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Investigation of non-adherence to treatment causes in patients with type 2 diabetes: a phenomenological study

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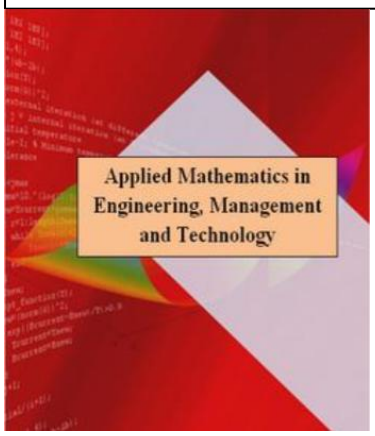

Introduction: Diabetes is a chronic disease that is due to the high incidence it is a major health problem. Because this disease is a multi-aspect disease, a quantitative research cannot address all its aspects in detail. To investigate the effective causes of "social - psychological -physical" impact on treatment, a qualitative study is needed in our society, but it is rarely discussed. The purpose of this study was to investigate the non-adherence causes of type 2 diabetic patients to treatment regimens.

Methods: In this qualitative study that is of phenomenology type, 13 type 2 diabetic patients were studied. First, a series of general information such as age, age of diabetes affection, duration of drug therapy, marital status, gender, and education were asked and recorded. Then, the general questions about the disease and the problems that people face are asked to and gradually they were presented with further details.

Results: In this study, 13 patients with type 2 diabetes were studied. The mean age of the studied patients was 3/1 ± 48/2 years, and the individuals age range varied from 33 to 64 years. Based on the responses given by the participants and data analysis, their non-adherence cause was divided to several general categories. These factors included the nature of the disease and its longevity, social factors, change of lifestyle and appropriate diet, injection form of insulin for treatment, economic problems which are discussed separately.

Conclusion: We can conclude that the most important factors associated with adherence to treatment in patients with diabetes include psychological factors, economic factors, and treatment type. Therefore, considering these affairs particularly by the centers associated with this disease is too important. Conducting more qualitative studies in this area is recommended in Iran.

Keywords: adherence to treatment, diabetes, phenomenological study

Background:

Diabetes is considered as one of the most common chronic diseases in the world, and due to the high incidence of the disease, it is accounted as a major health problem. Due to several reasons, the health systems attention recently in several countries has been focused on this disease (1, 2, 3, 4 and 5). Disease duration, disease treatment, glycemic control, and disease irreversible effects are the cases which turn the disease to the world health and social priorities (6, 7).

Different causes have been considered effective on the diabetes occurrence and exacerbation of which we can refer to diet, physical inactivity, and genetic and familial background. Because of the undeniable familial and genetic effect in creation of this disease, largely it can be said that the disease is preventable (8, 9, 10).
Diabetes treatment in the early stages includes diet and after that oral treatments, and in case that the initial treatment do not respond, the injection therapy is considered for patients (11, 12).

Because the affected individuals are associated with the disease through the lifetime and drug treatment of the disease requires the patients' enough knowledge and their appropriate acceptance against the drugs, so experience has shown that the individuals sometimes refuse to continue the treatment due to different causes of mental, social, and economical complications which lead to effect occurrence and higher mortality in these patients as well (13, 14, 15 and 16).

Investigation of the disease social aspects and its impact on people's non-adherence to treatment is one of the important factors that need special attention. Factors affecting adherence to treatment regimens in these patients have been investigated by numerous and varied studies. Because this disease is a multi-aspect disease, so a quantitative research cannot address all aspects in detail. To investigate the affecting causes of "psychological - social - physiological" on treatment, a qualitative study is needed (17, 18, 19 and 20) that in our society rarely has been addressed. Given the importance and limitations of the studies in this area,we decided to study the causes of type 2 diabetic patients non-adhere to treatment regimens.

Methods:

In this qualitative study that is of phenomenology type, 13 patients diagnosed with type 2 diabetes were studied in the laboratory. Our studied population consisted of individuals who were at least 5 years from the last time they had a diagnosis of diabetes and were treated with insulin. The individuals aged 35 to 65 years and were selected from the Shiraz and Yasooj diabetes clinics. After obtaining informed consent from patients for the study, researchers began by interviewing the patients.
Patient selection and interviewing process lasted about one month. The interview time with each patient was about 30 to 40 minutes. In cases of ambiguity and necessity, the answer questions were repeated in several stages. First, a series of general information such as age, diabetes age, and duration of drug therapy, marital status, sex, and education were asked and recorded.

Then, the general questions were asked about the disease and the problems that the patients face and gradually they were presented with further details. The interviews were recorded by the researcher. The interviews with the subjects were analyzed using Colaizzi method. First, the interviews were listened deeply, was wrote down, and vague points have been resolved. According to the questions type and the study objectives, the issues were classified and arranged according to the discussed topics. The obtained data was revised several times and the possible problems and ambiguities have been resolved.

Results:

In this study, 13 patients with type 2 diabetes were studied. The mean age of the studied patients were 49± 3/1 years, age range varied from 33 to 64 years.
Based on the given responses by the participants and data analysis, causes of non-adherence was divided in several categories. These causes include:
The illness nature and its longevity, social factors, change of lifestyle, appropriate diet, injection insulin for treatment, economic problems which are discussed separately. Table 1 shows the characteristics of the participants in the study.

Table 1. The study participants' characteristics

Variable / Participants	Age	Sex	Diabetes duration	Marital statues	Illness start time
Participant No.	45	Female	6	Married	5
Participant No.	54	male	7	Married	5
Participant No.	34	Female	10	Married	8
Participant No.	40	male	7	Married	7
Participant No.	59	Male	12	Married	10
Participant No.	63	Male	7	Married	7
Participant No.	44	Female	5	Married	3
Participant No.	54	Male	12	Married	9
Participant No.	55	Female	13	Married	11
Participant No.	39	Male	9	Married	8
Participant No.	43	Female	9	Married	8
Participant No.	32	Male	11	Married	10
Participant No.	40	Male	6	Married	5

- **The illness nature and longevity:**

Participant No. 1: "This is a long term illness and I cannot take medicine all my life, besides these drugs are bad for my body."

Participant No.7: 'repeated visits to the doctor make me tired and I cannot go to the doctor any more. " Contestant No. 9 also said: "whether I take drugs or not, this will be with me it in all my life time."

- **Social factors:**

The dominant participants stated that their children are impressed in the community and ridiculed by their friends at schools and community because of their parent s ' illness. For this reason, they refuse the repeated visits to health centers, especially in rural centers.

- **Lifestyle changes:**

Participant No.2: "Diets are very hard and exhausting. I am not able to run all the recipes provided by my doctor. "

Participant No 6 and 5: "In this situation, I should not eat any food and all foods are bad for me. What the condition is that all foods are harmful. " Both participants stated that they will not longer continue the diet.

Participant No. 8: "Although I observe all the commands, it is a really hard job. In this situation, my family has been involved with my illness and has to adjust their diet to me. "
Participant No. 10 stated that "daily exercise is not possible for me and cannot do most of the other sports."

- **patients treatment and injecting drug:**

Contestant No. 5, 9 and 11: "that I should have an injection every day and several times a day is agonizing for me." These participants said that no one is able to do daily injection in their entire life. Participant No. 8 stated, "I hate injections and prefer to take pills even if it cannot control my glucose ". Participant No.1: "I am not able to inject myself and the all day long one has to do it for me and involved with taking care of me. This case both for me and for my child has become a boring program".

Participant No.2: "In most cases, I forgot the insulin injections. Due to my own life, I have no insulin in many cases with myself as it should be kept in the refrigerator." I'm a lot more comfortable if it be pill".
Participant No. 11 stated that "I am not able to measure insulin doze and most of the times that I make a mistake in the injection which well makes glucose not to be controlled."

- **Economic problems:**

Participants in the study indicated that a large part of their family income was spent on their illness and affected the condition of their family welfare. Most said that the new diabetes drugs that have more convenient methods of measuring and injecting are very expensive, and they are not able to afford for this drug preparation. Another problem this people facing is underinsurance drugs that have caused these drugs to have a much higher price.

Participant No. 4: "I put enough pressure on my family, I don't want to impose cost of these expensive drugs on my family."

Discussion:

Treatment in diabetic patients is very important and complex issue that has many dimensions. The treatment goal is to control blood sugar and prevent diabetes in people. Glycemic control in these patients requires enough knowledge of the disease, the patient patience in treatment decisions of the disease (11, 12, 14). The individuals' non-adherence to treatment regimens is of the most important problems of these patients that needs more attention.
As the study results showed, the predominant causes of the individuals' non-adherence to treatment include long-term nature of diabetes, social determinants of diabetes, injection therapy, and economic problems.Other studies carried out in this area in Iran are very limited and mostly deal with other health dimensions among diabetes patients. In a study done in Iran, the facilitators of adherence to treatment regimens have been studied, and it has been seen that psychological as well as economic issues such been as major causes of non-adherence to treatment in these patients. Therefore in this study, it has been suggested that the patient's enough knowledge of the disease process to reduce anxiety and increase satisfaction with health insurance to solve the economic problems are of the most important factors that as a solution and motivation among people to accept and continue treatment (17).

Conclusion:

As the results of this study and other studies in this field have been obtained, we can conclude that the most important factors associated with adherence to treatment in diabetes patients included psychological, economic factors, and the type of treatment (14, 15, 16, 17 and 18).

Suggestions:

1. Analyzing diabetics economic problems and resolve these issues in the NHS;
2. Informing the patient about the nature of the disease, the treatment type, and the effects of leaving treatment;
3. Motivating the individual to continue treatment
4. Creating the patient care centers and psychological support for people with learning how to inject Insulin;
5. Conducting more ualitative studies in this field in the country

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Resources:

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