A Comparative Study on Health Anxiety, Self-Esteem and Life Satisfaction of Adults with Type 2 Diabetes Mellitus and Non-Diabetic Adults

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Abstract

Health and behaviour are two entities that affect each other constantly. The present research studied psychological variables among individuals with one of the commonly prevalent diseases - Type 2 Diabetes mellitus. Diabetes is a chronic disorder that affects a majority portion of an individual's health and lifestyle, including their mental health. The present research study investigated health anxiety, self-esteem, and life satisfaction in Indian adults with type 2 diabetes mellitus compared to non-diabetic adults. Significant differences were found for health anxiety and life satisfaction among diabetic adults and non-diabetic adults. However, no significant differences were found in self-esteem. To explore the variables further, interviews were conducted with a few individuals with Type 2 diabetes from the sample. Effective disease management, social support, and a fulfilling life is found to contribute to positive well-being in diabetic individuals.

Keywords: Type 2 diabetes, health anxiety, life satisfaction, self-esteem

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According to World Health Organization, *"diabetes mellitus is a chronic, metabolic disease characterized by elevated levels of blood glucose (or blood sugar), which leads over time to serious damage to the heart, blood vessels, eyes, kidneys, and nerves."* There are three main types of diabetes, as follows – Type 1, Type 2, and gestational diabetes. Type 1 diabetes is a chronic condition in which the pancreas produce little to no insulin by itself, often leading to complete insulin dependence. Type 2 diabetes, which is the most common type of diabetes, is a chronic disorder in which the body becomes resistant to insulin or does not make sufficient insulin to process the blood sugar properly. Type 2 diabetes generally occurs in adults over the age of 45. Apart from age, there are certain lifestyle precursors to diabetes as well, like obesity, family history, sedentary lifestyle, unhealthy dietary practices, amongst others. The symptoms of T2D are characterised by numbness, fatigue, frequent urination, slowed healing of wounds, abnormal weight loss or gain as well as other symptoms like digestive disturbances, etc. Thus, diabetes is a chronic disorder that affects a majority portion of an individual's health and lifestyle, including their mental health. Mental health and physical health are two co-existing states pertaining to an individual which constantly affect each other. The emotions, thoughts, attitudes that an individual experiences can affect the health of their body. For example, experiencing stress releases the stress hormone, cortisol, which induces a rise in the blood-sugar levels. This aids the body in devoting energy to cope with stress; however, prolonged stresses can build up to insulin resistance, and contribute to the development of diabetes. On the other hand, having diabetes, or any other chronic condition, may contribute to stress and certain amounts of anxiety. The Centres for Disease Control and Prevention (Diabetes and Mental Health, 2023), estimate that people with diabetes are 20% more likely to experience anxiety than people without diabetes at some point in their life.

Along the lines of this relationship between mental health and physical health, this study aims to explore the psychological factors of health anxiety, self-esteem, and life satisfaction in the context of people with Type 2 Diabetes Mellitus as compared to people without any chronic condition.

Health Anxiety

According to the APA Dictionary of Psychology, health anxiety refers to an excessive and disproportionate worry or anxiety, regarding one's health, possibly due to misinterpretation of certain symptoms or bodily signs one may experience. In the DSM-5 TR, the disordered manifestation of health anxiety is classified as illness anxiety disorder, falling under the category of "Somatic Symptom and Related Disorders". Health anxiety, previously known as Hypochondria, referred to the fear of acquiring a serious illness. Illness Anxiety Disorder is an excessive worry that leads individuals to believe that tey have a serious or a life-threatening condition, despite the fact that medical professionals report no illness or mild symptoms. Illness Anxiety Disorder can also cause people to misread normal bodily sensations as indicators of a serious illness, or cause people with physical illness to worry that they are sicker than they are. It is usually a long-term condition with varying degrees of severity. The severity of Illness Anxiety Disorder increases as an individual gets older. The cognitive-behavioural approach proposes that individuals with health anxiety tend to catastrophically misinterpret ambiguous illness-related information, medical information, and bodily signs or symptoms. Moreover, this misinterpretation could lead individuals with severe health anxiety to believe that they are suffering from a serious illness (Warwick & Šalkovskis, 1990)

Self Esteem

Self-Esteem refers to the value or worth that an individual attaches to their self-image. It is the judgement that an individual makes about their perception of themselves, be it positive or negative. According to the APA dictionary, "the degree to which the qualities and characteristics contained in one's self-concept are perceived to be positive." Self-esteem lies on a continuum, from low self- esteem, characterised by low confidence, self-doubt, etc., to high self-esteem, characterised by healthy social skills, self-confidence, adequate boundaries, etc. It is also associated with subjective well-being and psychological adjustment. Self-esteem may be divided into a few aspects – Global Evaluation of worth, Domain-specific, State self-esteem and Implicit self-esteem. Global Evaluation of Worth is the overall evaluation of an individual, made as a whole. This refers to the individual's judgement of their worth as a person, in a generalised manner, as per every aspect of their lives. The Rosenberg Self-esteem Scale measures the global evaluation of an individual. Domain-specific self-esteem refers to specific abilities or characteristics of an individual that can be assessed separately in their domains. E.g., self- esteem relating to academics, or body-image, social standing, occupational self-esteem, etc. State self-esteem refers to the dynamic sense of self-worth, which may fluctuate according to situations like success, social acceptance, praise, positive feedback (high self-esteem) or social rejection, criticism, etc. (lower self-esteem). In comparison to this, there is also trait self-esteem, which is more stagnant and stable, and pertain to the individual's general existence (global evaluation). Implicit self-esteem refers to the covert, unconscious evaluations that an individual makes about themselves, often without even realising it. Explicit self- esteem consists of verbal self-evaluations, whereas implicit self-esteem may not be verbalised or realized.

Life Satisfaction

Life satisfaction is an overall assessment of one's feelings and attitudes about their life at a particular point in time, ranging from negative to positive" Buetell (2006). Life satisfaction is different than happiness or well – being. 'It is the degree to which a person positively evaluates the overall quality of his/her life as a whole. In other words, how much the person likes the life he/she leads' Ruut Veenhoven (1996). Happiness is an immediate, momentary experience of gratification, or pleasure, which holds its parts in leading a satisfied life, however, it is not the only factor relevant. Life satisfaction on the other hand is the experience of an overall good quality of life, involving multiple factors like financial stability, personal successes, physical and mental health, etc. Therefore, while happiness is a small part the concept of life satisfaction, life satisfaction is a concept under the umbrella term of subjective well-being. The determinants of Life satisfaction can be explained by two theories - Bottom up and Tow down. Bottom-up theories of Life satisfaction revolve around the idea that life satisfaction is essentially the sum of the positive parts of an individual's life. It is the weighted average of satisfaction, cumulated by the different facets of life, e.g., family life, work life, personal traits, etc. Objective conditions, individual choices, and similar characteristics reflect a bottom-up approach. Top-down theories on the other hand rely on the assumption that life satisfaction is a consequence of overall aspects of life satisfaction which is dependent on personality traits, genetic traits, health aspects, etc., i.e. relatively stable, and unchanging aspects. Argyle (2001) found that approximately 15% of dynamicity in life satisfaction and subjective wellbeing can be attributed to objective conditions like personality, health, genetics, etc. The present research explores the above three variables among individuals with Type 2 Diabetes Mellitus as compared to people without any chronic condition.

Review of Literature

The global observations of Type 2 Diabetes Mellitus cases showcase an upward trend, with the total statistics of this diagnosis almost quadrupling from 1990 to 2022 (WHO, 2024). T2DM is a disease which is more lifestyle oriented as mentioned above, considering its long- term nature, thus expectably affecting the mental health of individuals afflicted by the disease significantly. Multiple studies conducted by various researchers are indicative of an association between Type 2 Diabetes Mellitus and poor psychological well-being. A multinational study on Diabetes Attitudes, Wishes and Needs (DAWN) (Peyrot et al., 2005) revealed that 41% of adults with T2DM reported poor psychological well-being.

On the foregrounds of the knowledge present about the physical and psychological implications of T2DM, multiple studies have focused on the psychological constructs possibly correlated with this diagnosis. The present study focused on the literature assessing constructs related to any possible clinically significant psychological constructs like depression, anxiety associated with T2DM as well as components of their self and identity, along with the life experiences of individuals with T2DM diagnosis. Patterns of correlation between anxiety, depression and different factors associated with T2DM were identified by multiple researchers, as follows.

Research conducted by Balhara and Sagar (2011) revealed a significantly positive correlation between health anxiety, depression and body-mass index along with elevated HbA1C levels and post-meal glucose levels amongst patients of T2DM. Claude et al. (2013) explored the correlation of health anxiety with fear of diabetes complications, adherence to diet and exercise, frequency of blood glucose testing and physical quality of life, and found strong positive correlations between health anxiety and fear of diabetes complications and strong negative correlations with physical quality of life, along with weak to no correlations with the other factors. Santos et al. (2014) observed a higher prevalence of Generalised Anxiety Disorder, Panic disorders, as well as obsessive compulsive disorders in patients diagnosed with T2DM, along with a strong association to poorer quality of life in the context of physical, social, and psychological aspects of an individual's life. Altıntaş et al. (2023) aimed at determining the effects and prevalence of health anxiety and depression on the glycaemic control and HbA1C levels in individuals with Type 2 diabetes mellitus where a negative correlation was found between the scores of SHAI, and HAD (anxiety subscale) and a positive correlation was found between the number of doctors' visits, HbA1C levels, HAD (depression subscale) and SHAI scores. Vassou et al. (2023) conducted research under the ATTICA epidemiological cohort study (2002 to 2012) with the aim to study the association between family history, irrational beliefs, and health anxiety, in the context of a 10-year risk of developing Diabetes Mellitus type 2, adding a potentially predictive element to existing research.

Similarly, researchers have explored self-esteem, other concepts of the self as well as factors like happiness, quality of life and other constructs related to life satisfaction, in populations of individuals diagnosed with Type 2 Diabetes mellitus. Carroll et al (1999) conducted research

exploring the effects of body image and binge-eating habits on self-esteem in women with type 2 Diabetes. Binge eating habits were found to be correlated to low self -esteem. A study conducted on older Mexican adults afflicted by T2DM investigated the effects of depression and self esteem on self-care behaviours, a major part of diabetes care, and found that while not a major correlation was observed in the levels of depression and self-care tendencies in Diabetic adults, lower levels of self-esteem were strongly associated with a neglect towards their health and lack of health and self-care behaviours (Rivera-Hernandez, 2014). De Nazaré De Souza Ribeiro et al. (2017) studied the levels of self-esteem and resilience in patients with type-2 diabetes to understand their coping abilities in the face of the disease as a descriptive study using a quantitative approach with 27 diabetic individuals who were administered the Rosenberg Self-Esteem Scale. The results showed a mean of 61.3 years; 100% of the individuals displayed a high level of self-esteem and resilience. Similar to Rivera-Hernandez (2014) and their study on self-care behaviours, Gilani and Feizabad (2019) investigated the association between aerobic exercises, self-esteem, and the diagnosis of T2DM, using experimental methods and found aerobic exercises showed to have a positive effect on the self-esteem of diabetic adults. Another notable research conducted on individuals with T2DM by Kato et al. (2020) also explored the associations of self-worth and maintenance of health amongst diabetic individuals. This research markedly identified 3 primary themes in the maintenance of glycemic control and self- worth: regaining a sense of control over their normal lives despite the illness; discovering the positive aspects of the diabetes diagnosis, for example via treatment, management, etc.; finding a way to grow through the health challenges.

Further exploring the research conducted on aspects of life and quality of thus in individuals with T2DM, Phelps et al. (2011) conducted research explored how an individual's management of Type 2 Diabetes Mellitus (biomedical markers) is linked to their mental and

emotional well-being and life satisfaction in African American and Hispanic participants. Social support was most important for African Americans' happiness, while for Hispanics, it was managing mental distress. Social support also helped buffer the negative impact of distress on happiness for Hispanics, but not for African Americans. Expanding the diverse scope of research on life satisfaction in individuals with T2DM, Piciu et al. (2018) found that life satisfaction might be a helpful factor in identifying men at risk for type 2 diabetes. However, more research is needed to understand exactly why happiness might influence the development of diabetes. Further, a study conducted by Tuncay and Avcı (2020) explored the association of diabetes management and life satisfaction. Their study, in difference with the study conducted by Phelps et al. (2011), observed that self-support (self-care, etc.) had a significantly higher impact on the management of T2DM than social support. Adding to the roster of research conducted on self-care and diabetes maintenance and their association to life satisfaction, Jafari et al. (2024) found strong positive associations between self-care, diabetes maintenance as well as health literacy and life satisfaction, and quality of life.

While there is extensive research done in a global context on the correlates of Type 2 diabetes mellitus like clinical psychological symptoms or disorders especially in terms of health and general anxiety, depression, etc.; constructs of positive psychology like happiness, quality of life and concepts of self, like self-worth, self-esteem, etc., a stark gap is observed in previous studies conducted in the Indian Context. Despite the WHO’s estimate of 77 million adults in India suffering from Diabetes, not much research is available in the present socio-cultural demographic studying aspects of mental health and psychological well-being in these individuals with diabetes. Further, a comparative angle of research in T2DM is also inadequately explored. Research is required in exploring the significance of difference between the psychological well-being of individuals with T2DM and individuals diagnosed with T2DM. This may also allow the exploration of socio-cultural contexts affecting

psychological constructs in individuals with T2DM, as it may help identify a generalised baseline of these constructs in the target population demographics.

Thus, the present study aims to explore the comparative angle, by studying non-diabetic individuals against individuals diagnosed with Type 2 Diabetes Mellitus.

Rationale

The primary intention behind this study on Type-2 Diabetic and Non-Diabetic persons with respect to levels of health anxiety, self-esteem and life satisfaction is to explore how the three psychological constructs may get affected by a chronic illness, i.e. diabetes. Since Diabetes Mellitus type-2 is a lifestyle illness, it is pervasive and has a set of complications that may affect an individual's health in multiple ways. By studying health anxiety as a construct between the two groups, a significant contribution can be made towards making family members, co-habitants, or care givers of patients with T2D aware regarding their experiences, and may further be able to contribute to psychoeducation about the same. Diabetes, being a lifestyle disorder may have a pervasive effect on how an individual views themselves.

Despite being a widely known illness, diabetes still has a certain amount of stigma attached to it. This study intends to assess the effect of a diabetes diagnosis on the self-esteem of an individual, with the aim of eventually contributing to the destigmatisation of this and other such diagnoses. Since diabetes is also a disease which bring about major changes in an individual’s lifestyle, this study aims to explore the possible relation between a diagnosis of T2DM and life satisfaction. Thus, this study will be assessing multiple psychological constructs to research the effects of T2DM on health anxiety, self-esteem, and life satisfaction.

Objectives

1. To study the difference in health anxiety in Type-2 Diabetic and non-diabetic individuals
2. To study the difference in levels of self-esteem among Type-2 Diabetic and non-diabetic individuals
3. To study the difference in the levels of life satisfaction among Type-2 Diabetic and non-diabetic individuals.

Hypotheses

1. There is a significant difference between levels of health anxiety among T2D patients and non-diabetic individuals.
2. There is a significant difference between the levels of self-esteem among T2D patients and non-diabetic individuals.
3. There is a significant difference between the levels of life satisfaction among T2D patients and non-diabetic individuals.

Method

The present research employed a quasi - experimental design. Snowball sampling was used to collect the data. A Google form was circulated which included consent, demographic details of participants and tools. Respondents who reported any other disease or ailment other than Type 2 Diabetes Mellitus were excluded from the sample. After exclusions, the sample size was 80 participants - 40 individuals having a diagnosis of Type 2 Diabetes Mellitus and 40 individuals with no history of diabetes. In addition to the quantitative data, interviews were conducted on 10% of the experimental group (Individuals with diagnosed Type 2 Diabetes Mellitus) i.e. 4 individuals, as per the consent and availability of the participants.

Out of the sample measured, 70% were females and 30% were males. The mean age for individuals diagnosed with Type 2 Diabetes Mellitus and without the diagnosis was 52.5 and 50.2 respectively.

To measure health anxiety, the Health Anxiety Inventory – Short Form (SHAI) was used**.** It is an 18-item inventory with an individual statement based 4-point rating scale (ranging from 0 to 3), to measure levels of health anxiety. It is divided in two parts, first part from items 1 to 14 measuring general health anxiety and items 15 to 18 being negative consequences items, assessing the way an individual assumes that they may get affected in case they develop any illness. (Šalkovskis et al., 2002) The internal reliability Alpha coefficient is 0.95 and test- retest reliability is 0.82.

To measure Self - esteem, Rosenberg Self-Esteem Scale (RSES) was used. It is a 10-item inventory with a 4-point rating Likert Scale, ranging from strongly agree to strongly disagree, with 5 items having reverse scoring, used for measuring global evaluation of self-esteem. (Rosenberg, M., 1965) Its internal reliability Alpha coefficient is at 0.88 and test-retest reliability coefficient is at 0.82. Convergent validity was calculated at a 0.44 correlation between RSES and Academic Self-concept Scale

Inventory of Positive Psychological Attitudes (Life Satisfaction sub-scale) (IPPA-LS) was used to measure Life Satisfaction. It is a 32-item assessment scale with two subscales, first one measuring Life Purpose and Satisfaction and the second one measuring Self Confidence during Stress. The first subscale (LPS) has 17 items with a 7-point rating scale, with different statements for each item. The present research makes use of the first subscale only. The LPS subscale has an alpha reliability coefficient of 0.94.

Statistical Analysis was conducted using Jamovi, version 2.3.16. Descriptive Statistics such as Mean, Standard Deviation, Standard Error of Mean, Skewness and Kurtosis were conducted. Inferential statistics were conducted using Independent Samples t-test

Results

The obtained data was analysed using Jamovi version 2.3.16. Table 1 shows the descriptive statistics for all the three variables measured i.e. Health anxiety, Life satisfaction and Self - esteem.

Table 1

Descriptive statistics for age, Health anxiety, Self - esteem and Life Satisfaction

	IV	Age	SHAI	RSES	IPPA-LS
N	Diabetes Type 2	40	40	40	40
	N/A	40	40	40	40
Mean	Diabetes Type 2	52.5	15.9	31.5	5.27
	N/A	50.2	9.93	32.8	5.70
Median	Diabetes Type 2	52.0	13.0	31.0	5.44
	N/A	50.5	10.0	33.0	5.71
Standard deviation	Diabetes Type 2	4.64	9.69	4.86	0.957
	N/A	3.56	3.23	3.37	0.620

The differences in mean scores for health anxiety are found to be higher than the differences in mean scores for self-esteem and life satisfaction variables. It shows that the levels of health anxiety are much higher for patients diagnosed with Type 2 Diabetes Mellitus than individuals without the diagnosis. To further establish this difference, independent samples t - test was conducted and is reported below.

The standard deviation for health anxiety among Diabetes patients was found to be 9.69 which indicates high level of variation in the population. It indicates that among individuals with Type 2 Diabetes Mellitus, some face high levels of health anxiety while some maintain low levels of anxiety. The factors contributing to this difference were explored through interviews, which are reported in the Discussion section.

Table 2

Independent Samples T-Test

		Statistic	***df***	***p***
SHAI	*Student's t*	*3.71* [a]	*78.0*	*< .001*
RSES	*Student's t*	*-1.36* [a]	*78.0*	*0.177*
IPPA-LS	*Student's t*	*-2.34* [a]	*78.0*	*0.022*

Table 2 presents the results of the independent-samples t-test conducted to compare two groups involving participants with type 2 diabetes mellitus and the control group - individuals without diagnosis of any chronic health condition.

A significant difference was found between the two groups on health anxiety ($t = 3.71$, $p<0.001$). This indicates that participants with Type 2 Diabetes Mellitus experience significantly higher health anxiety than participants without the diagnosis. The results support Hypothesis 1 which states that the scores on health anxiety will be significantly higher for participants with Type 2 Diabetes Mellitus than participants without it.

No significant difference was found between the two groups for the other two variables i.e. self-esteem and life satisfaction. For self-esteem, $t= -1.36$, ns. For life satisfaction, $t = -2.34$, ns. These results contradict Hypotheses 2 and 3 which state that there will be a significant difference in self-esteem and life satisfaction among participants with and without Type 2 Diabetes Mellitus. This lack of difference may be attributed to multiple extraneous factors, which will be addressed in the discussion ahead.

Discussion

The present study aimed to explore the effects of the diagnosis of Type 2 Diabetes Mellitus, a lifestyle disease, on the psychological variables of health anxiety, self-esteem, and life satisfaction, in Indian adults ranging between the age of 40 to 60 years, by comparing with non-diabetic individuals. The research yielded results that supported Hypothesis 1 but contradicted Hypothesis 2 and 3.

A significant difference in health anxiety between the two groups is consistent with previous research in the field. Claude et al (2013) found similar results in their study on Canadian participants. Their study also explored demographic correlates and established that marital status, age, duration of diagnosis are positively correlated with health anxiety. The

findings also align with the research review by Lebel et al (2020) which stated common causes of worry among Diabetes patients. The review stated that while moderate to high levels of Health anxiety are seen in individuals with chronic conditions, the symptoms and causes are disease - specific. For diabetes patients, the study mentioned insulin reactions, the fear of hypoglycaemia, fear of injections/self - testing as the major causes of worry among others.

In the context of a pre-existing illness, health anxiety may be manifested as a worry of the disease getting worse, or fatal, again, the worry possibly being disproportionate. The present study hypothesizes that individuals with Type 2 Diabetes Mellitus will have higher levels of health anxiety. The data collected established this significant difference. 4 participants with the diagnosis were interviewed regarding their experience with the illness. Their responses revealed that spikes or any changes in sugar levels or diabetes symptoms often cause moments of stress and worry, and leads them to ruminate about their diagnosis and feel elevated levels of anxiety regarding the same. Few other common factors observed in the interview responses are the duration of their disease, their age at the time of diagnosis, management of their symptoms and blood sugar levels, as well as frequency of symptoms. Individuals who were recently diagnosed, reported more frequent experiences of anxiety regarding their health. Supporting this, one interviewee (participant 1), who was diagnosed last year quoted that she is very vigilant about her blood sugar levels and the slightest changes in her symptoms cause her to often worry excessively. On the other hand, interviewees who had been diagnosed more than 5 years ago report that they feel much settled with their diagnosis, do not worry excessively about every change and feel more capable of managing the same.

No significant difference is found between mean scores of self-esteems between individuals diagnosed with Type 2 Diabetes Mellitus and those who are not. These findings could be attributed to lack of control over other demographic factors like personal successes, family background, financial stability, social support, etc. Caroll et al (1999) explored low self-esteem among individuals with diabetes. Their findings revealed a correlation between binge eating habits and low self-esteem. The present study does not explore eating habits or disorders in the sample. Kato et al (2020) established that self - worth can be maintained in individuals with Diabetes by regaining control of their lives. To explore the presence of these demographics in the present sample, the interview questions covered questions about their opinions regarding the diagnosis, about how the diagnosis affects them emotionally as well as about their social support. During the interview, the most common factor contributing to the levels of self-esteem was found to social support. A few emotional factors that add to lower self-esteem as reported by the participants were the feelings of regret, shame, and guilt regarding their health. 2 interviewees quoted that they have a sense of regret and guilt that they did not properly look after their health previously. However, all 4 interviewees reported that their biggest sources of support regarding their health are their family and friends. Most of them are very open with their family members regarding their worries, and receive active support from them when it comes to worry, anxiety and even shame and guilt. This finding supports the Sociometer theory (Leary and Baumeister, 2000), that social support and self-esteem are closely linked and that individuals with low self-esteem may partake in activities (e.g., communication) that will help increase their social standing (social support in this scenario), which in turn will aid in increasing their self-esteem.

No significant difference was found between the mean scores on Life satisfaction between participants with and without Type 2 Diabetes Mellitus. While the top-down theories of Life satisfaction mention chronic illness as negatively affecting Life satisfaction, it also mentions other such variables. Lee et al (2021) researched whether cognitive function was linked to distress and life satisfaction among diabetes patients. Jafari et al (2024) stated that health literacy, self-care and mental well - being were linked to life satisfaction. In the present study, quantitative measurements do not dive into these variables. However, a few important factors relevant to the life satisfaction found in the interview responses are management of diabetes & its symptoms, social support, and engagement in leisure activities. Interviewees reported that factors such as immediate family (their children, partners, etc.) play a major role in making their life meaningful, and help them cope with the anxiety or stress brought about by their diagnosis. Coming to the duration of the interviewees' diagnoses, their levels of life satisfaction may be explained using the Hedonic Adaptation process, i.e., the process by which an individual eventually adapts to negative (or positive) life events, and sustains their satisfaction with life. It can be concluded that individuals with Type 2 Diabetes Mellitus face certain challenges when it comes to psychological well-being, however, with appropriate support and management, they can certainly cope with their diagnosis efficiently.

Implications

The findings of this research highlight the presence of high health anxiety among individuals with Type 2 Diabetes Mellitus. It implies that individuals diagnosed with chronic conditions/ life diseases may be more prone to comorbid mental health conditions like anxiety, depression etc. Based on these findings, it may be suggested that prevention strategies or symptom management for conditions such as Type 2 Diabetes Mellitus be executed seriously to prevent the impact of the disease on mental health of the patients.

Other findings highlight that variables like self-esteem and life satisfaction are not

determined only by health conditions. Several other factors play a role such as social support, health literacy, management of symptoms, duration since the diagnosis among others. Apart from these factors identified in the study, more may be explored as well. These findings point to a positive approach towards individuals with Diabetes. While the patients may be more prone to health anxiety and related mental health conditions, they may be able to maintain high levels of self-esteem and life satisfaction by tapping on these other identified factors.

Limitations

The sample size used in this research may not be adequate to obtain generalisable results regarding the hypothesis of this study. The sample collected was primarily taken from an urban setting, only from the state of Maharashtra, and thus the research does not consider the role of socio-economic background, literacy levels, and cultural factors that may be relevant to this research. Certain societal taboos attached to the diagnosis of Type 2 diabetes mellitus have presented obstacles with the data collection, due to the lack of willingness of a majority part of the population targeted.

Conclusion

The findings mainly suggest that the diagnosis of type 2 diabetes mellitus significantly contributes to increased levels of health anxiety. However, there is no effect of the diagnosis of diabetes on self-esteem and life satisfaction. This may be explained through the individual's management of their diagnosis and duration of their illness. The two factors that contribute to well-managed levels of self-esteem and life satisfaction - social support and meaningful life experiences may be further explored in future studies.

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