

Experiencing Type II Diabetes in Pakistan

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The present study was conducted to explore the experiences of type II diabetes in patients and their caregivers in Pakistan. Sample consisted of 8 participants, 4 were diabetic patients and 4 were their caregivers. Age range of diabetic patients and caregivers was 40-70 years and 17-50 years respectively. Semi-structured interviews were conducted and data was analyzed by Interpretative Phenomenological Approach (IPA). Four common themes emerged from the patients and caregivers were perceived severity of disease, diabetes related distress, positive emotional reaction, and living with a changed life. Furthermore, the themes diabetes overpowering physical health, family, friends, and relatives reaction, diabetic views about non-diabetic and conquering diabetes emerged in diabetic patients and hassles of living with a diabetic patient, coping with care giving responsibilities, caregivers views about non-caregivers and conquering diabetes and their own distress emerged in caregivers. Findings and implications are discussed in the light of cultural differences.

Keywords: type II diabetic patients, caregivers, semi-structured interview, IPA

Diabetes is a malfunction of pancreas where it does not produce enough insulin or the body has problem in using insulin (World Health Organization, 2010). According to National Diabetes Data group, type I and type II diabetes are the main types of diabetes (Drum & Zierenberg, 2005). In type I diabetes, a person is completely dependent on insulin injections for his/her survival because pancreas produce very little or no insulin as a result of which he/she can die. It is more common in children or young adults but it can appear otherwise as well (International Diabetes Federation, 2010). On the other hand, in type II diabetes, a person is not dependent on insulin injections for survival but they might be used (Vinicor, 2004). According to WHO and International Diabetes Federation (2010), type II diabetes is more frequently reported than type I diabetes.

According to WHO (2010) more than 220 million people are suffering from diabetes worldwide, 80% diabetic patients are from developing countries and every year 5% of deaths attribute to diabetes. Prevalence of diabetes in Pakistan was 5,217,000 in 2000 and it is expected to be 13,853,000 in 2030 (WHO Eastern Mediterranean Region, 2010).

Diagnosis of diabetes brings a number of emotional upheavals like denial (Adriaanse et al., 2008; Delahanty et al., 2007; Drum & Zierenberg, 2005; Gazmararian, Ziemer, & Barnes, 2009; Goldstein & Muller-Wieland, 2003), worry and anxiety (Alberti, 2002; Cherrington, Ayala, Sleath, & Corbie-Smith, 2006; Delahanty et al., 2007; Drum & Zierenberg, 2005; Goldstein & Muller-Wieland, 2003; Manderson & Kokanovic, 2009; Penckofer, Ferrans, Velsor-Friedrich, & Savoy, 2007), anger (Cherrington et al., 2006; Drum & Zierenberg, 2005; Goldstein & Muller-Wieland, 2003; Penckofer et al., 2007; Saudek & Christopher, 1997), fear (Alberti, 2002; Cherrington et al., 2006; Drum & Zierenberg, 2005; Gazmararian et al., 2009; Goldstein & Muller-Wieland, 2003; Samuel-Hodge et al., 2000; Saudek & Christopher, 1997), frustration (Cherrington et al., 2006; Drum & Zierenberg, 2005; Gazmararian et al., 2009; Penckofer et al., 2007) and depression (Cherrington et al; Drum &

Zierenberg, 2005; Gazmararian et al; Goldstein & Muller-Wieland, 2003; Harris, 2007; Penckofer et al; Samuel-Hodge et al., 2000). Diabetic patients also experience tiredness, low energy and dizziness (Cherrington et al; Samuel-Hodge et al., 2000). People also have a feeling of guilt or anxiety when they are unable to manage their diabetes (Cherrington et al; Drum & Zierenberg, 2005; Goldstein & Muller-Wieland, 2003; Penckofer et al.).

Apart from emotional difficulties, diabetic patients' life gets affected in different ways. Previous researches have given mix findings regarding support of the family. In some researches families are found to be supportive and in some they are not. It was also found that diabetic patients avoid discussing their disease with those family members, friends or acquaintance who are non-diabetic. They also feel less worthy in front of them and face problems in following diabetic's life style. Diabetic patients also use different strategies to cope with their disease. Lazarus and Folkman (1984) define coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of a person." Coping strategies used by diabetic patients include spirituality (Anderson et al, 2000; Chin, Polonsky, Thomas, & Nerney, 2000; Jones et al., 2008; Polzer & Miles, 2005, 2007; Samuel-Hodge et al., 2000), problems focused coping strategies, emotional coping strategies (Collins, Bradley, Sullivan, & Perry, 2009; Samuel-Hodge et al; Tuncay, Musabak, Gok, & Kutlu, 2008; Willoughby, Kee, Demi, & Parker, 2000) and avoidance coping strategies (Coelho, Amorim, & Prata, 2003).

Previous researches have shown that caregivers experience high level of stress as compared to the time when they were not taking care of someone. This high level of stress may reduce life expectancy of caregivers. When a loved one is diagnosed with diabetes it is very upsetting and stressful for a caregiver (Vroomen-Durning, 2009). A survey by The Hormone Foundation (2009) with a collaboration of The National Alliance for Care Giving showed that 54% caregivers faced problems related to diet like cooking, planning meals and non-compliance and 49% reported problems in medical care of diabetics especially in monitoring and controlling blood sugar level. Stress and emotional health as a significant concern was reported by 12% caregivers. Nine out of 10 caregivers were found to be sacrificing their personal and social well being because of their care giving responsibilities (Brod, 1998; Lackey & Gates, 2001; The Endocrine Society, 2009).

The present study explored diabetes and diabetics caregivers exp-

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experiences. It is part of a research that consisted of three parts. In the first study multidimensional scale and cluster analysis were used to get a quantitative exploration of mental schemas of non-diabetics about diabetes. After analyzing data, two dimensions emerged; consequences of management versus consequences of mismanagement and things that are forbidden versus things that are added. In the second study, focus group was used to explore the experiences of type II diabetic patients in Pakistan. After analyzing data through Interpretative Phenomenological Approach (IPA), eight major themes emerged, which were diabetes related distress, positive emotional reactions, problems with family, friends and relatives, disease, other diabetes-related problems, strategies to manage diabetes, benefits of diabetes and diabetics views about non-diabetics.

Rationale

Literature shows that diabetes is becoming a very common disease worldwide and its prevalence is on the rise in Pakistan as well. Diabetics and their caregivers face many problems which also affect their lives. The experiences of diabetic patients and their caregivers have not been explored yet in Pakistan which highlights the need to unmask this dimension.

Objectives

The objectives of the present study are:

1. To explore the experiences of type II diabetic patients.
2. To investigate how people cope with diabetes.
3. To see which psychological problems accompany diabetes.
4. To find out perceptions about diabetes among non-diabetics.

Research Questions

1. What are the experiences of type II diabetic patients in Pakistan?
2. What is the perception about diabetes among non-diabetics of Pakistan?

Method

Participants

Sample consisted of 8 participants in which 4 (2 men, 2 women) of them were the diabetic patients and 4 (2 men, 2 women) were their caregivers. Sample was selected through purposive sampling technique. The age range of the diabetic patients and caregivers was 40-70 years and 17-50 years respectively.

Data collection method

Semi-structured interview was used as a main tool to explore experiences of type II diabetic patients.

Procedure

Semi-structured interviews were carried out to explore the experiences of diabetics and their caregivers. Interview schedule

was developed on the basis of factors identified in the literature and the findings of the first two studies. Each participant was interviewed and was tape recorded with participants' consents. All the recorded data was transcribed for analysis.

Analysis

Diabetic patients' and caregivers' interviews were analyzed through IPA. After analysis eight major themes emerged from both. Major themes of diabetic patients interviews included perceived severity of a disease, diabetes related distress, positive emotional reactions, living with a changed life, diabetes overpowering physical health, family, friends and relatives reaction, conquering diabetes and diabetics views about non-diabetics. On the other hand, major themes of their caregivers' experiences were perceived severity of a disease, diabetes related distress, positive emotional reactions, living with a changed life, conquering diabetes, hassles of living with diabetic patient, coping with care giving responsibilities and caregivers views about non-caregivers.

First theme emerging in diabetic patients was "perceived severity of disease." Three participants perceived diabetes as a bad, lethal and a dangerous disease. Finding is supported by Mosnier-Pudar et al. (2009) research findings who found that patients perceived diabetes as a serious disease. Only one participant perceived it as treatable. One participant reported that, "*Diabetes is the root of all diseases.*"

Second theme was "Diabetes related distress." Participants experienced different negative emotional reactions including fear, irritability, hopelessness, depression, tension, weeping, anger, sadness, regrets, shock and denial. Participants experienced anger and irritability because of food deprivation and high blood sugar level like one participant said that, "*I become irritable and angry in weddings etc. when everyone is eating sweets and all other food but not offering me.*"

All participants experienced hopelessness/disappointment and fear. One participant reported, "*When I checked my blood sugar level in the morning and found the level at 360, I got disappointed that I take insulin in the morning, afternoon and at night, despite of all this my blood sugar level is at the same level.*"

Another participant reported, "*After having an eyesight problem, I feel depressed. I was fond of reading. I used to read Sunday newspaper and other materials. Now I feel sad with the thought that Allah is depriving me from many things with time.*"

Participants also mentioned different fears like having fear of being ill, fear of eating, fear of other diseases, fear of insulin injection and fear of death. These findings are consistent with the previous literature (Alberti, 2002; Cherrington, Ayala, Sleath & Corbie-Smith, 2006; Gazmararian et al., 2009; Goldstein & Muller-Wieland, 2003; Manderson & Kokanovic, 2009; Samuel-Hodge et al., 2000).

One participant exclaimed that, "*I am afraid of diabetes because after having diabetes a person only lives for two to four years after that he dies. Other people also say this.*"

Third theme was "positive emotional reaction." Three participants stated that they were happy when they found their blood sugar level to be in the normal range. One participant reported that

"*When my blood sugar level is normal I become very happy and*

think that today it is in this limit, may be tomorrow it will be more at the lower level. May Allah help me in getting better gradually”

Fourth theme that emerged was “Living with a changed life.” All participants reported that diabetes effected their family, religious and social life. They also had a feeling of being deprived as reported by Mosnier-Pudar et al. (2009) and Manderson and Kokanovic (2009). They found diabetes to have a great impact on patients’ family and social life.

Participants family life was found to be negatively affected by diabetes. Manderson and Kokanovic (2009) found that participants face problems in fulfilling their family expectations. One participant exclaimed with sorrow that

“I used to do all house hold chores, dry cleaning, ironing, cooking and taking care of children. But now I can’t do all this.”

Another participant said,

“I was fond of eating and I used to go out with my family, but because of diabetes my family life got disturbed and now I think what I’ll eat in a hotel, I can’t eat what I want to.”

Three participants religious life was also perturbed because of diabetes. One participant said,

“Because of diabetes, I feel tired and cant standup hurriedly while offering prayer, I can’t do fasting because of dry throat, I can’t recite Holy Quran because of weak eyesight.”

Diabetes also negatively affected participants’ social life. One participant reported,

“Now I don’t go out with my friends; when they come to my place I try not to sit for a long time as I get tired. As far as my own activities are concerned, I used to look after my house, go up and down and look after the community; all these activities have got affected more than 50 %.”

All participants had a feeling that diabetes deprived them of so many things; especially they reported a strong feeling of food deprivation as reported by Jones et al. (2008). One participant stated that

“With diabetes, no positive thought comes to mind. You are deprived of eating, you are deprived of wearing.”

Another participant reported,

“When everyone is eating, I get upset. Now I have 10000 Rupees. When I got married, our economic condition was poor. At that time my husband earned 400 Rupees and we had to run the house and bring up children and pay their school dues. But now I cry because when there was a time of eating, I didn’t have resources. Now I want to eat but doctors restrict me.”

Two participants reported that because of diabetes they became dependent on others (Brod, 1998) and on insulin injections. Insulin injection also caused swelling in their bodies. One participant reported

“I used to do all the work on my own but now I am dependent.”

Two participants reported that because of diabetes their lives became more disciplined, they became more diet conscious, controlled their weight and also guided others. In western culture, positive affect of diabetes was also explored by Brod (1998) in a different way. He found that patients had a feeling of closeness with their partner, received appreciation when they took care of themselves and they also developed patience. One participant reported that because of diabetes,

“My weight has reduced, few habits have been changed and life has become disciplined, which was not before. I was careless but now I become careful in eating.”

Fifth theme was “diabetes overpowering physical health.” Analysis showed that participants faced different physical problems

because of diabetes, which included loss of teeth, fatigue, weakness, memory problems, numbness in feet, heart problems, laziness, sleeplessness, headache, dry throat, weak eyesight, pains, dizziness, backache, overweight, stomach problem, shivering, sweating, hearing problem and faintness. Being fatigued and weak, having memory problems and laziness were the problems which all participants experienced. Manderson and Kokanovic (2009) and Brod’s (1998) work support these findings. One participant stated that

“Physical health is completely shattered. My body is just a statue.”

Three participants also experienced problems of dry throat, weak eyesight, and pains.

Sixth theme was “family, friends and relatives reaction.” All the participants reported that their family members were very supportive and helpful in managing their diabetes. One participant mentioned that

“I live with my family, they take care of my food and medicines and my son takes me to the doctor.”

All participants had faced discouraging attitude of their friends and relatives on their diagnosis. One participant reported,

“I didn’t hide the diagnosis from neighbors; when they came to know about my diagnosis, they said, it is a very bad disease and can happen to anyone. Allah hi hai bass.”(Only Allah is there for me)

Another participant reported,

“Where we sit and people say that they are diabetic, others show avoidance behavior. They don’t use diabetic patient’s glass because of diabetes.”

Two participants reported that along with their friends who had discouraging attitude, they also had friends who supported them and encouraged them. One participant reported,

“When I talk to my friends about my diabetes diagnosis, they give advices to me and encourage me that it is not a big problem”

Participants also faced problems in social gatherings regarding food. People insist them for eating various foods which they can’t eat because of the restricted diet. One participant stated,

“When I go to my relatives’ place, they insist me to eat food which is restricted for me. But when I refuse to eat they think that I am an arrogant person.”

Mosnier-Pudar et al. (2009) found diabetic patients’ families to be very supportive but no research work has been found on the discouraging attitude of family, friends and relatives.

Seventh theme was “conquering diabetes.” Through analysis it was found that participants cope with diabetes through spirituality, diet, exercise and medicines. Researches done by Collins et al. (2009) and Tuncay et al. (2008) support the findings of present study in which diabetic patients manage diabetes through planning and adjustment. of diet, religion, exercise. Anderson et al. (2000), Chin, Polonsky, Thomas, and Nerney (2000), and Polzer and Miles (2005, 2007) also found spirituality as a mean of coping with diabetes. One participant reported,

“Disease is from Allah, I have to face it.”

Another participant reported:

“Zikar of ALLAH gives relief to hearts and because of this our sugar is under control. Whatever it is, it is from ALLAH and we have to accept it heartedly.”

With reference to management through diet, exercise and medicine, one participant said that for managing diabetes, he walked, became careful about diet and also took prescribed medicines. He used to go to his office on a car but after being diagnosed as diabetic, he started taking a walk to his office.

Eighth theme was “diabetics’ views about non-diabetic.” Partici-

pants perceived their life as colorless, tasteless and restricted as compared to non-diabetic as reported by Pena et al. (2010).

In this regard one participant reported that

“Diabetic person’s life is a colorless life. He has to be very conscious about diet. With the passage of time diabetes also affects other body parts.”

Diabetic patients also need someone’s help to cope with diabetes, which we called a caregiver. The role of a caregiver itself is very challenging. Through analyzing caregivers’ interviews by using IPA, eight major themes emerged. These were perceived severity of the disease, diabetes related distress, positive emotional reactions, living with a changed life, conquering diabetes, hassles of living with a diabetic patient, coping with caregiving responsibilities and caregivers views about non-caregivers.

“Perceived severity of disease” was the first theme, which emerged through analysis. Three participants perceived diabetes as a bad, dangerous, and a lethal disease. Study conducted by White, Smith, Hevey, and O’Dowd (2009) found that family members perceived diabetes as cyclical, serious and a controllable disease which supports the findings of the present research.

One participant reported that

“It is a very dangerous disease which affects the whole family.”

Another participant stated that

“Diabetes is a disease which is incurable but it can be controlled.”

Second theme was “diabetes related distress.” Participants experienced various negative emotional reactions which included fear, weeping, shock, regrets, silence, sadness and being fed up. Sadness, tension, anger, and disappointment were experienced by all caregivers as supported in the previous literature (Brod, 1998; Family Caregiver Alliance, 2006; Schulz & Sherwood, 2008). In this regard one participant exclaimed that

“When I am not feeling well or because of sleeplessness, I feel fed up and get angry like the other day I got fed up from my care giving responsibilities because I had a severe shoulder pain and many household chores were pending.”

She also reported that she becomes very upset when relatives say that it is a very dangerous disease, how will you manage it, diabetes also leads to other diseases etc.

Another participant reported that

“When my mother was diagnosed as diabetic, I was doing chemical engineering. At that time I got very upset, I discussed it with my teacher and friends. They advised me not to get upset.”

Two participants reported fear and weeping spells on diagnosis. Fear included fear of losing her husband and fear of diabetes related complications. One participant cried on her husband’s diagnosis. She exclaimed with sorrow that

“I cried a lot on his diagnosis. I didn’t tell him but I was much tense and complained to Allah, that He has put me in big trouble.”

Third theme was “positive emotional reactions.” Two participants reported that they are very happy and satisfied from their care giving responsibilities (Lopez, Lopez-Arrieta & Crespo, 2005; Schulz & Sherwood, 2008). While taking care of her mother, one participant reported,

“I am satisfied and know that I will get the reward for caring for my mother here in this world or hereafter. And I am getting reward in this world.”

Fourth theme was “living with a changed life.” Caregivers reported that their family life, their health, religious activities and social life was affected because of their loved one’s diabetes diagnosis and their care giving responsibilities. Lackey and Gates (2001) and Bord (1998) have also found caregivers family life,

social life and their health to be affected because of care giving responsibilities.

Three caregivers reported disturbance in their family life. They were facing financial strain and discouraging and non-cooperative attitude of the diabetic patient. One caregiver stated that

“After my husband’s diagnosis as diabetic, our life got disturbed....now he gets very rude with me. When he is angry he doesn’t care about children as well. We are very careful while talking to him in such a state. Previously we used to go for outing twice or thrice a week, and also for hoteling. He also used to ask children for suggestions, but with time all these thing vanished.”

Caregivers also reported that they felt fatigue, pains, and mental exhaustion because of their care giving responsibilities. It was also found that caregivers’ mental health was more affected than their physical health as reported by Schulz and Sherwood (2008) who also found caregivers mental health to suffer. One participant reported that

“I was much tense on my husband’s diagnosis which badly affected my health. My memory also got affected. Sometimes I feel that I am also having diabetes. I also feel physically exhausted.”

With reference to the effect on family life one participant mentioned that

“After my mother’s diagnosis, we don’t go out for outing often. But we feel very bad when relatives visit our place and tell us that they go here and there for outing.”

On the contrary, he also stated that “care giving responsibilities also bring improvement in his home environment.” While talking about it he narrated that

“I take 2 or 3 hours out from my work and come home, which brings positive change in home environment. In the beginning, I went for a walk with my mother but now my sister and father also go with us.”

Care giving responsibilities negatively affected the social life of all the participants. As one participant reported that

“I used to go with all my friends every Sunday. After my mother’s diagnosis, I have limited my number of friends like earlier I had five friends but now I have only two friends and I go with them.”

Another participant reported that,

“When my husband is at home, I don’t go anywhere. Me and my friends used to organize social gatherings every month. Mostly I arranged get togethers at my place, but now months pass and we don’t meet. Rather I don’t feel like doing it at all because now I don’t want to leave him alone at home.”

Three participants reported that their religious activities got affected both positively and negatively because of diabetic patient’s responsibilities on them (Lackey & Gates, 2001). One participant said that

“My religious activities have increased. People suggest Dua’s for my husband’s health and I do that. I try not to read Holy Quran in his presence but whenever he comes at home and I am reading Holy Quran or offering Namaz. I quit it or do in a hurry because after diabetes he feels very hungry.”

Another participant exclaimed with sorrow that

“My religious activities have reduced. I am mentally exhausted. I used to get up before Fajar prayer and read a lot of religious stuff. Now I feel fatigued and exhausted. As I have to get up at night and check my husband.”

Caregivers reported that their responsibilities have been increased. They have to do all the work in a hurry and they don’t have time for self-care and their hobbies because of their care giving responsibilities. Discouraging attitudes of relatives were also

problematic for caregivers. A study conducted by Bord (1998) found that because of care giving responsibilities, people didn't get time for their own selves and it influenced their leisure activities. One participant reported that

"My life has been completely changed after my husband's diabetes diagnosis. Now I have to prepare separate food for my husband and for my children. I used to stitch my clothes but now I have to get them stitched from tailor. I don't get involved in my hobbies because now I have no time for them. My husband was very helpful before diagnosis but now he feels very tired and expects me to treat him like a patient."

Two participants reported that their studies also got affected because of their care giving responsibilities, consistent with Lackey and Gates (2001) findings.

Along with negative effects, participants reported that their caregiver role also had positive effects on their lives as the participants reported that they got up early in the morning, they walked and exercised which had positive effect on their work and health. They had also become careful about their diet. Positive affect of care giving was also found in Western culture but in a different way. In a study conducted by Lackey and Gates (2001), it was identified that caregivers become more nurturing and caring and more knowledgeable about chronic illnesses.

Only one participant reported that her grandmother's diabetes didn't affect her family life, religious activities and had very little effect on her social life.

Fifth theme was "conquering diabetes and their own distress." Caregivers were managing diabetes through taking care of diabetic patient's diet, through medicines and walk. They were conquering their own distress by internalizing their anger and stress, scape-goating, praying, avoiding negative thoughts and crying. One participant mentioned that,

"I go for a walk with her, check her blood sugar level, give her insulin injection..... make a report about blood sugar level and take her to the doctor for checkup.... I also take care of her diet.... she is careless about her diet that's why I daily call her in the afternoon and ask about her lunch."

With reference to managing their own distress, one participant reported,

"When I get angry, I pray to Allah which is also a source of relaxation. I also try to channelize my anger through crying."

Another participant stated that,

"When I get angry or sad I never show it to others and in case of sadness, I cry or start fighting with someone to relax myself."

Sixth theme emerged was "Hassles of living with a diabetic patients." In this reference caregivers reported different problems like lack of information about diabetes (Lackey & Gates 2001), difficulty in convincing diabetic patient, lack of cooperation of the patient, and problems in regulating his/her diet. The Endocrine Society (2009) conducted a research in which they identified that caregivers faced problems in managing diet and also because of non-cooperative attitude of the patients. Lack of cooperation of diabetic patients is the problem which was faced by all caregivers.

One caregiver reported about her husband that sometimes he becomes very careless in eating, she tries to control his eating habits but he doesn't bother. Another participant faced relationship problem because of her husband's non-cooperative attitude. She reported that

"I give him suggestions about eating food and to walk either in the house or outside the house, but when he doesn't comply, we get in to a fight."

About the non-cooperative attitude of her husband, another participant reported while crying that

"I get hurt and plea to Allah to give him a long life despite of his attitude."

Seventh theme was "caregivers' views about non-caregivers." Caregivers reported that non-caregivers are living a fearless, easy and a tension free life. On the other hand, caregivers are living a disturbed life, they can't be careless and have a lot of responsibilities. One caregiver reported that non-caregiver lives an easy life. They have no tensions, but the life of a caregiver is very miserable. He/she always has negative thoughts about a diabetic patient.

Eighth theme was "coping with care giving responsibilities." It was observed that caregivers had a strong belief in Allah in this reference. Llewellyna, McConnellb, Gethinga, Canta, and Kendiga (2010) found that caregivers used different coping strategies which included "keeping emotions and feelings tightly under control", "having a good cry" and "letting off steam in some way". "Ignoring the problem and hoping it will go away" was the least used coping strategy. In the present study, in addition to all these coping strategies, most of the caregivers were hopeful that Allah would help them.

One participant reported that

"Allah gives me strength to fulfill my responsibilities."

This study showed that caregiver's mental health was more affected than their physical health because of their care giving responsibilities. All the themes emerged from the present study are also found in the Western culture except for the two themes from the caregivers interviews which were "conquering diabetes and their own distress" and "caregivers views about non-caregivers". In the light of the above themes emerging after IPA analysis, the following hypotheses were generated for future research:

1. Diabetes would have a significant effect on the life of a diabetic patient.
2. There would be a significant effect of diabetes on diabetic patient's self-image.
3. Diabetes would have a significant impact on patient's mental and physical health.
4. There would be a significant effect of diabetes on caregivers' life.
5. Caregivers' mental health would be more affected than physical health because of care giving responsibilities.
6. Diabetes would have a significant impact on caregivers' self-image.
7. Spirituality would play a vital role in coping with diabetes.

Conclusion

Diabetes is a progressive and a chronic disease, in which a patient can be gradually deprived from his health and income. It is doubtless that type II diabetes has a significant impact on the patient's lifestyle. Type II diabetic patients experience emotional and physical problems. They undergo shock, stress, anger, fear, depression, denial and so on. To accept the reality of having diabetes is very problematic for the diabetic patients. Type II Diabetics are afraid of insulin injections and other diabetes related complications like heart, eye, and kidney problems. They also become disappointed when they fail to control their blood sugar levels. Along with emotional problems, type II diabetics also face physical problems as loosening of teeth, fatigue, weakness, memory problems, numbness in feet, heart problems, dry throat,

weak eyesight, pains, and dizziness, etc. Physical problems in diabetes also perturb religious activities. Type II diabetics not only face emotional and physical problems, their family life also gets disturbed. They used to do all their work but after being diagnosed as diabetic they became dependent on their family members. The major problem diabetics' face is the feeling of deprivation. Type II diabetic patients cannot eat or drink what they want to like sweets, juices, mutton, cake, pepsi etc. which is the reason behind a strong feeling of food deprivation. Diabetes also affects people's social life. Since to follow diabetes regimen is very difficult especially at work place and social gathering, type II diabetic patients avoid going out on social functions where there are plenty of things to eat and drink. They become socially isolated. Diabetics also have to continuously regulate their blood glucose level. Type II diabetic patients also avoid to discuss their disease with their friends and relatives. People do not have enough knowledge about diabetes and have a negative perception about it and they may give wrong suggestions to diabetic patients regarding their treatment. People also perceive diabetes as a contagious disease. Such type of attitude is very painful for the diabetic patients and they perceive their lives colorless, tasteless, restricted, and fearful.

Diabetes not only affects the life of a diabetic person but also the life of his/her caretaker. Caregivers' family life, health, religious activities, and social life also get affected because of their care giving responsibilities. Caregivers have to spend more time in taking care of the diabetic patient because of whom they delay or ignore their own activities and needs. They also neglect their own health because of time constraints. Caregivers' experience negative emotional reactions like sadness, tension, anger, and disappointment. They also feel fatigue, pains, and mental exhaustion. Caregivers face problems in fulfilling their care giving responsibilities because of the non-cooperative attitude of the diabetic patient, lack of information about diabetes and problem in convincing diabetic patient and regulating their diet. Relatives dispiriting attitude is also very upsetting for the caregivers. If the caregiver is a student then his/her studies are also affected. Care giving responsibilities also have negative effects on caregiver's family life. They face a great deal of stress due to patient's own anger and frustration. In order to avoid getting into conflicts caregivers prefer to change their attitude. Furthermore, care giving responsibilities have a significant effect on their social life. They also feel socially isolated and lonely because they shrink their social circle.

Implications

In the light of the findings, the following needs become salient:

- The need for trained psychologists in all diabetic centers.
- The need for psychologically informed doctors to treat diabetic patients.
- The need to educate general population, diabetic patients and caregivers about diabetes and its associated psychological problems.
- The need of counseling for caregivers' mental health.

In the current study, it was found that diabetes has a great impact on patients' and caregivers' family and social life, psychological and physical health, so there is a need to direct attention on the above mentioned needs to enhance the quality of life of diabetic patients and their caregivers.

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The prevalence of type 2 diabetes (T2DM) is rapidly increasing in Pakistan. Various micro- and macro-vascular complications are associated with disease progression which increases the economic burden not only on patients but also on country. The aim of the present study was to determine the prevalence of micro- and macro-vascular complications among T2DM patients in Pakistan. A cross-sectional study was carried out on 692 T2DM patients during July 2011 to December 2012. The participants recruited in this study were clinically diagnosed by certified diabetologist and endocrinologists in the Pak... Type 2 diabetes is a long-term medical condition in which your body doesn't use insulin properly, resulting in unusual blood sugar levels. Learn more about the symptoms, causes, diagnosis, and treatment of type 2 diabetes. Signs and Symptoms of Type 2 Diabetes. The symptoms of type 2 diabetes can be so mild that you don't notice them.