

## Conference Paper

# The Experience of Adult Clients with Type 2 Diabetes Mellitus at the Cigugur Tengah Public Health Center

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**Abstract**

Type 2 diabetes mellitus is a health problem that tends to increase every year and has the most complications among other generative diseases. This study aimed at gaining a deeper understanding of the meaning of type 2 diabetes mellitus treatment for adult clients. The study used a qualitative approach with a phenomenological design. Data were collected through in-depth interviews, and field notes were analysed by applying the Collaizi technique. In total, five individuals were included in the study. The study included seven themes: risk factors for type 2 diabetes; changes experienced by the patients of type 2 diabetes; efforts made by the patients to overcome diabetes; behaviour towards diet and treatment, support from the family; expectations of the patients; and complications faced by the patient. For this reason, the authorities, especially nurses at the Cigugur Tengah Public Health Center, should continue to monitor and counsel DM patients so that the complications due to DM can be resolved as early as possible.

**Keywords:** experience, adult, type 2 DM

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## 1. Introduction

Diabetes mellitus (DM) is a metabolic disease that has the most complications, this is related to high blood sugar levels, where the disease occurs because one of the causes is heredity and unhealthy lifestyle factors. Currently DM not only affects the elderly, but adults can also develop DM. Most adults play a role as the backbone to meet the needs of themselves and their families so that a person does not pay attention to health and treatment recommended by medical personnel. The results of observations on 20 DM patients at the Central Cimahi Public Health Center and hospitals, about 50% of clients suffering from type 2 diabetes who took care of these health services were of

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productive age, namely adults with continuous high blood sugar results. The results of a preliminary study on 3 adult clients who have type 2 DM, it can be concluded that they cannot perform optimal treatment management of their disease, due to several factors, one of which is not having time to carry out routine control of blood sugar because they are busy working, not doing it. the right DM diet and boredom due to the long duration of DM treatment, so that it has an impact on continuously high blood sugar.

The diet that the patients run will last a lifetime and boredom can appear at any time [1]. There is a relationship between work status and compliance with diet management for type 2 DM patients [2]. The lack of compliance in implementing this control may be due to other influencing factors, such as factors environment, level of patient needs, degree of illness, medical personnel, and family, will increase the level of patient compliance. Lack of self-management and good treatment for DM causes the prevalence of DM to always increase. Globally, DM patients in 2014 amounted to 8.3% of the total population in the world and increased in 2015 to 387 million cases. Indonesia is a country that ranks 7th with DM patients. Indonesia Basic Health Research shows that type 2 DM patients in Indonesia have increased from 6.9% to 10.9% in 2018 [3]. The highest age range for DM patients was pre-elderly and elderly, namely 19.6% [3]. Adult age ranks second with its distribution, namely early adults 4.6%, middle adults 8.6% and late adults 14.8% [3]. One of the cities in West Java where diabetes patients tend to increase is Cimahi City. Data from the Cimahi City Health Office in 2019, shows that the number of people with type 2 DM in the city of Cimahi is 9414 people. Where the Central Cigugur region has the highest number of DM patients, namely 1034 inhabitants. Hence, this study aims to gain a deep understanding of the meaning of type 2 DM treatment for adult clients.

## 2. Material and Method

The design used in this research is qualitative with a phenomenological approach. Phenomenological design allows researchers to understand the uniqueness of individual life-world phenomena and because with this method researchers can directly explore client experiences. Participants in this study amounted to 5 people where saturation was achieved in the 4th participant and added by 1 participant to further ensure that the data This research is already saturated. This research uses research ethics guidelines for respect for person, benefit, and justice, as well as an Ethical Review and has received research approval from the Ethics Committee of Stikes General Achmad Yani, with letter No. 03 / KEPK / V / 2020.

This research was conducted in the work area of Cigugur Tengah Public Health Center. The interview was conducted at a place agreed upon by the participants, namely at the participant's house while still implementing the Covid 19 transmission prevention system, namely maintaining a distance of approximately 1.2 m, using a mask and face shield when the interview process took place. The research process was carried out in May 2020. Data collection used in-depth interview techniques. The duration of the interview is approximately 60 minutes for each participant. The tools used are interview guidelines, and an application in the form of a voice recorder found on cell phones Xiaomi type Lite 8. Apart from using cell phones, researchers also used field notes to record participants' non-verbal responses.

The data analysis technique used is the Colaizzi method where the researcher begins by reading back the raw data or transcripts from the voice recorder and field notes, then the researcher looks for the meaning or identifies each meaningful word of the participant. After the meaningful words are found, they are formed into categories, Then from each of these categories if there is a similarity in meaning, it can be formed into a sub-theme, after the sub-theme is formed then it is analysed into a theme. Furthermore, the researcher can describe all themes and sub-themes in narrative form to describe the experience of adult clients with type 2 DM.

### 3. Results

Participants who participated in this study consisted of 5 participants with an age range of 25 to 45 years. The criteria for participants in this study were participants who had experienced type 2 DM for more than 1 year. All participants resided in the Cigugur Tengah area, Cimahi city. The themes identified from the results of the study are: 1. Risk factors for type 2 DM, 2. Changes experienced by patients of type 2 DM, 3. Efforts made by patients to overcome DM, 4. Behaviour towards diet and medication, 5. Support from family, 6. Expectations of DM patients, 7. Complications of DM patients.

### 4. Discussion

#### 4.1. Risk factors for type 2 diabetes

This theme was identified because it found different factors from each participant. In this study, there were 2 categories of risk factors experienced by the participants, namely: Factors that could be changed, such as ignorance of DM, which was expressed by

the participant, "(P5-3). Knowledge is an important domain for changing more positive behaviour. Behaviour can be obtained through health promotion efforts. Health promotion is an important strategy to improve health status [4]. Health promotion can support the formation of healthy behaviour so that it can reduce risk factors for DM. The second category is factors that cannot be changed. This was identified because there were participants who said, "yes maybe There is also a hereditary factor, from my grandmother, my father has diabetes ". Risk factors that cannot be changed include age, family history of DM, genetic factors, and gender [5]. Biological aspects may cause pain to an individual, while behaviour is the individual's response to external stimuli. But in the end, behaviour and biological factors will influence one another. In other words, a person has a family history of suffering from DM, but if the DM person chooses to do physical activity and consume healthy food, it is possible to prevent DM [4].

## 4.2. Changes experienced by people with type 2 diabetes

This theme consists of 3 categories, namely: a. Physical changes experienced by patients, b. Psychological changes experienced by patients, c. Changes in activity experienced by patients. Physical changes experienced by patients in the form of signs and symptoms experienced at the beginning of suffering from DM and when there is a recurrence or increased blood sugar. When hyperglycaemia exceeds the threshold ( $\pm 180$  mg / dl), there will be signs and symptoms of glucosuria which will cause osmotic diuresis. As a result of osmotic diuresis, urine output (polyuria), thirst arises which causes a lot of drinking (polodipsi) [6]. The psychological changes that occurred in this study were the response of each participant to the diagnosis of the disease. The psychological responses that occurred in the participation of this study were fear, shock, worry, not being able to accept the situation, as well as surrender to the condition of the disease. The response stages can be grouped into five stages, which include denial and isolation, anger, bargaining, depression, and self-acceptance [7]

In this study there are changes in daily activities, especially interrupted work and other activities. A person is said to have a good quality of life if one of them is able to carry out his daily activities [8]. Meanwhile, quality of life related to health can be interpreted as an emotional response from patients to social, emotional, and work activities [9].

### 4.3. Efforts by patients to overcome DM

Health service seeking behaviour is an activity of a person who is carried out to find health care providers in order to achieve an optimal health degree [10]. To overcome the disease, participants had various efforts ranging from using herbal medicines, exercise, diet to carrying out various activities to overcome the symptoms they felt. From the participant's expression, there are 2 categories, namely: a. Use of herbal medicine. This drug is used by participants to lower or normalize glucose levels in the blood. In addition to conventional medicines, traditional treatment is one of the options for overcoming health problems [4]. Traditional treatment is treatment using various medicinal plants singly or several types of ingredients mixed together, high blood glucose levels can be overcome with medicinal ingredients that are made by yourself by boiling them, then drinking them in an effort to stabilize blood sugar [11]. Efforts in overcoming DM cannot be separated from non-pharmacology, such as living a healthy life which can be done by avoiding various things that can cause DM such as overeating [12].

### 4.4. Behaviour towards diet and medication

Adults have different activities, supported by diet and medication that must be lived for a lifetime, making the participants' behaviour in taking medication and diet deviate from what they should be. This theme is formed from 2 categories, namely: a. Behaviour towards diet. When the interview was conducted, the participants revealed that their behaviour towards the diet they were undertaking was not in accordance with what was recommended, this was because the five participants could not regulate their eating patterns. Behaviour is an activity or human activity, which can be observed directly or cannot be observed by parties. outside, the process of forming or changing behaviour is influenced by several factors originating from the individual himself [13]. Non-compliance is the behaviour of a patient who fails to follow a program that has been planned by health personnel [14]. Diabetics are required to carry out various arrangements related to eating arrangements [15].

The second category is Behaviour towards treatment. Participants' behaviour towards treatment also experiences deviations, because adulthood is very productive so there is often no time for treatment, especially routine control, besides that the health facility system likes to queue which makes participants feel lazy to carry out routine controls. The low level of medication adherence in DM patients is influenced by several factors including treatment and disease characteristics (complexity of therapy, duration of

illness and treatment provision), intrapersonal factors (age, gender, self-confidence, stress, depression and alcohol use), interpersonal factors (quality of patient relationships with health care providers and social support) and environmental factors [16].

#### 4.5. Support from family

The duration of DM treatment is a lifetime, so getting support from the family is needed to maintain consistency of participants in undergoing treatment. This theme consists of 2 categories, the first is emotional support from the family. Family support is an attitude, an act of family acceptance of family members, in the form of informational support, assessment support, instrumental support and emotional support. Therefore, the role of the family is very supportive in achieving successful care for DM clients at home [17]. In this emotional support the family has an affective function, where how to get it with family perceptions, the affective function itself is related to the internal function of the family to provide psychosocial protection and support to the family because DM disorders cause psychological disorders for the patients. The second category is Material / instrumental support from The instrumental support obtained by the family is a form of material assistance in the form of money and food that is needed by DM clients, where as a result of the disease many clients suffer from becoming weak and unproductive so that it has an impact on the family economy This disease affects a lot of productive age and most of them are men who are the main breadwinners. This will certainly have an impact on the economic sector of a family. This form of support can reduce stress because individuals can immediately solve problems related to the material. This is also in accordance with study conducted in Sukoharjo that found the theme of motivation in providing family support, this is one of the supporters so that humans get positive thoughts about the life they are experiencing at this time [18].

#### 4.6. Expectations of DM patients

Hope is a mechanism for anticipating the future by helping clients see their potential realistically. Some clients, especially those with loss, show a response to sadness, hopelessness, and helplessness. So hope can become a new energy that leads individuals to plan, act to achieve success [19]. DM requires lifelong treatment. Even so, almost all participants have high hopes for their health, namely they want to get back to normal as usual. Hope is the ability to plan a way out in an effort to achieve goals despite obstacles [11]. They made their motivation to recover as their goal. All participants in

this study had strong hopes for recovery and there were also those who made family members as their reinforcement and motivation to recover.

#### 4.7. Complications of DM patients

Physical and psychological changes will occur frequently with increasing age. In adulthood, it does not rule out various health problems, including complications due to DM if treatment is not done. In this study it was identified that the participants experienced complications with vision in the form of blurred vision. The complications of DM itself are various. The complications of DM itself can be classified into acute complications and chronic complications. The chronic complications of DM itself can be divided into 2: microvascular and macrovascular complications [6]. Diabetic retinopathy is a microvascular complication. In diabetic retinopathy cases, proliferative results occur due to progressive ischemia of the retina. This stimulates neovascularization which causes a large amount of leakage of serum proteins. This fragile neovascularization proliferates to the inside of the vitreous body, which when the pressure increases when it contracts, massive bleeding can occur which can cause decreased vision in a person suffering from diabetes which can cause blindness.

### 5. Conclusion

The experience of adult clients in undergoing treatment for type 2 DM in the community is very unique and diverse. This uniqueness starts from the response experienced by the participants, namely feeling worried, afraid, denying until someone has accepted their condition. The results of this study concluded that 7 main themes were identified, namely risk factors for type 2 diabetes, changes experienced by type 2 diabetes patients, efforts made by patients to overcome diabetes, behaviour towards diet and treatment, support from family, expectations desired by patients, and complications experienced by patients. With these results, it is suggested that for community nursing services, it is necessary to develop a model of health services for the at risk DM population in the community. This can be supported by increasing the competence of nurses through training in conducting nursing care for chronic diseases. Especially for Cigugur Tengah Public Health Center, to carry out continuous counselling so that DM complications can be resolved as early as possible.

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## Conflict of Interest

The author declare that they have no conflict of interest.

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