

The Effect of Logotherapy on Diabetes Mellitus Client's Meaning of Life

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Abstract

Diabetes mellitus is a chronic disease that caused meaning of life disturbance. Logotherapy is an intervention that could affect people life perspective. The purpose of this study was to analyze the effect of logotherapy implementation to the meaning of life in diabetes mellitus client. This study used quasy-experimental pretest-post-test with control group. The dependent variable was meaning of life, and the independent variable was the implementation of logotherapy. Sample in this study was 30 respondents, were taken by using consecutive sampling. The meaning of life were taken by using Purpose in Life Test (PIL Test) then analyzed by using Wilcoxon Sign Rank Test and Mann Witney U statistic test, $\alpha = 0.05$. The result showed logotherapy had significant effect on meaning of life in the treatment group ($p=0,001$). Statistical test Mann Whitney U Test showed that there was a difference meaning of life in control group and the treatment group after implementation of logotherapy. It could be concluded that the implementation of logotherapy has an effect to increasing the meaning of life in diabetes mellitus client. Further study was recommended to developing deeper study that related to logotherapy in diabetes mellitus client.

Keywords :Diabetes mellitus, logotherapy, meaning of life.

Introduction

Diabetes Mellitus (DM) is one of the chronic disease that can cause disturbance to one's meaning of life. It is due to the many DM's accompany symptoms and unable to accept the sick condition feelings, lead to a minor, middle and major psychological disorder. Live in a DM condition leads to psychological problems such as anxiety, depression, and ability disorder, which can worsen the patient's blood sugar levels, also incapability in life (Kodl and Seaquist, 2008). According to the result of the first stage interviews in RSUD dr Sayidiman, most of the clients were complaining about the sick condition they experienced. Clients said they feel unable to adapt with the sick condition and the new circumstances. They said that their life is meaningless, and they are just a burden for the people around them. These statements indicated that someone is having a meaning of life's disturbance.

The meaning of life holds an important roles in human's life and can be used as the purpose of the life. It makes people lives their lives positively in every situation, including sick condition (Bastaman, 2007). DM disease is a chronic disease that cannot perfectly healed, needs a life-time treatment, and cause a deep psychological changes within patient (Watkins & Teasdale, 2001). The early sign from DM diagnosis were memory disturbance (especially short-time), orientation, patient become agitated, anxious, and hyperactive. Some patients can be quiet, withdraw from society, and less active than before (Sadock, 2010).

Directorate General of Disease Control and Environmental Sanitation (Ditjen P2PL) stated that WHO predicts an increase of DM patients in Indonesia from 8.4 million in 2000 to about 21.3 million by 2030. While the International Diabetes Federation (IDF) predicts an increase in the number of people with DM in Indonesia from 9.1 million in 2014 to 14,1 million by 2035. Based on data from health research, the proportion of DM patients in Indonesia aged more than 15 years is about 12 million people. And 2.5% or 605,974 people are in East Java (Risksedas, 2013). From the preliminary study at RSUD Dr. Sayidiman Magetan, there are 5,879 DM

patient visits in May 2015 to June 2016. The increase of DM patients each year, shows the greater duty of health personnel in providing management. Included in helping find the meaning of life of DM patient.

Research on the meaning of life in DM clients concludes that clients with DM who have discovered the meaning of life, have gone through different stages in each individual (Khotijah, 2016). Other studies explain the existence of psychological symptoms as a protective factor for patients with DM to recover is social support and meaningfulness of life. Phenomenological studies on the meaning of life of DM clients also found that the meaning of the life of clients with chronic diabetes mellitus in Semarang is in a state of suffering and deepening of spiritual value (Rochmawati, 2011).

Suffering is closely related to the tragic events that come from sickness and illness, wrong and sin, and death and being left. Long lasting suffering can cause stress, loss of life meaning, depressive disorder, even mental disorder with suicidal risk (Rüpke, 2010) This will not happen if the patient can find the meaning of life from the state of illness. To find the meaning of life, someone must go through five stages in the discovery and fulfilment of the meaning of life that is the stage of suffering, the stage of self-acceptance, the stage of finding the meaning of life, the realization of meaning, and the stage of living meaningful life (Bastaman, 2007). One method to find the meaning of the client's life in the aspect of nursing psychology is by using logo therapy or also called logotherapy (Tristiana, 2016). Logotherapy is generally described as a psychological style that recognizes the spiritual dimension of man in addition to the physical and psychological dimensions (Bastaman, 2007). The initial goal of logotherapy is to achieve a meaningful and happy life. Logotherapy is indicated to overcome the disorders of somatogenic neurosis, psychogenic neurosis, and noogenic neurosis. Somatic neurosis is a disturbance of feelings related to physical hendaya, psychogenic neurosis sourced from emotional barriers and noogenic neurosis caused by the fulfilment of meaningful life desires (Bastaman, 2007; Braun et al., 2002). The program of Logotherapy was

designed to help participants clarify values that were particularly meaningful to them, set reasonable goals, assure that the goals would actualize the participants' meaningful values, set practical plans to achieve the goals, identify participants' assets and deficits that would affect their attempts to achieve their goals, and intentionally incorporate the assets and deficits into the plans to achieve the goals to actualize the values (Robatmili, Shahrak, Talepasand, Nokani, & Hasani, 2015).

Studies related to logotherapy showed an influence on the meaningfulness of life, improve the ability to interpret life, reduce the response of significant helplessness (Ukus, 2015; Sarfika, 2012; Kanine, 2011). Based on the results of the study researchers are interested to perform logotherapy on DM clients as a standard therapy companion, so the client is able to achieve and improve the meaning of life.

Method

The research design used quasi experimental non-randomized pre and post-test control group design. The study population was all DM patients in RSUD Dr. Sayidiman Magetan in August–October 2016. The sample was 30 respondents divided into 2 groups with 15 respondents per group taken by using consecutive sampling technique. Inclusion criteria include DM clients experiencing life-meaning disorders aged 21–59 years, and is already working. While the exclusion criteria were DM terminal clients, having physical disabilities that interfere with activities (for example blind, deaf).

The dependent variable is the meaning of life condition of DM client in RSUD dr Sayidiman Magetan and the independent variable is Logotherapy. Logotherapy is given individually in 4 sessions by researcher. The first session is to identify problems encountered, the cause of the problems, discuss problem solving and reveal the desired expectations of current conditions. The second session, client was given stimulation of the creative imagination, chooses the most desirable expectations, reason for choosing the hope, and trying to find the meaning contained in each of the reasons. The third

meeting is to find the meaning of life in the daily activities undertaken. In addition, the client is given a schedule sheet of daily activities so that clients can remember better what activities to do and take the meaning of the activity. The fourth session of logotherapy is the last session to evaluation was conducted that includes the client's opinions and feelings about logotherapy, mentioning the meaning of life found in everyday activities, revealing problems that have not been resolved and discussing follow-up plans with the therapist.

The researchers used two instruments, consists of Purpose In Life Test Questionnaire (Schulenberg, 2011) questionnaire, adapted from Crumbaugh and Maholick (1964) with sub-seading by the researchers (Crumbaugh & Maholick, 1964), for the collection of dependent variable data. And the standard procedure operational (SPO) of logotherapy, referring to the logotherapy workbook by Kanine (2011) and Setyowati (2014) tailored to the subject of the study, for the collection of independent variable data (Kanine, 2011; Setyowati, 2014).

The collected data was analyzed by Wilcoxon signed rank test to determine the difference before and after treatment (different pre-test and post-test). Statistical analysis of the results from the questionnaire was then performed statistically using Mann Whitney to analyse the comparison between the control group and the treatment group. The degree of significance is determined by the if value of sig $p \leq 0.05$ then the hypothesis of the study is accepted, which shown that there was influence of logotherapy on the meaning of life of the diabetes mellitus client.

Results

Characteristics of Respondents

The largest number of respondents is male which is 19 people (63.3%). In accordance with predetermined inclusion criteria, age is grouped into ages 18–59 years and the largest percentage aged 51–59 years is 60%. Most of the respondent's education is a high school graduate of 14 people (46.7%). Based on the work, the largest number of respondents worked as entrepreneurs. Meanwhile, according to the duration of DM, the

Table 1 Distribution of respondent characteristics in treatment and control group (n = 30)

Respondent Characteristics	Treatment Group		Control Group		Total	
	n	%	n	%	n	%
Gender						
Male	10	66.7	9	60	19	63.3
Female	5	33.3	6	40	11	36.7
Age						
<30	1	6.7	1	6.7	2	6.7
31-40	2	13.3	1	6.7	3	10
41-50	4	26.7	3	20	7	23.3
51-59	8	53.3	10	66.7	18	60
Education						
Primary School	4	26.7	3	20	7	23.3
Middle School	3	20	3	13.3	6	20
High School	5	33.3	8	53.3	14	46.7
College	3	20	2	13.3	5	16.7
Occupation						
Entrepreneur	1	6.7	2	13.3	3	10
Employee	4	26.7	4	26.7	8	26.7
Laborers / Farmers / Drivers	6	40	4	26.7	10	33.3
Government Employee / Army / Police	4	26.7	5	33.3	9	30
Diabetes Mellitus duration						
< 1 year	4	26.7	5	33.3	9	30
1-5 year	6	40	5	33.3	11	36.7
> 5 year	5	33.3	5	33.3	10	33.3

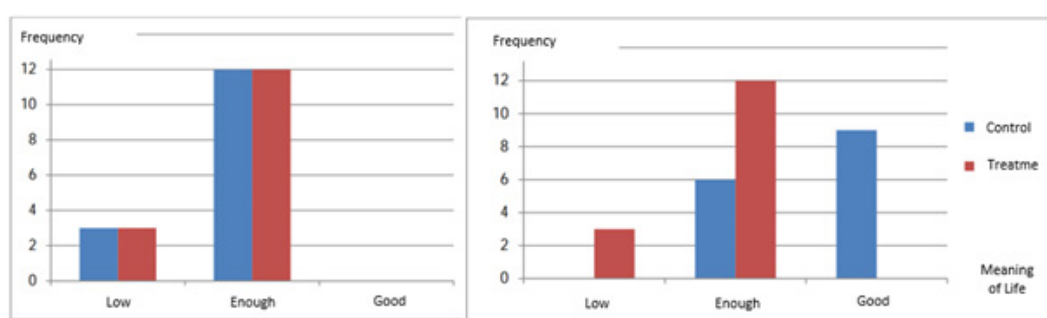


Figure 1 There are 6 respondents experiencing interruption of middle meaning of life and 9 respondents had a good meaning of life

Table 2 Data analysis of changes in the meaning of life of the DM client 's

Level Meaning of life	Treatment Group		Control Group	
	Pre	Post	Pre	Post
High	0	10 (66.7%)	0	0
Middle	12 (80%)	5 (33.3%)	12 (80%)	12 (80%)

Low	3 (20%)	0	3 (20%)	3 (20%)
Wilcoxon Sign Rank Test; p-value (within group)	0.001		0.317	
Positive Rank Test	11		0	
Negative Rank Test	0		1	
Ties	4		14	
Mann Whitney U Test; p-value (between group)		0.001		

highest data is 1–5 years, 36.7% (Table 1). Researchers do not provide type 1 or 2 types of DM because they aim to see the meaning of life for people with DM.

Effects of Logotherapy on the meaning of life of DM patients

The majority (80%) of the treatment and control group's meaning of life prior to the administration of logotherapy intervention showed that all groups experiencing impaired meaning of life in the form of middle meaning of life. The meaning of life of treatment group before and after intervention have different level of classification. There are 6 respondents experiencing interruption of middle meaning of life and 9 respondents had a good meaning of life (Figure 1).

The results of Wilcoxon sign rank test showed that there was a different meaning of life in treatment group between before and after intervention $p = 0.001$ (Table 2), but there was no difference of life meaning in control group $p = 0.317$. In the treatment group 11 respondents experienced an increase in the meaning of life (positive ranks).

Discussion

Based on the results of this study, almost 80% of DM clients who underwent treatment in hospitals Dr. Sayidiman Magetan experiencing impaired meaning of life. The data shows that there are 24 respondents experiencing enough meaning of life disturbance and 6 respondents with low meaning of life disturbance, with the total of respondent is 30 DM patients. The pretest result indicated that all respondents had a meaning of life disturbance. Respondents say ever since they suffered from DM, their life had change, experiencing heavy days,

disturbed daily activities and jobs, feeling a confused life, being a burden to families and people around, activities are always the same, bored and saturated with routines, and feel the world is unfair. Respondents felt that there were no purpose in life, loss of life satisfaction, lack of freedom, and even suicidal thoughts. However, respondents are responsible for their health, respondents are still trying to perform treatment and obedient to the advice of doctors and health workers. DM disease can lead to psychological changes such as changes in mental processes, behaviours, and neurological functions that cause clients to be quiet, anxious, withdrawn from society, and inactive in social relations (Sadock, 2010). DM is a chronic disease that weakens the body so it can lead to depression and anxiety for the sufferer (Stuart, 2009). Psychological disorders in DM clients can also be caused by signs and symptoms experienced by clients (Price, 2006) who experience three typical symptoms (three-poly), namely polyuria (often pee), polydypion (often drinking), and polyphagia (often eating). Management that must be done by the DM clients throughout their life can also lead to depression and boredom. It is found in many DM clients who become research respondents. Clients say they feel bored for doing the same activities continuously, and feels that they are living a different life with others. The length of time a client suffering from a chronic illness can result in a psychological disturbance to the client, mainly due to the ongoing treatment. Increased cortisol hormone, epinephrine and norepinephrine are triggered by elevated glucose levels in the blood so that DM clients experience mood disorders such as being quiet, often daydreaming and angry without any obvious cause (Brunner, 2002).

Based on the results of existing research and theories, researchers assume that the

occurrence of the meaning of life disturbance on DM clients is influenced by internal and external factors. Internal factors are factors from within the client itself, including one of the signs and symptoms that accompany the DM disease. Treatment of signs and symptoms that arise often result in clients feel bored and saturated. Continuous injections of insulin or oral hypoglycaemic drugs to be taken daily, routine blood glucose examinations, and the need for regular physical exercise lead to new lifestyle changes in which the changes make DM clients feel that they have no freedom in life, boredom, despair and helplessness. If boredom is unavoidable and clients withdraw, then one tends to perform activities with unwillingness, and live despair life without the purpose and meaning of life. External factors include support from family and people around. It is found in DM clients at research where the average DM client fears about being divorced by their partner, feels unworthy of having a role in the family for not being able to fulfil obligations as a couple, feeling useless for not being able to play a role in the family, feeling worthless because they cannot make something good, feeling sad because cannot make their partner's happy, their body feels weak, lack of spirit and arise boredom for doing activity.

The treatment group experienced a significant increase in the assessment of meaning in life. There were 66.7% of clients who experienced improved meaning in life, and 33.3% of clients whose meanings of life were disrupted in the medium range. There is no longer a client who interpreted their life is low. The client said after doing logotherapy with the therapist, they can be more contemplating about what happened. The client understands about the illness, feels that their pain is a trial from God, become optimistic with their life, can do useful things even though they cannot engage in strenuous activities, can be useful for the family and the environment by doing the best thing they can, and feel daily activities is always a vigorous and a source of satisfaction. Significant increase of meaning in life in treatment group was different from control group. The control group did not experience any change

in the meaning of life at all, which means the meaning of life in the control group is still disturbed. Clients still feel a burden to the family, unable to make family happy, feel bored with the routine, not able to understand about the meaning of life, life goals, life choices and have not been able to get the source of pleasure and satisfaction in life.

The data shows that most respondents coming from high school graduates (46.7%), and there are 16.7% of respondents were college graduates. The higher a person's level of education, the easier it will be to filter the information from the outside and get smarter in sorting through the problem. Logotherapy in this study is given individually to facilitate the client counselling with the therapist without feeling ashamed to tell the problem. Counselling always focuses on the problems experienced by clients. The process is consistent with the claim that logotherapy focuses on life issues related to death, freedom, powerlessness, loss, loneliness, anxiety and social isolation (Isaacs, 2001). Correspondingly, the discovery of the client's main problem which lead to the meaning of life disturbance is important to take into further counselling action by the therapist. Changes in the meaning of life that increases after the implementation of logotherapy, are influenced by the acceptance of clients to the activities and accuracy of therapists who perform a good logotherapy according to the guidelines. In the implementation of logotherapy, the researchers conducted interviews with clients and found it easier to give understanding to respondents who were a high school / college graduates than those whose an elementary and junior high school graduates. It shows that education level influences one's acceptance of innovation, the speed of innovation adoption process, and one's behaviour.

The implementation of logotherapy aims to help clients use the suffering they experience as a tools to find the purpose in life. Many people think that suffering is a fate that cannot be prevented. Logotherapy teaches to see the positive value of suffering, provides an opportunity to take lessons from suffering and provide comfort and

preparedness for dealing with a useful death. The client is given an understanding of how to face the toughest times, keep receiving the process of suffering even though DM disease is medically stated never to heal until the end of the life, and provide support to clients to always eager to live their life. Most clients can put themselves well, conduct therapy sessions smoothly without repeating, and most importantly the client feel their life is more meaningful and their after logotherapy. This proved to give a significant impact on increasing meaning of life in DM client in RSUD Dr. Sayidiman.

The results of this study were supported by a study of 30 respondents with chronic disease, that logotherapy is an effective therapy in clients with chronic diseases. Logotherapy has a positive and effective support for the psychosocial changes experienced by clients with chronic illness. From the results and statements, it can be concluded that logotherapy is an effective therapy used on clients with DM disease that have a decreased meaning of life. Logotherapy is given individually in 4 sessions. On giving the therapy, a therapist is required to act scientifically. The role of the therapist in carrying out logotherapy is to maintain intimate relationships and scientific separation, meaning that the therapist must create a relationship between clients by seeking a balance between two extremes, namely intimate relationships (sympathy) and scientific separation by handling clients as far as they are involved in therapeutic techniques. In the provision of intervention, an evaluation is conducted at the end of each meeting and at the beginning of the next meeting, in accordance with the opinion that changing the behaviour of a person needs to be accompanied by information and given repeatedly (Widhiarso, 2012).

After the logotherapy process, most clients begin to feel that the suffering they experience is a rebuke from God in order to become a better creature, so that the client can take wisdom. Clients address disease complaints wisely, those who consider themselves as a troublesome for their friends then communicate more with their friends

and understand that people around were helping with sincerity, clients also start doing reciprocity by helping each other. The client feels his/her life is more meaningful and gets a different view of the suffering experienced. No more clients who feel different from others, because the client believes that all human life must be given different trials. Clients can spend the day feeling happy and doing daily treatment without any burden.

Respondents who have not been able to proceed to the next session should be repeating the previous session. Similarly, for respondents who have continued to the next session will be evaluated from the previous meeting. It can be concluded that the changes that occur in the respondent after the implementation of logotherapy are because the client is given knowledge repeatedly or reinforced at each meeting, and optimized in each session so that the process of learning can fosters motivation. There is a decrease in the number of the classification of low meaning of life after the logotherapy, as well as the decreased range of middle impaired meaning of life. Meanwhile, the qualification of good/normal meaning of life has increased significantly. The increased of the meaning of the client's life is greatly influenced by the success rate of logotherapy itself. In this case, the role of the therapist is very important, that the therapist must be able to place themselves equally between the client with the therapist, facilitate the client to convey the problem experienced with full confidence. Significant improvement in the meaning of life is also influenced by client demographic factors such as level of education, environmental factors, and family support factors. Individual logotherapy proven to bring positive impact for DM client, which is happiness. Thus the values of logotherapy philosophy can be achieved. Humans are creatures that are biopsychosocial and spiritual unitas though in a state of suffering, still given the opportunity to achieve a more meaningful life (the meaningful of life) (Yusuf et al., 2016).

The use of logotherapy in DM patients by nurses needs to consider the demographic factors of DM patients. Nurses also need to pay attention to the perceptions of DM

patients on their illness and self-acceptance of DM patients.

Conclusion

Providing individual logotherapy is proven to increase the DM client's meaning of life, so that clients can have an attitude of receiving with full patience, and be positive and live their life with happiness. The increased of the meaning of life is influenced by the acceptance of clients to the activities and accuracy of therapists who perform a good logotherapy according to the guidelines.

Ethical Clearance

This study has obtained the approval of ethical clearance from the ethics committee of the Faculty of Nursing Airlangga University Surabaya Indonesia.

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