

HOW HEALTH BELIEF OF DIABETES MELLITUS TYPE 2 IN ADHERENCE CONSUME DRUG: A PHENOMENOLOGY STUDY

Istianna Nurhidayati¹, Arlina Dhian S², Mawardi Mawardi³ & Fia Nur Haryani⁴

^{1,2,3,4}Lecture of Bachelor Nursing Program Study, Stikes Muhammadiyah Klaten

Abstract

Adherence of people with type 2 diabetes mellitus in taking medication is the key to successfully managing type 2 diabetes mellitus. People with DM have the ability to control their disease obediently to taking medication which is influenced by the ability to understand perceptions of health beliefs. The aims of this study was explored understanding health beliefs of patients with type 2 diabetes mellitus in adherence to taking medication. This study used a qualitative design with a phenomenological approach. This study used 7 participants. Analyzed data used Colaizzi with thematic analysis manually. The results of the study obtained 14 themes about the health trust of patients with type 2 diabetes in adherence taking medication. The fourteen themes were knowledge about type 2 diabetes mellitus, signs and symptoms of type 2 diabetes mellitus, causes of increased blood sugar, how to regulate blood sugar, adherence with medication, adherence motivation to take medication, diabetes mellitus type 2 is at risk, measures to reduce type of diabetes mellitus 2, the severity of type 2 diabetes mellitus, the body is more stable, the time to take medicine, the obligation and feeling of the body, acceptance of family and sincerity, and the hope of people with type 2 diabetes mellitus on quality health services. The conclusion of this study was perceptions of health beliefs of patients with type 2 diabetes mellitus who good can improve medication adherence. It happens because of the perception of vulnerability, seriousness, obstacles, cues to act and perceived benefits and good self-confidence so that people with type 2 diabetes mellitus choose to obey taking medication.

Keywords: Health Belief; Medication Adherence; Type 2 Diabetes Mellitus.

Article info: Sending on October 21, 2021; Revision on July 06, 2022; Accepted on July 25, 2022

*) Corresponding author:

Email: istiannanurhidayati@gmail.com

1. Introduction

Diabetes Mellitus (DM) is one of the health problems of serious people facing the world. The World Health Organization (WHO) displays more than two-thirds (70%) Of the global population will die of unctagious disease. The WHO (2010) stated, diabetes had been the cause of premature death (the age of < 70 years) the fourth largest in the world after cancer, cardiovascular disorders and chronic respiratory disorders. PTM caused 63% of worldwide deaths by killing 36 million annually (Central Java Provincial Health Office, 2017; The Ministry of Health RI, 2018). The International Diabetes Federation (IDF, 2017) defined Diabetes to be one of the challenges of a health problem in the 21st century, and is not curable, tends to increase annually but is largely preventable.

Diabetes Mellitus is a disease of metabolic disorder chronic due to the pancreas does not produce enough insulin or not able to use insulin

effectively resulting in the occurrence of glucose concentration in the blood (hyperglycemia). The International Diabetes Federation (IDF, 2017) states Southeast Asia has the lowest prevalence of Diabetes (3.5%). Indonesia ranked third with a total of 27.7 million people (IDF, 2017). The prevalence of DM increases according to age, but at the age of ≥ 65 years tends to decline. Gender affects the prevalence of DM, women (2.4%) tends to be higher suffering from diabetes mellitus than in males (1.7%)(The Ministry of Health RI, 2018)

Data on Central Java Health Profile 2017 showed diabetes mellitus was ranked second noncommunicable diseases with the number of cases as much as 19.22% and most in Central Java province. Klaten Regency in 2017 has increased the prevalence of the most significant DM was 10.35% from 0.87% in 2016 (Central Java Provincial Health Office, 2017). Data from the health office of Klaten District in 2018 showed the number of diabetics experienced a significant

increase of 19,741 inhabitants or equal to 14.88% of the number of people in Central Java (Klaten District Health Office, 2018). The increase in the prevalence of DM a result of lifestyle changes as the world grows more modern.

Uncontrolled DM can cause many impacts suffered by diabetes mellitus. The perceived impact presence of unwanted complications by the sufferer, increased morbidity and mortality, double burden in health care, as well as a challenge to be faced in the development of health sector in Indonesian. The treatment of Non Communicable diseases often takes a long time and requires substantial costs that can disrupt the economy of sufferers and families and countries (Central Java Provincial Health Office, 2017).

Factors that play a role in controlling blood glucose levels in patients with diabetes mellitus (DM) are pharmacologically adherence to patients with glucose-lowering drugs. Adherence is individual behaviour (eg: taking medication, complying with a diet or making lifestyle changes) according to therapeutic and health recommendations. The level of obedience can begin from the action of heeding every aspect of the recommendation to adhere to plans. There are several factors that are the reason why some people obey and others do not (Kozier, Erb, Berman, & Synder, 2010).

The health confidence theory describes the behavior of individuals influenced by the perception and belief of the individual itself. Factors from individuals influencing decision making determine what are good sufferers among other perceived vulnerabilities, perceived pain hazards, perceived benefits, perceived barriers and cues to action, as well as Confidence (Priyoto, 2014). (Karimy, Araban, Zareban, & Taher, 2016) expressed health confidence used as a reference framework for designing intervention programs in an effort to improve adherence to women's self-behavior with diabetes and Self-efficacy plays a role in developing self-care behaviour.

The research of (I.nurhidayati, F.Suciana and I.Zulcharim, 2019) showed the relationship of Health Belief had a relationship in adherence with drug care in patients in type 2 of DM with a adherence score of minimum 3, maximum 8 and average 6.34 ± 1.413 . The results of sufficient analysis showed a positive correlation that was with the value $R = 489$ which means that the greater the health confidence, the higher the adherence of medicines in patients with type 2 DM in Puskesmas Karangnongko. The dominant perception of the study was the perception of vulnerability. Adherence behaviour of drug sufferers of type 2 DM will arise if a person felt at risk of illness can become more severe and arise complications. (Ulum, Kusnanto, & Widyawati, 2014) exposing

the most dominant components of health belief in the adherence of diabetes mellitus is the perception of seriousness.

2. Method

A descriptive phenomenological approach was used in this study to be able to explore in detail and in depth a particular group or population, there were 7 participants. Analysis of data in this study used Colaizzi.

3. Results and Discussion

This research had identified 14 of themes. Theme 1: Perception of type 2 DM. Perception of diabetes mellitus type 2 according to participants was a disease shown by the results of high blood sugar that occurs at the age of more than 45 years with the risk factor of heredity and the presence of excess weight. Participants expressed diabetes had a lifelong illness and can cause other diseases. Phrase participants:

"t's diabetes, when I was checked it got high, in that time it was about 365 gr/dl..." (Mrs. Tukini)
"... It's mostly people above 40 years old who gets diabetes.... " (Mrs. Mul)

Risk factor disclosed is overweight, this is in accordance with the theory of (Huether & McCance, 2017) supported with Nasution, Siagian and Lubis (2018) research which explained obesity to be the most dominant factor in the event of type 2 DM. The research of (Widyawati, Sudibyo, & Failasufa, 2018) explained that diabetes is a lifelong disease that cannot be healed permanently. Another impact perceived by participants is type 2 diabetes mellitus can cause complications. It is in accordance with the theory of (Huether & McCance, 2017) that diabetes mellitus can cause complications in the form of acute or chronic complications.

Theme 2: Signs and symptoms of type 2 DM. The results of this study depict signs and symptoms that are perceived when high blood sugar is a sign in the body such as getting tired body and LIMC body, signs and symptoms in the foot, including pain of the legs and feet feel heavy, Urine, nerves, gastrointestinal tract and five senses: eyes. Phrase participants:

"my feet feels like it gets punctured" (Mrs. Mul)
"... I often peed, it can be like 4-5 times a day" (Mrs. Sipon, Mrs. Tukini, Mrs. Mul, Mrs. Narmi)

These symptoms correspond to the theory given by Darmono in Fitriyani (2012), one of the symptoms that will arise in diabetics is easy to get tired. Harismayanti (2017) in his quality studies identifying the changes that occur from DM namely physical changes in the form of blurred eyes, thirst, frequent urination, often hungry weight loss,

fatigue, tired, dizziness, cramps and sweat and weakness.

Participants' perception of the signs and symptoms expressed in this study supported the research of (Juwita & Febrina, 2018) who received research results with the theme of body response to changes due to DM including blurred vision, itchy body, Inflamed feet, increasingly thin bodies and weary bodies, the change of habit is often hungry, often sleepy, often BAK, and often thirsty.

Theme 3: Causes of increased blood sugar. The results of this research gained increased blood sugar due to fatigue, less activity, food consumed is not noticed and stress. Participants have a perception of excessive activity that can cause participants to feel exhausted can increase blood sugar levels. Fatigue in patients with DM can occur due to changes or physical and psychological disorders related to DM disease. Phrase participants:

"... If my blood sugar was exhausted directly up "(Mrs. Sipon)

"... Because of the lack of activity, I seldom work sports it used to be just sitting aja "(Mrs. Lastri)

Participants expressed too much thought to increase their blood sugar levels. The theory of (Price & Wilson, 2014) says emotional stress results in high levels of blood glucose. Ministry of Health (2015) displays if a person is stressed, the body will increase the production of hormone epinephrine and cortisol so that blood sugar rises and available energy reserves for the effectiveness. This is in line with the research conducted by (Izzati & Nirmala, 2015) who concluded the relationship between stress levels with the increase in blood sugar levels of DM patients.

Theme 4: How to regulate blood sugar. The results of a research interview with participants on the perception of type 2 DM patients to the disease, researchers get the result of participants' perception about how to regulate blood sugar. Type 2 DM disease is a disease whose blood sugar levels can be controlled. Perception of blood sugar participants will remain steady by doing how to regulate blood sugar. Participants expressed how to regulate blood sugar include: restricting eating sweet foods, carrying out drug therapies and conducting physical activity. Phrase participants:

"Many activities are as much as possible to move the body, sports, streets if the morning is an important motion, gymnastics also every day Friday here" (Mrs. Mul)

All participants received pharmacological therapy of OAD (antidiabetic drugs) oral. In Nanda, Wiryanto, Triyono (2018) research, expressed patients with type 2 DM who consume antidiabetic medication routinely have controlled blood sugar levels. WHO reported the success of patients in conducting long-term therapy of chronic diseases

evidenced by the results of laboratory check blood glucose decreased to 70-130 gr/dL.

Some participants in this study expressed physical activity to be a way of regulating blood sugar levels. The physical activities described by participants are sports such as gymnastics and walking. (Black & Hawks, 2014) explained that exercise is essential for lowering blood sugar levels, because blood sugar is used by muscles and increases insulin usage. Physical exercise in the form of a fast road, swimming, jogging regularly 3-5 days a week for 30-45 minutes can help control blood sugar levels.

Theme 5: Obedience to taking medication. The results of this research illustrate the perception of adherence with diabetes mellitus type 2 medication in the category of taking the drug according to the time and number of doses, as well as the recommended health worker. Phrase participants:

"Yes that routinely follow doctor's advice, the medicine should be drunk can not stop" (Mrs. Tini, Mrs. Lastri)

Perception of participants was said to be obedient to take medication if appropriate health care officers are not allowed to forget medicine. The adherence expressed by the participants proved from the observation of adherence with the drug that researchers conducted, obtained participants before consuming the drug to see the type of drug that will be consumed and apply the amount of dose to be consumed. Participants take the drug according to the time prescribed by the health officer and do not consumption of drugs other than antidiabetic drugs.

Theme 6: The motivation to obey medication. The results of this study explain the perception of participants' adherence in taking the drug motivated by motivation. Although the previous participants were to ignore the disease DM is a disease that can not be healed and is a lifelong illness but the understanding does not break the expectations of participants, that health is the main factor to be expected. Phrase participants:

"... The family also supports, husbands and children say not to be exhausted and medicine should be drunk "(Mrs. Mul)

The motivation of patients with type 2 DM in complying with the therapy that affects the success of therapy. This is in line with the research of (Isnaini & Saputra, 2017) which explained the high motivation that the type 2 DM sufferers affect drug-taking adherence. Participants expressed adherent to the taking of medication at the time and according to health officers' advice. Aspects of adherence that the sufferers have in the motivation of participants to obey the drug, choice and relevance to the goal setting.

The results of this study in accordance with the theories submitted by (Kozier et al., 2010) That expose factors affecting obedience are one's motivation to heal and the perception of severity of health problems. The family as social support for other families members who are facing health problems, and has an important role in determining the decision to adhere to the recommended health measures. Research on Nuraisyah, Kusnanti and Rahayujati (2017) explained the support provided by families to patients with type 2 DM can increase the status of psychosocial, spirit, motivation and increase in self esteem because it is considered still useful and means For family can to form the behavior of management of DM regularly. This is in accordance with the research of Veranika in (Septiyani, 2016) stating there is a positif relationship between providing support to treatment adherence.

Theme 7: Diabetes mellitus type 2 is at risk. The results of this research illustrate the perception of the perceived vulnerability of diabetics type 2 of the whole participant belief that type 2 diabetes mellitus is a disease at risk can cause other diseases Divided into three categories, namely attacking the kidneys and heart, attacking the senses: eyes, slowing wound healing. Phrase participants:

"The diabetes can be at risk" (Mrs. Sipon, Mrs. Mul)

"... If there is a wound later difficult, there is also his pus "(Mrs. Tini)

All participants in this study believe that type 2 diabetes mellitus has a high risk of causing diseases affecting other organs. The belief is derived from the perception of participants stating that they are at risk due to diabetes mellitus type 2 disease.

Theme 8: Measures reduce the risk of diabetes mellitus type 2. This illustrates the meaning and meaning of the perceived vulnerability of diabetics of type 2 after knowing the perception of the vulnerability to the risks of the disease, which participants expressed measures to reduce the risk These include: Taking routine medications, periodic inspections, avoiding injuries and conducting physical activity. Phrase participants:

"Yes be careful not until there is a wound" (Mrs. Sipon)

"Sports, Healthy Movements" (Mrs. Wartu, Mrs. Mul)

Participants of this study revealed that they were at risk for other diseases caused by a type 2 diabetes disease. The growing risk of having a greater chance is increasing also the likelihood of a person behaving to reduce that risk (Priyoto, 2014).

Theme 9: Severity of type 2 diabetes mellitus. Participants have a sign that is considered

participants as a token of severity during the disease type 2 diabetes mellitus. The signs include: Minimal motion skills, Lima body, cannot road, and body condition that drop. Phrase participants:

"If drop lemes really, can not Ngapa-ngapain, cold Sweat continues to be Gemeteran" (Mrs. Mul, Mrs. Lastri)

Perception of severity was individual perception of perceived severity or feelings about the seriousness of illness or the consequences of leaving a medical and clinical action (Glanz in goddess 2018). This is in accordance with the theory of (Msn, Lee, & D, 2017) in her research, that a person who has a serious disease perception, then that person will demonstrate healthier behavior better. (Kosegeran, Ratag, & Kumaat, 2017) expressed the knowledge and attitude that is very stirring in responding to the disease diabetes mellitus. Patients with type 2 DM doing treatment or taking medication routinely influenced by the perception of the seriousness of the impact of diabetes mellitus type 2. The perception will increase the behavior of sufferers in the adherence with medication. Perception of severity has positive relationships with healthy behaviors. If the perception of individual severity is high then the individual will behave healthily (Taylor, et all. 2007 in Agustina and Murti 2016). Perception of severity is a stronger perception of encouraging people to adopt healthy behaviors, the greater the risk it feels, the more likely it is to engage in behavior to lower the risk.

Theme 10: The body is more stable. Things to know in the perception of the benefits of taking medication adherence is the potential benefit of the benefits perceived by the participants. Phrase participants:

"A sight to see it's so cetho..." (Mrs. Narmi)

"... Normal blood sugar again, 130 gr/dl "(Mrs. Sipon)

(Karimy et al., 2016) which describes the benefits perceived by the sufferer to the adherence to the patient's treatment regimen. The perception of benefits will be high if Type 2 DM sufferers realize the great benefits of adherence to taking medication against the disease suffered. he research of (Kim, Ahn, & No, 2012) Describes positive perception of seriousness, as well as benefits that improve health behaviour.

Theme 11: Time. All participants in this study participated in a chronic Disease management Program The results of this study reveal the barriers of participants when consuming the drug regularly that is shot in the theme of time. Phrase participants:

"If you want to take other medicines sometimes confused, where is the" (Mrs. Lastri)

(Tombokan, Ratu, & Tilaar, 2015) exposing the factors of medicine that affect adherence is a difficult treatment does not show the

healing direction, long time, the presence of side effects of the drug. The perception of the phrase perceived by the participants in adherence with medication shows that participants are able to face the obstacles and not change the health confidence of type 2 DM patients in the adherence with medication. This is evident from the observation of adherence with the drug in taking medicine and taking the drug has been implemented patients with type 2 DM in accordance with the recommendation of health workers. (Rusdianah, Martodiharjo, Andayani, & Hakim, 2016) explained the reason patients do not take medication is a solid activity, medication depleted and forgot to take medication.

Theme 12: Obligations and complaints are perceived. Things to know in the perception of cues to act obediently consume the drug in people with diabetes mellitus type 2 is depicted in the theme of obligations and complaints are felt. The results of this study display the cues used by participants identified in two sub-themes namely the obligation and sense of body. Phrase participants:

"... Take the obligatory medicine in accordance with the schedule of the hour itself "(Mrs. Sipon, Mrs. Narmi, Mrs. Tukini)

The research was draw of cues to action that are part of the health confidence component. Cues to act are events, people, or things that move people to change someone's behavior. Researchers think people with diabetes mellitus who are obedient to take medication have made medication as an obligation that must be served. The opinion is according to the research of (Bulu, Wahyuni, & Sutriningsih, 2019) which explained the patient's adherence action is a behavior done by patients with diabetes mellitus type 2 to carry out its obligation to take medication on time and Appropriate dosage is recommended.

(Putriana, Lestari, Barliana, & Hartini, 2017) explain the signals to act as determined by the motivation gained from the inside and outside. Motivation from inside appears when the patient is experiencing signs and symptoms of illness while outside motivation comes from family and health personnel. The study by (Yue, Bin, Weilin, & Aifang, 2015) expressed a gesture to act in relation to drug-taking obedience.

Theme 13: Family acceptance and sincere. The results of this study illustrate four categories which include: accepting willingly, accepted families, advice from the family and learning and forms of worship. Phrase participants:

".... my husband yes he had to be patient, pray to be given health" (Mrs. Warti)

(Nafisah, 2015) describes people who have a positive self-concept are people who have confidence, feel capable, have self-esteem and optimism. Issel Bacher in (Sofiana, Elita, & Utomo, 2014) explained that someone who has chronic

illness is always difficult to accept the fact that they should make a lifestyle change. Research of (Nafisah, 2015) explained the relationship of self-concept to the meaningfulness of life sufferers of diabetes mellitus type 2.

Participants conveyed the family became an important part of him to remain obedient to taking medication. Self-esteem has positive impact to improve one's health behaviour and affect the success of a health program (Vazini & Bariti, 2015). The knowledge and support given by the family and nearby people can encourage a person to perform one's actions in improving his or her health (Dehghani-tafti, Saeed, & Morowatisharifabad, 2015).

Theme 14: Quality health services. Hope sufferers of diabetes mellitus type 2 in health care is a picture of the expression that participants want to the future service. Participants revealed it to be a number of categories that include: Service procedures, Officer attitudes in service, reliability, source of information and empathy as well as effective care methods packaged in the theme of health services Quality. Phrase participants:

"... if you can read the brochure if there is explanation, let it be readable at home, do not forget" (Mrs. Tini)

The results of this research show the satisfaction of health service quality. All participants revealed that the General Service given at Puskesmas Kalikotes is good so that participants feel satisfied using the facilities in the Public health care. Health promotion is an education to individuals, groups or communities that are expected to improve health conducive and better health changes (Blum 1974; (Notoatmodjo, 2012)). Research conducted by (Restuning, 2015) exposing Health officer communication through diabetes education can improve the adherence of diabetic patients. The more often a person gets counseling, the better his behavior.

Health education can improve knowledge and healthy behavior when administered by appropriate methods and media (AVISAA, Nursalam, Ulfiana, 2013). The method of lecture with leaflets is very good to support the learning of basic simple and complicated and the material can be absorbed more (Hardiningsih, 2011). Research conducted by (Febriyanto, Sudaryanto, & Yuniartika, 2013) expressed the use of health education methods using lectures with leaflets more effective to increase knowledge than the method of lecture. Another study by (Martiyana, Huriyati, & Padmawati, 2018) expressed discussion with leaflets equivalent to a talk with a media back sheet in enhancing a person's knowledge, attitudes and beliefs.

4. Conclusion

This research aims to dig in depth about the health confidence in people with diabetes mellitus type 2 in the adherence with medicine in the work area of Kalikotes Puskesmas. Perception of people with diabetes mellitus type 2 to the disease is interpreted with the perception of diabetes mellitus type 2 of laboratory signs, signs and symptoms of diabetes mellitus type 2, the cause of increased blood sugar and how to regulate blood sugar. Perceptual perception of anti-diabetes medication sufferers of type 2 diabetes mellitus with the adherence to taking medication in accordance with the recommendation of health officers and the motivation to obey the medication obtained from oneself and families.

Meaning and meaning of the perceived vulnerability of diabetics type 2 sufferers prescribed with diabetes mellitus type 2 is at risk of attacking other organs (heart, eyes, and kidneys) and measures to reduce the risk by consuming routine drugs, examination and avoiding injuries and physical activity. The meaning and meaning of severity in patients with diabetes mellitus type 2 is with severe desolation that diabetes mellitus type 2 dangerous diseases and the presence of a sign of the perceived severity of the sufferer, covering the limper body feels heavy and can not wake up and Body condition that drop.

The meaning and meaning of the benefits of adherence to taking medication in patients with

diabetes mellitus type 2 is defined by the condition of a more stable body that sufferers include the body lightly, reduced urinary frequency, clear vision, can blood sugar decreases. The meaning and meaning of obstacles in obedience to taking medication in patients with diabetes mellitus type 2 is prescribed with time to consume other drugs simultaneously with the time of taking antidiabetic drugs. The meaning and meaning of the gesture to act obediently to take medication in people with diabetes mellitus type 2 is prescribed with a duty to the sufferer and the presence of the perceived weakness of limper body can not get up and the foot is difficult to use running.

The meaning and meaning of the confidence of people with diabetes mellitus type 2 is interpreted with family acceptance and sincere. Accepted by the family will increase the confidence of the sufferer to obey medicine, and the feeling of sincerity and resignation is made a belief can increase the confidence in the healing process of illness by means of taking medication.

Hope sufferers of diabetes mellitus type 2 in health services is interpreted with quality health services that include fast service procedures, friendly staff attitude, good and attention, effective health education with Lecture methods accompanied by leaflets.

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