

Relationship Between Stress and Emotional Eating in First-year Students

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Abstract: This study aimed to examine the relationship between stress and emotional eating in first year university students. The first-year university students, commonly adolescents, often face distress which could trigger emotional eating. There are several negative effects of emotional eating including obesity, depression, and eating disorders. The study was conducted among 195 students ($M = 18.6$). The Indonesian version of the student-Life Stress Inventory and the Indonesian version of the Dutch Eating Behaviour Questionnaire were used. The study indicated that there was a positive relationship between stress and emotional eating ($r = 0.317$, $p < 0.001$). Therefore, a good stress management skill is necessary to overcome the negative effects of stress and avoid emotional eating among the first-year students

1 INTRODUCTIONS

The first year of College Students is a transition period from high school to college life, where individuals must adapt to college life. When entering the first year of lectures, the student comes into a new academic environment which is harder than high school life. Academic demands can be a competition to achieve the best score, the number of assignments, and the lack of time to do the assignment cause the individual to have bad time management, the need to adjust to a new environment, and the development of thinking ability (Wangeri, Kimani & Mutweleli, 2012). When entering the first year of university, the average age of the students is 18–21 years old, which belongs to the late adolescence group (Steinberg, 2013). Determining the goal in their life, the desire to succeed, concern about finance, social pressure, thinking about the uncertainty of the future, and social opportunity is a challenge faced in late adolescence (Wood, et al., 2018).

Suyu claimed that most first year students face challenges while away from their families (Suyu & Tatta, 2016). This is because adolescence still needs big role of parents to protect them and provide their direction (Wangeri, Kimani & Mutweleli, 2012). Some of them also will encounter a variety of new situations such as the system's lectures, the

courses are more difficult, have some friends from different areas with diverse cultural backgrounds (Rahayu & Arianti, 2020). Thus, environmental changes and the competition experienced through the process of rapid learning during the lecture caused stress on first-year college students. Lazarus & Folkman (1984) explained that stress is a result of interaction between an individual with the environment which has been evaluated to become a demand where they couldn't deal with a dangerous situation and health threat. *Emotion focus coping* become one of the coping stress methods, which focused on emotion regulation to be free from stress. Gadzella (1994) explained that there are four reactions of stress: physical reaction, emotional reaction, behavioral reaction, and cognitive reaction. Stress can be manifested into emotional eating behavior (Mishra & Mishra, 2013; El-Aziz, Sharkawy & Yousef, 2014; Tan & Cow, 2014; Novtari, Trimawati & Wakhid, 2017; Zies, 2017). Emotional eating is a tendency to eat more as a response to negative emotions (Van Strein, et al., 1986). Eating is an activity should be done as the fulfillment of physical needs to survive, but in emotional eating phenomenon, eating is triggered by negative emotions. Peoples with emotional eating tend to eat continuously and will not stop even though stomach feels full (Kuijjer & Boyce, 2012). Emotional eating makes peoples learned that

overeating in response to negative emotions can affect the reduction of stress. Eating is a fun and loving activity, so people can get rid of negative feelings and reduce anxiety (Howell, 2017).

People with emotional eating cannot differentiate between physically hungry and emotionally hungry. In physically hungry, eating is done when the stomach is full. Opposed to being emotionally hungry, eat triggered by emotions so that individuals will tend to eat continuously (Kuijer & Boyce, 2012). Emotional eating has an effect both physically and psychologically: Physically effect including weight gain and psychological effect including depression, bulimia nervosa and binge eating (Tan & Cow, 2014). Because of the risks that arise as a result of emotional eating and changes in eating function performed by an individual, it is important to explore what are the factors that trigger emotional eating (Tan & Chow, 2014). There is a lot of research that explained the relationship between stress and excessive eating behavior (Zies, 2017; El-Aziz, et al., 2014; Tan & Chow, 2014; Mishra & Mishra, 2013). The research of El-Aziz, et al. (2014) showed that there is a significant relationship between uncontrolled eating behavior and the stress level experienced by female nursing students in Mesir. In line with that findings, Tan & Chow (2014) stated that there is a relationship between stress and emotional eating which can be resolved by eating dysregulation in college students in the US. Mishra & Mishra (2013) through their research on students in Oman stated that eating is the only way to lighten the stress though it can overbalance the weight gain. In Indonesia, research has shown that there is a significant relationship between stress levels and emotional eating in students who were working on a thesis at Universitas Ngudi Waluyo Ungaran (Trimawati & Wakhid, 2017). This study aimed to examine the relationship between stress and emotional eating specifically among first-year college students.

2 METHODS

2.1 Technique Sampling

The research method used an explanatory quantitative method to explain the relationship between stress and emotional eating. Data analysis was done through Spearman's-rho test and u Mann Whitney test.

2.2 Research Subject

Respondents were selected using non-random sampling technique (non-probability sampling) saturation sampling with predetermined criteria: first-year college students in Faculty of Psychology, Airlangga University aged 18-21 years. The respondents have given a verbal consent to participate in the research, prior to the study.

2.3 Instrument

The data were collected by Student-Life Stress Inventory, which was used to measure stress levels, including 51 questions ($\alpha = .900$), and Dutch Eating Behaviour Questionnaire, which was used to assess emotional eating, involving 13 questions ($\alpha = .931$).

The two measuring instruments have been adopted into Indonesian under the supervision of the rating provided by the expert judgment and using a Likert scoring with the answer range 1 to 5 in both instruments.

3 RESULT

There were 195 respondents participated in the present study, ($M = 18.6$). Most of them were females (83.6%), had a normal BMI (48.2%), and live in a boarding house (64.1%), see table 1 (Appendix). The differences in stress level indicate a higher mean score for females ($M = 142.20$) than for males ($M = 141.44$). In response to stress by live arrangement, the ratings were higher for participants who lived in a boarding house ($M = 144.24$) in comparison to a participant who lived with their family ($M = 138.21$), see table 2 (Appendix).

The Mann-Whitney U test showed that there were statically significant differences in stress between participants who lived with their family and who lived in a boarding house ($p = .056$), see table 3 (Appendix).

3.2 Correlational Analyses

Spearman's rho was implemented to analyze the correlation between stress and emotional eating. The statistical result, there was a positive relationship between stress and emotional eating with a moderate correlation's strength ($r = 0.317$, $p < .0001$).

4 DISCUSSION

The study showed that there was a positive relationship between stress and emotional eating. This result aligned with study of Trimawati and Wakhid (2017) which found that there was a significant correlation between stress levels and emotional eating in students who were working on a thesis at Universitas Ngudi Waluyo Ungaran. Furthermore, Nguyen-Rodriguez, Unger, & Spruijt-Metz (2010) through their research stated that emotional eating was associated with perceived stress and worries.

The presence of other variables gives the possibility of the correlation's strength. According to Pallant (2007) The correlation strength between the two variables in this study was moderate. The research of Trimawati & Wakhid, (2017) showed that most respondents don't have emotional eating behavior. (Afifah & Wardhana, 2015) in their research stated that the introverted personality type significantly affects emotional eating. While the extrovert personality type is significantly negatively correlated and does not affect emotional eating. The introverted personality type has a positive direction with emotional eating.

In this study, stress and emotional eating show a significant relationship. So, first year college students are advised to use a problem-focused coping method rather than an emotional-focused coping stress method. Despite its findings, the study has a limitation: the respondents were students of Faculty of Psychology, Airlangga University, thus generalizability of the study is limited. The suggestion for the next researcher is to seek respondents from different faculties to obtain more varied data variations.

This study also shows that there is a significant difference in stress variables by live arrangement, where individuals who lived in boarding houses have higher stress than individuals living at home with their parents or family. The results of this study are in line with the research conducted by Devinta, et al., (2016) stated that there is a culture shock phenomenon felt by overseas students in Yogyakarta. Shape culture shock in the study is all forms of mental and physical stress.

Amelia (2016) stated, one of the factors that cause individual pressure is social support. The social support that can be accessed from family, friends, and the work environment can provide spirit, and motivation, forming an adaptive emotion and serving as an individual defense system in

solving problems (Tentama, 2014; Untari & Rohmawati', 2014).

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APPENDIX

Demographics		<i>N</i>	%
Age	18	115	59
	19	56	28,7
	20	16	8,2
	21	8	4,1
Gender	Female	32	16,4
	Male	163	83,6
Live Arrangement	House	70	35,9
	Boarding house	125	64,1
BMI	Underweight	55	28,2
	Normal Weight	94	48,2
	Overweight	35	17,9
	Obese	11	5,6

Statistic Descriptive	Stress		Emotional Eating		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Age	$\mu = 18.57 (\sigma = .811)$				
Gender	Female	142.20	20.16	100	34
	Male	141.44	26.41	22	8
Live Arrangement	House	138.21	20.14	32.17	10.61
	Boarding house	144.24	21.59	33.07	11.39
BMI	Underweight	142.51	20.13	30.96	10.40
	Normal Weight	139.04	20.24	32.69	9.89
	Overweight	148.77	22.77	34.57	14.66
	Obese	144.55	27.08	36.36	11.10

Mann-Whitney U-Test	Stress		Emotional Eating		
	<i>R</i>	<i>p</i>	<i>R</i>	<i>p</i>	
Gender	Female	97.90	.954	99.03	.565
	Male	98.53		92.75	
Live Arrangement	House	87.69	.056	95.13	.595
	Boarding house	103.77		99.61	