

The Correlation between Personality and Family Support and Subjective Well-Being for Patients with Diabetes Mellitus

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Abstract--- *Diabetes mellitus is a chronic disease characterized by elevated blood sugar levels because the pancreas does not produce enough insulin. People with diabetes mellitus who looked at the negative condition need to be reviewed from a psychological perspective. Factors that may affect subjective well-being (SWB) are the support of family and personality. The purpose of this study was to analyze the relationship between family support and patients' personality with subjective well-being in patients with Diabetes mellitus. This research used a cross-sectional design. Respondents were selected from five primary health centers with the highest number of DM cases in Surabaya, Indonesia with a total of 102 respondents. Data were collected using a personality questionnaire, family support questionnaire and SWB questionnaire. Furthermore, the data were analyzed using Rank Spearman test with a significance level < 0,05. The result showed that 81 respondents were female, aged 46-55 years and married. There was a significant correlation between personality and SWB ($p = 0,008$; $r = 0,260$). In addition, the family support also significantly correlated with SWB ($p = 0,011$; $r = 0,249$). The higher the value of positive personality and family support they had, the higher the value of subjective well-being.*

Keywords--- *Personality; Family Support; Subjective well-being; Diabetes Mellitus.*

I. INTRODUCTION

Diabetes mellitus (DM) is a chronic disease that occurs when the pancreas does not produce enough insulin as a regulator of sugar level in the blood so this rises and causes serious damage to many systems, especially nerves and blood vessels [1]. Currently, DM is a health problem affecting people all over the world whose incidence has increased. In 2017, 425 million people in the world were diagnosed with DM and it was estimated that their number would increase by 48% to 629 million by 204. Based on world diabetes statistics, Indonesia is ranked sixth with a total of 10.3 million DM sufferers [2]. DM ranked 10th in the number of diseases in 2017 in Surabaya [3]. Basic Health Research (Riskesdas) conducted by the Ministry of Health Republic of Indonesia (2017) states that 48% of average people in the age range of 35-44 years old are diagnosed with DM [4].

Based on the results of a preliminary study from April 24-25, 2018, the number of men and women with DM from January to March 2018 was 2,195, spread in five primary health centers with the highest number of DM cases in Surabaya. This number is spread in the following regions: West Surabaya (primary health center Asemrowo), Central Surabaya

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(primary health center Kedungdoro), North Surabaya (primary health center Tanah Kalikedinding), South Surabaya (primary health center Jagir) and East Surabaya (primary health center Klampis Ngasem).

Individuals diagnosed with diabetes mellitus (DM) will experience functional changes in the body [5]. This can cause negative emotions such as stress, depression and hopelessness that are not good for their mental health and can worsen the condition of the illness. The negative views of DM sufferers about themselves and a number of psychological problems are indicative of the existence of low subjective well-being [6]. A preliminary study conducted at one of the primary health centers in Surabaya found that some sufferers expressed anxiety and worry about their health conditions especially when blood sugar levels increased dramatically. Patients feel less satisfied and less happy living their lives because daily activities such as work productivity and eating patterns are limited. Patients often feel jealous of others who are healthier and free to do anything without any restrictions. On the other hand, some sufferers say that their family and partners have an important role because they often provide support when they feel stressed.

The effects of the disease on people with DM who view themselves negatively need to be reviewed from a positive psychological perspective to avoid maladaptive coping and increased stress. The positive meaning of life is important so individuals with various backgrounds can achieve satisfaction in their living conditions. A person's high assessment of his life satisfaction will make a person live life more positively. The positive outlook of DM sufferers on themselves is an indication of high subjective well-being [7].

Subjective well-being is understood as a subjective evaluation of a person's whole life including affective evaluation of the existence of positive and negative emotions or feelings as well as cognitive in the form of happiness and satisfaction in life. The basic aspects of subjective well-being are life satisfaction, positive affect (PA), and negative affect (NA) [8]. Positive influence has been defined as the state in which a person is enthusiastic, active and alert, with pleasant involvement. While negative effects are often measured on a depression scale and contain stress that is included in negative feelings [9].

Lykken and Tellegen (in Diener, 2009) explained that personality exerts a 50% influence on the formation of subjective well-being [10]. Extraversion and neuroticism have a relationship to one's subjective well-being. Extraversion personality shows high enthusiasm, likes to talk in groups, and shows concern for oneself [11]. Whereas neuroticism describes the characteristics of someone who experiences emotions that tend to be unstable in dealing with stress [12]. The characteristics that affect individual happiness are the status of marriage because it is considered to provide quality and purpose in life to improve one's well-being; social support from the family and community environment can foster subjective well-being [13]. Utami's research (2012) revealed that there is a relationship between religiosity and stress management in individuals which impacts well-being [14].

In general, the factors that influence subjective well-being in a person are well known from a previous study. However, these in people with DM in the Surabaya region are still unknown, all depending on the culture, economy and habits of the local community. Efforts are needed to foster a positive assessment of the satisfaction of life of DM sufferers so as to create high subjective well-being. This study aims to determine the relationship between personality and family support and subjective well-being in patients with DM.

II. METHOD

The study design used was correlational descriptive with a cross-sectional approach. The population used in this study was all patients with DM in the work area of the primary health center which consists of Asemrowo, Kedungdoro, Tanah Kali Kalikedinding, Klampis Ngasem and Jagir. Samples were obtained using Proportional Random Sampling

techniques, that is done by taking subjects from each region in balance with the overall population of each region. Then the sample was taken randomly according to the inclusion criteria: 1) DM sufferers who are willing to be the subject of research, 2) DM diagnosed patients for more than one year, 3) DM sufferers of productive age range between (35-55 years), 4) DM sufferers of Islamic religion. The exclusion criteria include sufferers do not have other diseases or DM complications such as coronary artery disease (coronary heart disease), diabetic gangrene, and cataracts. The sample in this study consisted of 102 respondents, 15 from the working area of Primary health center Asemrowo, 14 from the working area of the Kedungdoro Primary health center, 29 from the working area of Tanah Kalikedinding Primary health center, 20 from the working area of the Klampis Ngasem Primary health center, 24 from the working area of the Primary health center Jagir. Data for the independent variables includes personality and family support, while the dependent variable data was obtained from filling out a questionnaire about subjective well-being. The data collection process was carried out on 12-20 July 2018 in the work areas of Asemrowo, Kedungdoro, Kalikedinding Land, Klampis Ngasem, Jagir.

The instrument for subjective well-being research was obtained from research conducted by Sabiqotul Husna in 2014 based on the subjective well-being aspects proposed by Diener (2000) which included four aspects namely, Life Satisfaction, Satisfaction with Important Domains (Satisfaction in the Important Domain), Positive affect (PA), Negative affect (NA) [15]. The questionnaire consisted of 57 items but the researchers only used 24 because there were statements that had the same meaning so one was chosen to improve respondents' efficiency in answering and had passed the validity and reliability tests. The validity test result is 0.514 and the reliability test result is 0.938. The scoring category uses a Likert scale consisting of Very Inappropriate, Not in Accordance, Accordance, In Accordance which has favorable and unfavorable questions.

The instrument for measuring individual personality extraversion and neuroticism was John and Srivasta's BFI (Big Five Inventory) [16]. This BFI has 44 items in accordance with five traits namely Extraversion, Agreeableness, Conscientiousness, Neurotics, and Openness to experiences which have been translated into Indonesian Izzah (2016) which has reliability in each dimension, namely extraversion (0.88) and neuroticism (0.88) .84). The validity of the questionnaire uses the expert judgment which states that the questionnaire is quite valid. The personality questionnaire consists of 16 items and used a Likert scale that has favorable and unfavorable questions [17].

The family support questionnaire is used to determine the level of family support in sufferers. It was adopted from the research done by Kurniawan (2016) which had been tested for validity and reliability with the following results: validity = 0.4821 and reliability = 0.950. The aspect of family support was measured in 3 domains, namely, informational support, instrumental, emotional support and self-esteem. Each family support domain consists of 4 question items. The questionnaire uses questions by selecting answers that consist of 4 criteria, i.e., starting from options always to never [18].

Analyzing the data was done with Spearman's Rho statistical correlation test with a significance level <0.05. The ethics of this research was conducted by the Ethics Commission of the Faculty of Nursing, Airlangga University, Surabaya, with the number 1000-KEPK.

III. RESULTS

Based on Table 1, the characteristics obtained by the respondents, in terms of age, showed that the majority of respondents were female, as many as 81 respondents (79.4%) and the average age was 46-55 years, as many as 91 respondents (89.2%). 80 respondents (78.4%) were married. Unemployment is a work status that is commonly found in people with DM in the Surabaya area, as many as 59 respondents (57.8%).

Table 1 Distribution of demographic characteristics of people with DM

No	Respondents' Demographic Characteristics	Category	f	%
1.	Sex	Male	21	20,6
		Female	81	79,4
2.	Age	Late adulthood (35-45 years)	11	10,8
		Early Elderly (46-55tahun)	91	89,2
3.	Married Status	Single	1	1,0
		Married	80	78,4
		Widower (male)	3	3,0
		Widow (female)	18	17,6
4.	Occupation	Civil servant	2	2,0
		Private employees	12	11,8
		entrepreneur	25	24,5
		Retired	4	3,9
		Does not work	59	57,8

Based on Table 2, personality variables in patients with DM in the Surabaya region showing extraversion for as many as 89 respondents (87.3%) whereas for neuroticism was lower, with 13 respondents (12.7%).

Table 2. Relationship between personality and Subjective Well-Being

Personality	Subjective Well-Being				Total		P value	r
	High		Low		N	%		
	f	%	f	%				
Extraversion	89	87,3	0	0	89	87,3	0,008	0,260
Neurotism	12	11,7	1	1,0	13	12,7		
Total	101	99,0	1	1,0	102	100,0		

Table 3 shows that there is a relationship between family support and Subjective Well-Being. Family support variables indicate that the family is active in increasing the health value of people with DM. The number of respondents with positive family support was 88 respondents (86.3%) while 14 respondents (13.7%) had negative family support.

Table 3. Relationship between family support and Subjective Well-Being

Family Support	Subjective Well-Being				Total		P value	r
	High		Low		N	%		
	f	%	f	%				
Positive	88	86,3	0	0	88	86,3	0,011	0,249
Negative	13	12,7	1	1,0	14	13,7		
Total	101	99	1	1,0	100	100		

IV. DISCUSSION

Subjective well-being is defined as the overall assessment of humans about their lives and their emotional experiences. It includes broad assessments, such as life satisfaction, health satisfaction assessments, and special feelings that reflect how people react to events and circumstances in their lives [10].

Three components in the tripartite subjective well-being model are related to people who are satisfied with life, tend to experience positive emotions often, and rarely experience negative emotions. Individuals who have low subjective well-being will feel dissatisfied with their lives and conclude that their lives are not going well. The individual will experience a little excitement and more often feel negative emotions such as anger or anxiety which affect psychological value and

behavior [19]. Factors that can affect one's subjective well-being include demographic factors (sex, work status, religiosity, and family support), contextual and situational factors, and personality [20]. The results showed that the majority of respondents had high subjective well-being values. Out of the 102 respondents, only 1 has a low rating of subjective well-being.

Schnettler et al. (2015) explain that family support has a greater effect on happiness and emotional support when traumatic conditions occur. A research study in America states that family support is very important for the development of an individual because it can affect the level of happiness and satisfaction of life [21]. This study shows that DM sufferers have a high value of positive family support and subjective well-being, with 88 respondents (86.3%). The average form of support provided by the family is a form of emotional support. Individuals who have high family support will be more optimistic in dealing with their health problems and more positive in interpreting the life they lead.

The two personality types that are found to be most related to subjective well-being are extraversion and neuroticism [22]. The results of the study showed that the majority of respondents have extraversion personalities with high subjective well-being, 89 respondents (87.3%). 12 respondents (11.7%) were known to have high neuroticism and subjective well-being personalities, but 1 respondent (1.0%) had low neuroticism and subjective well-being personalities. In summary, Cervone & Pervin (2012) stated that personality expression can change along with the development process. Many social institutions can play a role as sources of personality formation. It is known that the average respondent is easy to open up and socialize [23]. This can be known when the interview respondents were not ashamed and did not cover up about the condition of their illness. Respondents also admitted that they often participated in programs in primary health centers related to diabetes mellitus, such as being active in prolanis. The openness of the DM sufferer to the outside world makes his psychological condition better because of the support and assistance from outside. It can cause a sense of enthusiasm in life and a high level of optimism of being able to recover from the illness.

There is research that reveals that different sets of genes that can affect the happiness of women and men have an impact on subjective well-being [7]. A study by Meisenberg and Woodley (2015) in (Batz & Tay, 2018) also states that some indicators of gender equality and status of women are associated with higher life satisfaction but not necessarily with positive welfare so there is no significant influence between sex and subjective well-being conditions [24]. This is the same as the results of a study conducted on a total of 102 respondents, 80 of whom were female and had high subjective well-being values and 1 female respondent who had low subjective well-being values.

The status of one's work determines the quality of subjective well-being. A study conducted by Campebell, Converse and Rodgers (1976 in Diener & Ryan, 2017) found that people who do not work are unhappy. Other research also states that people who enjoy their jobs tend to have higher subjective well-being in contrast to unemployment which harms subjective well-being [10].

According to the results of the research, most DM sufferers in the Surabaya area with an average age of 45-55 are not working. This the age where the level of productivity and physical condition start declining. The phase of not working resulted in individuals losing income needed for meeting their needs. In this case, the family is necessary to help financially. DM sufferers in the Surabaya area have positive family support both informationally, instrumentally and emotionally.

V. CONCLUSION

Family support and personality have a one-way relationship with subjective well-being in people with DM in the health center area in Surabaya. The high value of family support and the increasingly positive personality possessed by

respondents are followed by an increase in the value of subjective well-being. Health centers should be able to provide educational media and information for DM patients in order to increase their value of subjective well-being so that positive influential factors can be implemented and negative influential factors can be controlled.

CONFLICT OF IINTEREST

No conflicts of interest have been declared.

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