was collected using an adapted version of the Depression Anxiety Stress Scale (DASS 42). Hypothesis test using the Spearman correlation test technique showed a significance of $r = 0.37$ ($p < 0.05$) on the relationship between gender and stress which means that women have higher stress than men. Results also showed there is a relationship between gender and smoking behaviour with a significance of $r = -0.42$ ($p > 0.05$), which means that men have a higher level of cigarette consumption than women.

Keywords: Gender; Smoking Behaviour; Stress; Young Adult.
A. Introduction

World Health Organization (WHO) in 2010 stated that in the decade 2020-2030 tobacco would kill 10 million people per year, and 70% of them occurred in the developing countries. Indonesia is in the 4th position as the biggest cigarette consumption in the world after China, India and the United States. According to the results of the 2013 Basic Health Research (Riskesdas), the number of smokers in Indonesia with age above 15 years tends to increase. In 2010 it was recorded that 34.7% of smokers and in 2013 increased to 36.3%. Riskesdas shows daily smoking habits are in several characteristics such as age and gender. In the age group of 20 to 24 years reached 27.2% of the 300,000 household samples studied, for men who smoke every day reached 47.5% and for women 1.1%. The results of Riskesdas (2013) also showed that the level of cigarette consumption in Aceh per day reaches 25%, which means that every smoker in Aceh consumes 15 cigarettes.

According to Sitopoe (2000), smoking is burning tobacco which is then inhaled, using cigarettes or pipes. Smoking behaviors are taken by a person that is associated with the burning and inhalation of a substance. Smoking behavior is multifaceted and includes the actual act of smoking, puffing style, depth of inhalation, and rate and frequency of smoking. Putra (2013) informed there are three types of smokers, light smokers (no more than 10 cigarettes per day), moderate smokers (smoking between 11-20 cigarettes per day), and heavy smokers (smoking more than 24 cigarettes per day). Large amounts of cigarettes consumption and continuously can harm health. The short-term effects on health are coughing, fatigue, shortness of breath, and a lack of ability to smell and taste, while the long-term effects on health that can occur are cancer (on the lips, tongue, esophagus, lungs), respiratory problems, tuberculosis, heart failure, hypertension, osteoporosis, kidney disorders, fertility disorders, skin wrinkles and others (Brahmin, 2009).

Pratiwi (2007) said that the factors that encourage a person to start smoking are very diverse, both in terms of factors from within themselves (personal), socio-cultural, and environmental influences. Perwitasari
(2006) explains that smoking is the result of a social process, whereby a person who is not a smoker when dealing with a tempter or an active smoker will eventually try it by himself. The number of male smokers today causes women to want to smoke too. Women assume that an individual usually becomes addicted after trying the first cigarette. It can cause such as habits, reduce anxiety, and gain acceptance (Oskamp, 1984).

This also happens because someone thinks smoking can overcome stress, and relieve anxiety. Tomkin (1996) added that the reason someone smokes is that they believe it can avoid a situation from stress. Stress can hit anyone and anywhere, no one can avoid stress whether it's adolescence, adults and even the elderly. Stress also does not recognize gender differences or social position, both men, women, the rich and the poor have experienced stress (Joseph, 2008). Thaib (2017) said that a factor in the high number of smokers in Aceh was due to the tendency of people to smoke because of high stress and the ease of getting cigarettes at cheap prices. Every smoker in Aceh spends an average of 19 cigarettes per day.

Stress in early adulthood it because the difficult transition from adolescence to adulthood, where there will be a new pattern of life and must assume responsibility by the task of development as an adult (Dewi, 2013). The results of Riskesdas (2013) show that 6 percent of Indonesian people over the age of 15 years experience a mental-emotional disorder. The data also showed that as many as 6.6% of Aceh's population experience a mental-emotional disorder such as stress, anxiety, and depression. According to Hurlock (2006), early adulthood starts from the age of 20 to 40 years, where early adulthood is a special and difficult adjustment period. At this time a person is considered an adult if he is independent who has new life patterns and new social expectations.

Problems that arise in early adulthood are often difficult problems to overcome. Hurlock (2006) also added that the characteristics of early adulthood are a period filled with emotional tension, where the emergence of a sense of fear or worry because it depends on how individuals resolve existing problems. Farleigh (2015) adds that in adulthood, the tendency to smoke more often appears. Where 45% of
cigarette consumption occurs at the age of 18-25 years, and the age range is in the transition from adolescence to adulthood.

Some causes of stress in adulthood are works, finances, conflicts with family, conflicts with friends or friends at work, housing situation, unemployment, health, and future worries. In adult men, stress tends to be caused by work and events at work, whereas in women it tends to be caused by family and health problems (Maddock, Heinrich, Keller, Aung, Chung & Gentry, 2007). Maramis (2009) explains that stress is any problem or adjustment that can disturb our balance and if we are unable to handle it properly, there will be disturbances in physically or mentally. Stress has identical characteristics in adapting behavior to its environment, where this environment can be things outside of the self (the outer world), but can also be from within (the inner world). So, individuals are said to be adaptive if the individual can adjust to the demands of others, but they can also meet their own needs (Sutardjo, 2007).

Komasari and Helmi (2000) state that the most consumption cigarette is when the subject is under stress (stress) which is used to overcome emotional problems and smoking is seen as a counterweight in stressful conditions. This was also supported by Wills (in Karman, Tommy, & Suyasa, 2004) who said that smoking behavior was related to the intensity of stress in their lives. The higher the intensity of stress, the higher the frequency of smoking. Based on the results of research conducted by Erfin (2014), the stress in women is related to the tendency to become a smoker. When the intensity of stress is high, it increases the frequency of smoking. Research conducted by Rizkiani and Widyastuti (2012) found that in men there was no relationship between stress and smoking behavior. Farleigh (2015) further explained that there are differences in the tendency of smoking between men and women when under stress. This is because women use their emotional side compared to men so that women's stress levels show values above the average followed by cigarette consumption compared to men.
B. Literature Review

Lovibond and Lovibond (1995) explain that stress is an emotional response that arises due to pressing events in an individual's life. When stressed individuals tend to become more irritable, it is difficult to calm down, and become impatient in dealing with various situations. Stress can be seen in five different aspects. There are difficult relaxing, nervous arousal, irritability or agitated, irritability or excessive reactions, and impatient.

According to Mroczek and Almeida (2004), stress experienced in adulthood is related to the emergence of negative effects. These negative effects cannot be overcome, such as economic, family and personal problems. Smoking can have a calming effect, relieve stress and relieve negative feelings. So smokers feel better when they smoke if they are experiencing problems (Shuaib, 2010). Baldwin (2002) states that stress experienced by men and women are generally the same, but the reactions tend to be different. In women, the stress reaction causes them to be very anxious, whereas, in men, the stress reaction caused is the need to deal with the stress.

Sitepoe (2000) said smoking behavior is an activity that burns tobacco which is then smoked, both using cigarettes and pipes. Sitepoe (2000) adds that there are three types of smokers, there are light smokers who smoke 1-10 cigarettes per day, moderate smokers who smoke 10-20 cigarettes per day and heavy smokers who smoke more than 24 cigarettes per day.

C. Method

This study used quantitative research designs with correlational research type. The population in this study was early adult smokers. Sampling was used nonprobability sampling, with incidental sampling technique which is a sampling technique from populations that happen to be following the characteristics.

1. Participants

The number of participants was 105 people (57 men and 48 women). The samples criteria in this study was have smoked or smoker and the age between 20-40 years.
2. Measurement

The data collection used is Depression Anxiety Stress Scale (DASS) that was compiled by Lovibond and Lovibond (1995) and has been adapted by Damanik (2006). The Damanik 42 scale consists of 42 items. The DASS which is adapted by Damanik consist of 14 items for measuring depression, 14 items for measuring anxiety and 14 items for measuring stress. In this research used the 14 items for measuring stress. The reliability for DASS which is adapted by Damanik is 0.94 and the reliability for stress scale is 0.88. Smoking behavior is measured using the question "how many cigarettes do you smoke in 1 day?" Based on Sitepoe (2000), there will be three categorizations of smoking behavior; there are mild (1-10 cigarettes/day), moderate (10-20 cigarettes/day) and heavy smokers (>24 cigarettes/day). The data analysis technique used to test the hypothesis is the Spearman analysis technique with SPSS Version 22.00 for windows.

D. Result and Discussion

1. Result

The Spearman Statistical correlation test was used to test the hypothesis. This correlation technique is used to analyze the relationship between sex, stress and smoking behavior in early adulthood in Banda Aceh. There are three hypotheses proposed in this research.

H1: The relationship between stress and smoking behavior
H2: The relationship between sex and stress
H3: The relationship between sex and smoking behavior

Hypothesis test results on H2 showed the relationship between sex and stress variables had a correlation coefficient value \( r = 0.377, \ p = 0.000 \) \( (p <0.05) \). This result indicates that there is a significant relationship between sex and stress in early adulthood in Banda Aceh. The results of hypothesis testing on H3 also showed a relationship between sex and smoking behavior in early adulthood in Banda Aceh with a coefficient value of \( r = -0.431, \ p = 0.000 \) \( (p <0.05) \). This shows that there was a negative relationship between sex and smoking behavior.
While testing $H_1$ did not find any significant relationship between stress and smoking behavior with a value of $r = 0.088$, $p = 0.371$ ($p > 0.05$).

### Table: Stress categorization

| Categorization | Male | | Female | |
|----------------|------|------|--------|------|
|                | $n$  | %    | $n$    | %    |
| Normal         | 12   | 11.4 | 1      | 0.9  |
| Mild           | 5    | 4.8  | 4      | 3.8  |
| Moderate       | 24   | 22.8 | 23     | 21.9 |
| Severe         | 14   | 13.3 | 13     | 12.3 |
| Very Severe    | 1    | 1.9  | 7      | 6.6  |
| **Total**      | 57   | 54.2 | 48     | 45.5 |

2. Discussion

The aims of this study were to determine the relationship between sex, stress, and smoking behavior in early adulthood in Banda Aceh. The results only showed that was a relationship between sex and stress, and the relationship between sex and smoking behavior.

The relationship between sex and stress in this study is supported by several previous studies, such as the results of Nasrani research (2015) which states that sex affects the level of stress, the only difference being the response between men and women when facing a conflict. Women's brains have a vigilance that triggers hormones that cause stress, anxiety, and fear, while men generally enjoy conflict and competition, even assuming that conflict can provide a positive improvement. According to Tamres, Janicki, and Helgenson (2002) there has been no definitive research that states that women's stress levels are higher than men, or men's stress levels are higher than women but differences arise because of existing gender norms, where women more easily admit that she felt stressed compared to men who thought that it made him look weak.

The relationship between sex and smoking behavior in this study was supported by several previous studies, such as those conducted by Rachiotis et al. (2008). They stated that the older age, sex, parental education level, and the availability of quite a lot of allowance during adolescence is
significantly related to current smoking behavior. Bostock and Amos (2006) stated that smoking behavior in men and women due to social relationships and negative feelings. In men, smoking is a way to avoid or reduce the feeling of contention caused by feelings of anger and frustration while in women smoking is a way to vent feelings of resentment.

The results of the study also showed that the majority of the study sample was 47 (44.7%) smokers included in the moderate stress category, which means individuals could experience a variety of symptoms such as feeling tired, irritable, hard to rest, easily offended, and restless (Psychology Foundation of Australia in Putra, 2015). Furthermore, there were 27 (25.6%) smokers included in the category of severe stress, which means that individuals have difficulty in moving, impaired social relations, difficulty sleeping, decreased concentration, fear is unclear, fatigue increases, unable to do simple work, disruption in the body system increases, feelings of fear increase (Rasmun, 2004).

Results showed that the majority of the study sample was 55 smokers (52.8%) included in the category of moderate smokers who consumed 10 to 20 cigarettes per day. This is consistent with Riskesdas data (2013) which found that smokers in Aceh consume 15 cigarettes per day.

The results in this study also showed there was no relationship between stress and smoking behavior in early adulthood in Banda Aceh due to other factors that were not controlled in this study. Other factors include environmental factors around smokers including smoking behavior of parents, siblings, and peers. This is supported by the results of research Widyastuti and Rizkiani (2012), which states that there is no significant relationship between stress and smoking behavior in adults because, besides the influence of negative feelings such as stress, smoking behavior has also become a habit so that smokers will continue to smoke under any circumstances. Farleigh (2015) also states that there is no relationship between stress and smoking behavior in men and women.
E. Conclusion

This study aims to determine the relationship of sex, stress and smoking behavior in early adulthood in Banda Aceh. The results showed there a relationship between sex and stress and also there is a relationship between sex and smoking behavior. Other results state that there is no relationship between stress and smoking behavior.

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