

## THE RELATIONSHIP BETWEEN STRESS AND MENSTRUAL CYCLE DISORDERS IN ADOLESCENT WOMEN IN PEMATANG SIANTAR PRIVATE JUNIOR HIGH SCHOOL 2018

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### *Abstract*

*Menstruation is a natural process for women, namely the decay of the endometrial wall which comes out through the vagina along with blood, the normal menstrual cycle is 21-35 days. Disorders of the menstrual cycle are influenced by disturbances in hormone function, systemic disorders, stress, thyroid gland, and excessive prolactin hormone. Currently, there are many facts that reveal the relationship between stress and menstruation which is a health problem. The purpose of this study was to determine the relationship between stress and menstrual cycle disorders in young women in private junior high schools. TELADAN Pematangsiantar 2018. The method used is an analytical survey method with a cross sectional approach. The population of this study was all grade 3 students at TELADAN Pematangsiantar Private Middle School as many as 5 million people, the sample technique used was total sampling. The sample in this study amounted to 47 people. Data analysis Univariate analysis was performed to find out the description of the respondents according to the variables studied in the form of a frequency distribution table, while bivariate analysis used the chi-square test. Results At the end of the study, it was found that 31 respondents (66.0%) experienced severe stress with details of 18 respondents (58.1%) with normal menstrual cycles and 13 respondents (14.9%) with abnormal menstrual cycles (polymenorrhea). Value = -0.035 (p > 0.05). The conclusion in this study is that there is a relationship between stress and menstrual cycle disorders with p > 0.035 (p > 0.05). Suggestions for society in general and female students in particular in dealing with stress to make stress as a motivation not as a pressure so that it does not have a bad effect on health,*

**Keywords:** *Stress, Menstrual cycle, Teenagers*

### INTRODUCTION

Adolescence is a period of transition from childhood to adulthood. This period is often referred to as puberty. According to some experts, in addition to the term puberty, the term adolescence is also used. Puberty is used to express biological and physiological changes that occur rapidly from childhood to adulthood, especially reproductive changes. Meanwhile, the term adolescence places more emphasis on the psychosocial changes or maturity that accompany puberty (emotional, social, intellectual, and moral). Adolescents are between the ages of 10-18 years (Tarwoto et al, 2010).

The total population in the city of Pematang Siantar is 245,104 people and 125,522 people or the same (51.21 Y9) are women (BPS, 2014). Becoming a teenager means going through a tough process that requires a lot of adjustments and creates anxiety. Stress becomes very difficult and even unavoidable in modern life like today. Everyone has experienced stress, including teenagers. The problems that trigger the most stress among adolescents are problems of the social environment, love, and the search for identity. Normal people can adapt to long-term stress or short-term stress so that the stress passes (Mumpuni and Wulandari, 2014).

During this transitional period there are various changes that will be experienced by adolescents, both physical, psychological and social changes (Gunarsa, 1978 cit Kusminar, 2011). Physical changes in adolescents are marked by changes in physical appearance and physiological function, especially those related to the sexual glands. In women, it begins with the occurrence of the first menstruation or menarche at the age of 12-13 years (Manuaba, 2009).

Generally, the process of physical maturation is faster than psychosocial maturation. Because of this, an imbalance often occurs which is used interchangeably to explain various stimuli with excessive intensity that are not preferred in the form of physiological, behavioral and subjective responses to stressors, contexts that bridge encounters between individuals and stressful stimuli, all as a system. In its effect on menstruation, stress involves the neuroendocrinological system as a system that has a large role in female reproduction. (Striatii, 2005)

Disorders of the menstrual cycle are influenced by disturbances in hormone function, systemic disorders, stress, thyroid gland, and excessive prolactin hormone. Disturbances from menstrual stress consist of three, namely: short menstrual cycles called polymenorrhea, long menstrual cycles or oligomenorrhea and amenorrhea if menstruation does not come for 3 consecutive months (Isnaeni, 2014).

The high incidence of menstruation-related disorders above is probably related to the physical activity carried out by adolescents as previously described. As Tambing (2012) said that a person's physical activity can have an impact on health, including the reproductive health of adolescents, as well as disruption of the menstrual cycle in young women. Disorders related to menstruation are important to pay attention to because this will affect the quality of life and the daily activities of the adolescents themselves. In addition, it is also feared that prolonged and untreated menstrual cycle disturbances can trigger breast cancer, osteoporosis and cardiovascular disease, as stated by Chang (2009).

Based on the problems above, the researcher is interested in conducting research on the relationship between stress and menstrual cycle disorders in young women at TELADAN Pematangsiantar Private Middle School in 2018 in jin. Singosari Number 3 Pematangsiantar.

### **Formulation of the problem**

Based on the background above, the formulation of the problem is how is the relationship between stress and menstrual cycle disorders in young women at TELADAN Pematangsiantar Private Middle School in 2018

## **METHODS**

### **Types of research**

The type of research used is an analytic survey with a cross-sectional design where the independent variables and the dependent variable are examined simultaneously. To find out the relationship between stress and menstrual cycle disorders in adolescents at the 2018 TELADAN Pematangsiantar Private Middle School.

### Research sites

Research Locations This research was conducted at the TELADAN Private Middle School Pematangsiantar, while the reasons for choosing the location were as follows:

- a. This location has never done previous research on the relationship of stress with menstrual cycle disorders in young women.
- b. There is permission from the institution where the research is conducted.
- c. The number of samples for this study is available.
- d. Reachable research locations make it easier for researchers to conduct research.

### Research time

This research was conducted on 20 to 24 August 2018.

### Data analysis

Data analysis was carried out in stages which included univariate, bivariate,

#### 1. Univariate analysis

Univariate analysis was performed to get an overview of each dependent variable and independent variable. The data will be presented in the form of a frequency distribution.

#### 2. Bivaria analysis

Bivariate analysis is to determine whether there is a relationship between the independent variables (categorical) and the independent variables (categorical) by using the Kai Square Test or Chi Square.

To determine the significance of the results of statistical calculations, a significance limit of 0.05 was used. Thus if the p value  $< 0.05$  then the calculation results are statistically significant and if  $p > 0.05$  then the results of the statistical calculations are not significant.

## RESULTS AND DISCUSSION

### Contents Results and Discussion

#### Distribution of Stress in TELADAN Pematangsiantar Private Middle School Young Women in 2018

Based on the results of research conducted at the TELADAN Pematangsiantar Private Middle School, it can be seen that based on the stress of the respondents in the normal category, there were 8 people (17.0%), moderate stress category, 8 people (17.0%), and 31 people with severe stress ( 66.0%).

Adolescence is the most critical period in one's life. Many things are experienced and happened in adolescence. If this period is not handled wisely and handled properly, stress will arise which will have an impact on maturity and interfere with health (Tarwoto, et al, 2010).

Being a teenager means going through a tough process that requires a lot of adjustments and creates intelligence. Stress becomes very difficult and even unavoidable in modern life like today. Everyone has experienced stress, including teenagers. The

problems that trigger the most stress among adolescents are problems of the social environment, love, and the search for identity. Normal people can adapt to long-term stress or short-term stress so that the stress passes (Mumpuni and Wulandari, 2014).

### **Distribution of Menstrual Cycle Disorders in TELADAN Pematangsiantar Private Middle School Girls in 2018**

Based on the results of research conducted at the TELADAN Pematangsiantar Private Middle School in 2018, it can be seen that 33 respondents (70.2%) had normal menstrual cycles, 14 respondents (29.8%) had polymenorrhoeic menstrual cycles, and none respondents who have menstrual cycle disorders oligomenorrhea and amenorrhea.

Adolescence is a period of transition from childhood to adulthood. This period is often referred to as puberty. According to some experts, in addition to the term puberty, the term adolescence is also used. Puberty is used to express biological and physiological changes that occur rapidly from childhood to adulthood, especially reproductive changes. Meanwhile, the term adolescence places more emphasis on the psychosocial changes or maturity that accompany puberty (emotional, social, intellectual, and moral). Adolescents are between the ages of 10-18 years (Tarwoto et al, 2010).

Menstrual cycles in women normally range from 21-35 days and only 10-15% have menstrual cycles of 28 days with a menstrual duration of 35 days, some 7-8 days. The amount of blood lost is about 30-40 cc. The peak is on the 2nd or 3rd day with the use of about 2-3 pads per day (Manuaba, 2009).

### **The Relationship of Stress to Menstrual Cycle Disorders in Young Girls at TELADAN Pematangsiantar Private Middle School in 2018**

In conclusion, there is a relationship between stress and menstrual cycle disorders in grade 3 young women at TELADAN Pematangsiantar Private Middle School in 2018.

Stressors are known to be etiological factors of many diseases. One of them causes physiological stress, namely menstrual disorders. Most women experience a number of changes in menstrual patterns during their reproductive years. In its effect on menstrual patterns, stress involves the neuroendocrinology system as a system that has a large role in female reproduction (Sriati, 2015).

Disturbances in menstrual patterns involve integrative regulatory mechanisms that affect biochemical and cellular processes throughout the body, including the brain and psychology. The influence of the brain in hormonal reactions occurs through the hypothalamus-pituitary-ovarian pathway which includes multiple effects and feedback control mechanisms. This system will stimulate the release of a hormone from the hypothalamus, namely corticotropin releasing hormone (CRH). This hormone will directly inhibit the secretion of GnRH from its production site in the arcuate nucleus. This process likely occurs through the augmentation of endogenous opioid secretion. Increased CRH will stimulate the release of endorphins and adrenocorticotropic hormone (ACTH) into the blood. Endorphins themselves are known to be endogenous opiates whose role is proven to reduce pain.

## CLOSING

### Conclusion

The conclusions from the research on the Relationship between Stress and Menstrual Cycle Disorders in Young Girls at the TELADAN Pematangsiantar Private Middle School in 2018 are as follows:

1. The statistical test results show that there is a relationship between stress and menstrual cycle disorders in young women at the TELADAN Pematangsiantar Private Middle School in 2018.
2. Most of the respondents experienced severe stress as many as 31 respondents (66.0%), mild stress category as many as 8 respondents (17.0%) and normal category as many as 8 respondents (17.0%).
3. Respondents who experienced normal menstrual cycle disorders were 33 respondents (70.2%), respondents who experienced polymenorrhea menstrual cycles were 14 respondents (29.8%), and no respondents experienced oligomenorrhea and amenorrhea menstrual cycle disorders.

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