

Is fasting during Ramadan challenging for diabetics?

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Objective: To assess the fasting challenges for diabetic patients in Ramadan.

Methodology: Sample consisted of 20 diabetics who used to fast during Ramadan from Rawalpindi and Islamabad, Pakistan. We used purposive sampling and included age range 18 to 50 years in months from May to September 2019 (including month of Ramadan). Qualitative interviews were carried out. Statistical analysis was performed using SPSS version 23.

Results: The current qualitative research

demonstrates themes, subthemes and frequencies extracted from the write out interviews of patients with diabetes.

Conclusion: Majority of Pakistani with diabetic issues prefer to observe fast during Ramadan. However, people are cautious and aware of consequences of observing fast in this condition. (Rawal Med J 202;46:314-317).

Keywords: Fasting, diabetes, anti-diabetic agents.

INTRODUCTION

It is estimated that almost 1.1–1.5 billion population of the world are Muslims; means 18–25% of global population.¹ Observing fast (or keeping Fast) during the holiest Islamic month of Ramadan is mandatory and compulsory order of Allah to be followed by all adult Muslims who are healthy.² A prevalence of 4.6% of diabetes is worldwide.³ Muslims from 13 countries observing fast had diabetes, 43% of people were with type 1 and 79% with type 2 thus approximately 50 million people despite having diabetes, fast during Ramadan.⁴ Aardent Muslims, regardless of their ailment assert on fasting despite their healthcare provider's strict advice of not fasting.^{5,6}

Fasting necessitates major changes in dietary patterns and frequency and can induce metabolic modifications potentially in both healthy and ill Muslims.^{7,8} Many people break the limits and take high calories, sugar, drinks and fried items, that put them on risk and increase the sugar level.⁹ In Ramadan, an increase in overall calorie consumption has been reported.^{10,11} Some patients in Ramadan try to reschedule the timings of their medication which may affects the diabetes status.¹² During the month of Ramadan, many patients reduce physical activities because they feel it will be

dangerous for health as they will get faint or become weak.¹³ On the contrary, studies showed a suitable level of exercise during Ramadan, may not affect diabetic condition.¹⁴

Blood glucose level stimulates helping processes in the healthy person's body which decreases discharge of insulin/or the tearing of glycogen stored in body to avoid hypoglycaemia while observing fast in Ramadan.¹⁵ In diabetic patients, this parameter is negotiated due to either sensitivity or infrequently both or because of a dysfunction of secretion of insulin.¹⁴ It was reported that risk of severe hypoglycaemia increased almost seven times during the month of Ramadan in patients with diabetes who observe fast.¹⁵ Although the teachings in Holy Quran gives relaxation to the patients or sick and ill persons from fasting, yet many Muslims prefer to observe fasting in Ramadan.¹⁶ There are few studies which determine how religious beliefs convince diabetic patients for fasting in Ramadan and what effects they experience on their health. The aim of this study was to assess the fasting challenges for diabetic patients in Ramadan.

METHODOLOGY

Sample consisted of 20 diabetics who used to fast

during Ramadan from Rawalpindi and Islamabad, Pakistan. Participants were selected through purposive sampling age ranged 18 to 50 years in months from May to September 2019 (including month of Ramadan). Qualitative interviews were carried out. From May to September 2019, a small but significant study was piloted to observe the effects of the fasting on diabetic patients who fast in Ramadan.

After extensive literature, expert's committee approach (psychologists, psychiatrists and dialectologists) review and 3 focus groups, interview guideline was developed by authors for data collection. Then interviewer organised and conducted quick structured interviews after establishing face and content validity, which comprised of ten open ended questions. Confidentiality of the data was assured by interviewer to all participants.

Statistical Analysis: Statistical analysis was performed using SPSS version 23.

RESULTS

Table 1 displays the demographic features of

diabetic individuals with practices of fasting during month of Ramadan.

Table 1. Demographic features of diabetic individuals with fasting practices (N=20).

Age	Frequency	%
18-28	2	10.00
28-38	11	55.00
38-50	7	35.00
Gender		
Male	12	60.00
Female	8	40.00
Qualification		
Primary	2	10.00
Matric	14	70.00
Graduation	1	05.00
Masters	3	15.00
Marital Status		
Married	14	70.00
Single	3	15.00
Divorced	1	05.00
Widowed	2	10.00

Table 2. Content analysis, frequencies and challenges faced by gender differences of diabetic patients on practice of fasting in Ramadan.

Themes	Sub themes	f	%	Males (f)	Females (f)
Perception of Ramadan in Summer	Difficult	19	95	12	7
	Easy	01	05	1	0
Social Life	Entirely Changed	05	25	2	3
	Somewhat Affected	10	50	8	2
	Impervious	05	25	4	1
Knowledge	Physician	15	75	9	6
	Social Media	02	10	1	1
	Electronic Media	02	10	1	1
	Friends/Family	01	05	1	0
Management of Ramadan	Change in Working Routine	07	35	5	2
	Family Support	11	55	9	2
	No Change in Routine	02	10	0	2
Diet Control during Ramadan	Escalated Frequency of Liquid	17	85	11	6
	Carbohydrate Intake	02	10	2	0
	Protein Intake	01	05	0	1

Table 2 demonstrates themes, subthemes and frequencies extracted from the write out interviews of patients. Table also presents gender differences challenges faced by diabetic patients regarding fasting during the holy month of Ramadan.

DISCUSSION

Results of the present study showed generally good and considerably healthy trend in terms of knowing challenges faced by diabetics during Ramadan when they observed fast. Diabetic patients believed that Physician's' recommendations, social and electronic media campaigns give them a deep insight in understanding impacts of observing fast during holy month. They showed very positive attitude in general towards consistency and Divine faith as they stressed over the Blessing of Ramadan that Allah enabled and chose them to fast during Ramadan. Furthermore, like previous studies, participants of present study were fully conscious about the role of basic knowledge about dehydration and liquid intake to compensate it after "Iftar". It also has been observed that hot summer season did not deter them in avoiding fasting due to their heightened tendencies in divine belief.^{1,2,3,5}

Muslims, either diagnosed with any ailment sick or having such physical wellbeing conditions that might be decline during or in the wake of fasting, incorporating patients with diabetes, are absolved pardoned from fasting during the period of Ramadan.⁵ It is reality that fasting during Ramadan is profoundly considered as a type of strict custom. Many Muslim patients most of the time become unyielding inflexible and strictly observe the month of fasting without having any proper medical or health consultation. Serious consequences during the long stretch of Ramadan have been reported in 40–50 million Muslims with diabetes.^{6,11}

This study results are similar to previous studies that fasting in Ramadan involves major changes in dietary patterns and dietary frequency.^{7,8} Almost all participants also endorsed the previous studies that there is considerable increase (despite taking lesser meals) in consumption and ingestion in relatively larger quantities of sugary or carbohydrate containing food and drinks soon after *Iftar*.⁹ Moreover, the doses of anti-diabetic agents are often

adjusted at this time to reflect the change in routine during Ramadan. The slightly discouraging trend in terms of not taking proper shelter during long and hot summer days was noted. According to those participants, the nature of job and lack of any helping hand to lessen their stressing phase of fast has made their time bit stressful.

During Ramadan, more female participants confirmed that they altered their routine physical activities; from normal to decrease just due to a fear of feeling very weak or losing too much weight.¹³ Some patients with diabetes had confirmed that they had been regularly advised by their physicians to reduce too much physical activity during Ramadan, because the act of fasting may increase the risk of hypoglycemia, exclusively prior to Iftar. However, fewer participants acclaimed that suitable levels of physical activity during fasting did not get in the way with tolerance to physical exercise.¹⁴

No member experienced extreme hypoglycaemia (during the observatory timeframe of this examination) as it was accounted for in one investigation that the peril of serious hypoglycemia expanded as much as sevenfold during the period of Ramadan in patients with diabetes.¹⁵ While observing Ramadan, the decrease in blood glucose levels prompts compensatory systems in sound people which cause a decrease in insulin discharge or the breakdown of as of now put away glycogen to maintain a strategic distance from hypoglycaemia.¹⁵

Present study further affirmed another past perception which induced that fasting in Ramadan was innocuous and didn't genuinely expand the frequency of hypoglycaemic events.¹⁶ Based on the conclusions of the study, an increase in spiritual tendency was observed regarding the attitude of educated population with mediocre families in Pakistani urban and rural community towards divine faith (by observing fast in diabetic condition) and it can be postulated. Beside all these, study has its precincts as due to relatively smaller sample size, results may not be generalized to the whole population which includes those persons who have no formal education and their main source of knowledge is either empirical or observational only.

CONCLUSION

Majority of Pakistani individuals with diabetes prefer to observe fast during Ramadan. However, people are cautious and aware of consequences of observing fast in this condition.

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