

Contribution of Psychological Intervention for People Living with Diabetes Mellitus in Iringa Municipality

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Abstract: This study aimed at evaluating psychological intervention adjustment for people living with diabetes in Iringa Municipality. Primary data were collected from 30 participants living with diabetes, 40 family members and 22 health services providers by means of survey tool (questionnaire). The sample was chosen from five wards using purposive sampling technique. The analysis was performed using Statistical Package for Social Science (SPSS ver. 20, IBM, USA) and the findings of the study show that psychological adjustment services dealing with diabetes mellitus are available and affected people are aware about the services provided. The results further revealed that psychological treatment helps patients to identify self-management strategies. Furthermore, the study revealed that psychologists have identified depression, anxiety, diabetes distress, mild cognitive impairment, intellectual disabilities, maladaptive eating behaviours, dementia, and psychotic disorders as mental health conditions most commonly encountered in practice. The study recommends that, the importance of treatment adherence in determining the health outcomes of patients with diabetes should be considered to be the important role of psychopathology in enhancing the services provision. The specialists should ensure a comprehensive approach that integrates the treatment of psychological problems with the aim of improving health behaviours and diabetes treatment.

Keywords: Adjustment, Diabetes, Distress, Insulin, Psychotherapy, Type.

1. INTRODUCTION

The psychological possessions of diabetes on the individual are complex all around the world. Diabetes is a long term condition which requires careful self-management to minimize the risks of physical illness and complications (Gonzalez *et al.*, 2011). Diabetes interferes with the routines of daily life and constrains the choices that individuals are able to make (Bhat, Mulyala and Chaturvedi, 2020). According to WHO, the greatest decrements in self-reported health are observed in those with both depression and diabetes than in those with depression and other chronic conditions such as angina, arthritis or asthma. Depression has been found to be associated with lower quality of life, poorer diabetes self-care, impaired glycaemic control, and an increased risk of developing diabetes-related complications (American Association of Diabetes Educators, 2018). In the United States, 17.9% of diabetic individuals are affected by mental illness. Individuals with diabetes are at greater risk for depression and other psychosocial difficulties as compared to the general population (American Association of Diabetes Educators, 2018). Diabetes educators have identified depression, anxiety, diabetes distress, mild cognitive impairment, intellectual disabilities, maladaptive eating behaviours, dementia, and psychotic disorders as mental health conditions most commonly encountered in practice. In a recent survey, most diabetes educators reported feeling somewhat comfortable knowing when to refer a person with diabetes to a mental health professional (Bahramy *et al.*, 2020). A general lack of mental health resources or access to mental health professionals were reported as struggles in the provision of care related to mental health for people with diabetes.

In developing countries, it is commonly accepted that depressive symptoms and major depressive disorders are twice as prevalent in individuals with diabetes. Moreover, psychological morbidity in people with diabetes poses huge challenges for clinical practice (Stankoviü *et al.*, 2013). Given the higher healthcare expenditure and increased mortality associated with depression, it is therefore not surprising that clinical guidelines now recommend that all patients with diabetes undergo regular screening for depression (Robinson *et al.*, 2018). In Africa, there is increasing evidence that the psychological state of diabetic patients is not over-emphasized and that anxiety and depression are present in these diabetic patients (Wagner and Abbott, 2007). In developing countries diabetes is a demanding chronic disease for both individuals and their families. It is associated with a number of challenges, including adjusting to a new diagnosis, diabetes distress impairing self-management, psychological insulin resistance, and fear of hypoglycemia. In addition, a range of psychiatric disorders can arise that contributes to greater complexity in both assessment and treatment.

In Tanzania, diabetes increases the risk for depression and depressive symptoms. People with diabetes have a risk of having depression compared with those who do not have diabetes. It is now well-understood that the prevalence of comorbid mental health conditions is higher in people with diabetes than the general population. The most common conditions include depression, anxiety, disordered eating/eating disorders and short- and long-term neuro-cognitive changes associated with hypo- and hyperglycemia (Britneff and Winkley, 2013). The people with diabetes are more likely to develop eating disorders, which are more likely to occur in young women (Eriksson and Maclean, 2019). Eating disorders increase the risk for poor glycemic control and resulting acute diabetes symptoms. Self-care requirements, as well as social and environmental factors, place a considerable burden on people living with diabetes (Oguz, 2018).

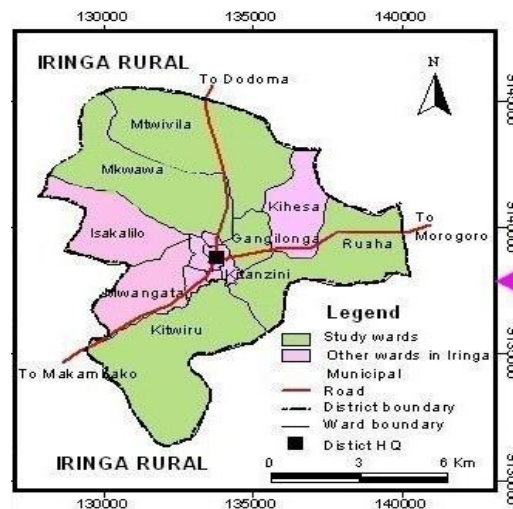
Populations at highest risk for diabetes, such as persons from low socio-economic backgrounds, may experience environmental psychological exposures (poverty, stress) that increase risk for mental illness, interfere with self-care and compromise medical management (Robinson, 2018). All of these factors set the stage for psychological conditions that affect adults with diabetes. Thus, different psychological approaches adopted by the people living with diabetes has carried along with clinical treatment (Nouwen *et al.*, 2010). The focus of the psychological strategy has been to ensure increased people living with diabetes to accept the situation and maintain its rules and regulations (Nardi *et al.*, 2008). Despite the potential benefit of the psychological strategy to the people living with diabetes, there is limited empirical evidence on the psychological intervention adjustment for the people living with diabetes mellitus in Iringa Municipality. This paper aims at assessing the psychological adjustment for people living with diabetes mellitus basing on the contribution of psychological intervention for the purpose of drawing the practical lesson on the advantages of psychological adjustment towards diabetes conditions since the psychological strategy spells out the quality of living to the people with diabetes mellitus.

2. MATERIAL AND METHODS

Study area

The study was carried out in Iringa Municipality. The area was selected because diabetic patients are available in Iringa Municipality. Also, most people with diabetic problems attend clinic services every week. Furthermore, the area is among the regions having people with diabetes mellitus of both types. Iringa Municipality is part of Iringa region. It lies between 7° south of the equator and between longitudes 35° East of the Greenwich Meridian. The altitude is between 1560 and 2000 meters above sea level. The Municipality covers an area of 162 square Kilometers and it is surrounded by the Iringa District except for Kilolo District to the South East (DADP, 2010).

According to the projection of 2012 population census, Iringa Municipality has a total population of 142,762, of which 70,333 are males while 76,429 are females. The Council has an annual growth rate of 1.6% with a population density of 916 and 34,010 households. Administratively, Iringa Municipality has one division, 14 wards, 3 registered villages, 13 hamlets (vitongoji) and 149 neighbourhood streets (Mitaa). Five of the 14 wards namely, Mtwivila, Mkwawa, Mwangata, Kitwiru, and Ruaha are situated in the peri-urban area while the remaining nine namely, Ilala, Makorongoni, Gangilonga, Kwakilosa, Kihesa, Mvinjeni, Kitanzini, Mshindo and Mlandege are situated in the urban area. The municipality is a regional headquarters (DADP, 2010). The map of the study area is shown in Fig. below:



Research Design

This study employed the convergent parallel design as a framework to guide the facts under study. Convergent parallel design ensured validation of the data, to prioritize the methods equally, to keep the data analysis independent and to look for similarities, differences, contradictions and relationships of two sources of data.

Sampling Techniques and Sample Size

This study employed probability sampling procedures, that is, stratified and simple random sampling. This technique reduced biases since in simple random sampling technique every person in the targeted population was given the same chance of being included in the sample. In the stratified sampling technique, the population was divided regarding specific characteristics such as gender, age, educational level, and religion and then used simple random sampling to sample from the elements for each subcategory of the population using lottery techniques. For that matter, the pieces of paper were written from 1-50, then was distributed basing on gender category of the sorted population.

Data Processing and Analysis

The study employed mixed approach through which data was collected and analysed. Quantitative data was collected through questionnaires and analysed descriptively using Statistical Package for Social Science (SPSS) and on the other hand, qualitative data were collected through interview and focus group discussion which was analysed thematically by organizing, transcribing, sorting and grouping data into major recurring themes based on specific objectives. Thereafter, the results were presented using explanations and direct quotations from the respondents to validate the information obtained.

3. RESULTS AND DISCUSSION

The impact of Psychological Intervention on Adjustment for People Living with Diabetes.

Psychological intervention on adjustment for people living with diabetes is important in the care for patients and can only be successful through self-care after tailored diabetes education and the ability to Psychologically Change in Identifying Self-Management Problems towards Solving Problems. Such were the parameters for the analysis of this study and the following were the results.

Self-care after tailored Diabetes Education

The findings which were obtained from diabetic patients (Table 12) revealed that 46.7% of respondents strongly agreed about the subject matter and 50% of the respondents agreed about the subject matter. The results prove that according to the psychological cure, most of people affected with diabetes mellitus are weakened, because they need to change their living behaviour to cope with their situation. Hence many of the affected people are not able to take care of themselves.

Table 1: Self-care after Diabetes Education

	Frequency	Percent
Strongly agree	14	46.7
Agree	15	50.0
Disagree	1	3.3
Total	30	100.0

Source: Researcher, 2022

Data from interviewed family members about the subject matter, self-care education is a mandatory to the diabetic patients which enhance their life situation. Interview with the family members from ward G, K and M stated;

“The important thing to do in order to serve our fellows living with diabetes mellitus is education, because this will help them and people who they are living with to support the patients” (Interviewed member of family from ward G, K and M, 2022).

Moreover, other family member from ward C revealed that:

“There are some advantage of educating people living with diabetes such as living with confidence regarding their situation, improving their health status, taking self-care and having hope of living longer than before” (Interviewed member of family from ward C, 2022).

In regard with the above quotations, people living with diabetes mellitus are able to take care of themselves if they get psycho-education from psychologists or other people who are living with them. With this regards if diabetic patients do not get psycho-education it becomes possible for them to be in a situation of feeling traumatized in their daily life. Therefore, people or family members must take care of their relatives to make sure that they follow the procedures to live with diabetes mellitus without psychological interference. These findings are supported by Bahramy *et al.*, (2019), who stated that patients living with diabetes mellitus are living a happy life because they have already seen their other family members enjoying their life with the same problem.

Also the experience to the diabetes mellitus by other family members strengthens healthy lifestyle physically and psychologically and this better psychological adjustment is well accompanied with more education for the people living with diabetes mellitus (Bahramy *et al.*, 2019). In the same vein, at the outset of these reviews, clinicians are urged to bear in mind that the treatment of diabetes requires changes in health behaviour and intensive self-management of treatment (Gonzalez *et al.*, 2011) which requires proper education to the patients on proper care.

Psychological adjustment in Identifying Self-Management Problems towards Solving Problems.

The findings from diabetic patients indicates that 4673% of respondents strongly agreed about the subject matter that psychological change help to support action to them to identify self-management problems and develop strategies to solve those problems, including self-selected behavioural goal setting (Table 13). So, majority of the people living with diabetes mellitus tend to take responsibilities for their lifestyle in eating behaviour and therapy activities. This helps the patient to prolong their life span.

Table 2: Psychological adjustment in Identifying Self-Management Problems

	Frequency	Percent
Strongly agree	14	46.7
Agree	15	50.0
Disagree	1	3.3
Total	30	100.0

Source: Researcher, 2022

With reference to the above findings, it shows that people living with diabetes mellitus know to take self-management according to their situation (they observe eating behaviours and self-hope of being alive same as other normal people do). Some few of the people living with diabetes mellitus are not able to manage themselves they need help from their relatives. These findings are supported by the study by Kaymaz and Akdemir, (2016) who researched on psychosocial adjustment of diabetic patients to their disease through descriptive design and revealed that the areas that affected psychosocial adjustment mostly were found to be the orientation to healthcare, vocational environment, sexual relationships, and psychological distress. The patients’ education level, profession, frequency of undergoing medical controls, diet and exercise status, but not their age, years of diabetes, and use of oral ant-diabetics along with insulin, were found to affect their psychosocial adjustment. The total psychosocial adjustment to the areas of orientation to healthcare, domestic environment, extended family relationships, social environment, and psychological distress of diabetic patients increased as their social support increase.

Psychological intervention towards Strengthening Self-efficacy and Self-confidence in Self-Management Decisions and Abilities

The findings obtained through diabetic patients indicates that 93.3% of respondents agreed about the subject matter that psychological support helps to strengthen self-efficacy and self-confidence in self-management decisions and abilities (Table 14). Hence most of the people living with diabetes mellitus keep having the hope of living like other people who not affected by diabetes mellitus.

Table 3: Psychological intervention strengthens self-efficacy and self confidence

	Frequency	Percent
Strongly agree	2	6.7
Agree	28	93.3
Total	30	100.0

Source: Researcher, 2022

On this matter one of the specialist stated;

“One thing we have to do to deal with people affected with diabetes mellitus is giving them education because we have tried to educate some of them about their situation” (Interviewed specialist from hospital Z, 2022).

On the same office, other specialist detailed that:

“When patients are educated and becoming aware the response becomes very positive like they attending clinic, they manage themselves, following the counselling we give them and they are happy with their life. So education is very helpful to people living with diabetes” (Interviewed specialist from hospital R, 2022).

With reference to the above quotations, it shows that most of the people living with diabetes mellitus are feeling better due to the psychological support they receive from their specialist doctors. They feel confident to live with their situation. But there are other diabetic patients who are not willing to understand or to receive the psychological education that can help them live happily life the same to other normal people. The study findings reflect those of a study by (Carlos *et al.*, 2010) who contend that psychological interventions have been seen to be helpful to patients because these interventions help the patients to have self-management responsibilities such as diet and exercise, regular therapy, injection, self-monitoring, self-adjustment of the treatment and clinic visit. These results are the outcomes of psychological education (counselling strategies) that deal with social training which teaches the patients to cope with their situation (Carlos *et al.*, 2010). Through psychological intervention diabetic people have hope of increasing their life span, due to the positive attitudes they have such as boosting wellbeing, enhance positive feelings and behaviour (Sin and Lyubmirsky, 2009)

4. CONCLUSIONS

The psychological adjustment varied from one to another and inclined by demographic, clinical, and social factors. As detailed in this Position Statement, routine monitoring and screening for diabetes distress, depression, anxiety, eating issues, and appropriate levels of social and family support, as well as contextual factors that hinder implementation of care, are

clearly indicated. Efficiency of treatment and care provision are enhanced by the inclusion of behavioural health services into the diabetes treatment team. Cooperative care appears the most promise for supporting physical and behavioural health results. The psychosocial care should be integrated with collaborative, patient-centered medical care and provided to all people with diabetes, with the goals of optimizing health outcomes and health-related quality of life. The importance of treatment adherence in determining the health outcomes of patients with diabetes and many patients should be considered to be the important role of psychopathology in enhancing the services provision. Also clinicians should bear in mind that the treatment of diabetes requires changes in health behaviour and intensive self-management of treatment.

The specialists should consider an assessment of symptoms of diabetes distress, depression, anxiety, and disordered eating and of cognitive capacities using patient-appropriate standardized tools at the initial visit, at periodic intervals, and when there is a change in disease, treatment, or life circumstance including caregivers and family members in this assessment. Also addressing psychosocial problems upon identification is recommended. If an intervention cannot be initiated during the visit when the problem is identified, a follow-up visit or referral to a qualified behavioural health care provider may be scheduled during that visit. Furthermore, the specialists should ensure a comprehensive approach that integrates the treatment of psychological problems with aim of improving health behaviours and diabetes treatment. Also clinicians should be encouraged to think carefully about their ability to address the tremendous behavioural challenges facing individuals with diabetes mellitus and psychopathology and look forward to future strategies on integrative interventions that can more thoroughly evaluate problem solving in good manner.

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Conflict of interest: The authors declare that they have no competing interests.

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