



LEVEL OF MISCONCEPTIONS ABOUT DIABETES AMONG RURAL DIABETICS OF HARYANA

Community Medicine

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ABSTRACT

BACKGROUND: Myths and misconceptions about diabetes influence patient's decision of seeking treatment and longer a person lives with misconceptions, the worse their health outcomes are likely to be.

MATERIALS AND METHODS: Cross-sectional study was carried out from September 2016 to January 2017 among known diabetics more than 18 years of age. A total of 400 diabetics were chosen from rural field practice area attached to PGIMS, Rohtak.

RESULTS: Among 400 rural participants, 212 (53%) were males and 188(47%) were females. Majority of rural participants were found to have moderate level misconception 312(78%) followed by 50 (12.5%) having high level misconceptions about Diabetes.

CONCLUSION: The present study confirmed the presence of large number of myths and misconceptions about diabetes and its treatment. The reasons for prevailing myths and misconceptions are multifactorial.

KEYWORDS

Diabetes, Myths, Misconceptions, Treatment

INTRODUCTION

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces.¹ If diabetes is not well treated, complications develop that threaten health and endanger life² and longer a person lives with undiagnosed and untreated diabetes, the worse their health outcomes are likely to be.

The number of people in the world with diabetes has quadrupled since 1980.^{3,4,5} Prevalence of diabetes vary according to area of residence i.e. urban vs. rural. Between 1989 and 2005, the prevalence of diabetes increased significantly from 2.2% to 9.2% in rural populations.^{3,5}

Patient non adherence to treatment guidelines is one of reasons leading to premature deaths due to diabetes. If diabetics don't adhere to treatment properly, their diabetes gets worsened and the risk of having future complications increases. Patient's self-management of diabetes is affected by myths and misconceptions patient carry about disease and its treatment options.^{6,7}

Misconception is defined as a view or an opinion that is incorrect because it is based on faulty thinking or understanding.⁸ Myths and Misconceptions have a strong influence in the life of individuals and their way of living including seeking treatment during illness.⁹

Aim of present study was to know the level of misconceptions prevalent among the rural population of Haryana and their associations with the socio-demographic factors.

MATERIALS AND METHODS

The crosssectional study was conducted in the rural field practice area attached to Department of Community Medicine, PGIMS, Rohtak, Haryana from September, 2016 to January, 2017. Considering 50% prevalence of the awareness about diabetes with a 10% relative error, sample size came out to be 400.⁶

400 known diabetic patients of study area who were above 18 years and had given their consent to participate in the study were included.

Study was carried out in area covered by five PHC's under CHC Dighal which is rural field practice area attached to Department of Community Medicine, PGIMS, Rohtak. 80 diabetic patients were taken from area covered by each of five Primary Health Centres by house to house visit. Interviewer selected first house randomly from adjoining area of each primary health centre and subsequently all houses were covered to find out diabetics till sample size of 80 was met from area of each PHC. Houses where more than one known diabetic was found, only one was

included using lottery method.

A predesigned and pretested semi-structured questionnaire which included information about sociodemographic variables along with myths and misconceptions about diabetes and its treatment was used. The total number of myth or misconception questions were 36. An answer of "yes" to a misconception question was considered a myth or misconception and a score of one was given and an answer of "no" was scored zero. The possible maximum score for any patient was between 0-36.

The scores were then arbitrarily divided into three equal categories of myths and misconceptions: Low level (scores 0-12), Moderate level (scores 13-24), High level (scores of 25-36). The highest myths and misconceptions score represented the maximum number of misconceptions.

RESULTS:

The age of respondents ranges from 21 years to 92 years with mean age of 58.07 ($\pm$ 13.36) years. Out of 400 urban participants, 212 (53%) were male and 196 (47%) were female. (Table-1)

Majority of participants 114 (28.5%) studied till High school. 91 rural participants (22.75%) were illiterate and 77(19.25%) studied till middle school. (Table-1)

Majority of participants 211 (52.75%) were unemployed. 120(63.83%) females out of 188 were housewife, 27 (14.36%) were skilled workers, 19(10.11%) were working in shop or farms and 11(5.85%) were semiskilled workers. 91(42.93%) males out of 212 were unemployed and 44 (20.75%) were clerk or running a shop or farm holder and 34(16.04%) males were professional (Table-1)

Nearly half of study subjects 188 (47%) were having a disease duration of less than 5 years. Nearly one third participants 126 (31.5%) had disease duration of 5 -10 years and 86 (21.5%) were having a disease duration of more than 10 years. (Table-1)

283 (70.75%) out of 400 rural participants didn't have family history of diabetes and 117(29.25%) participants had family history of diabetes. (Table-1)

Majority of rural participants were found to have moderate level misconception 312(78%) followed by 50 (12.5%) having high level misconceptions about diabetes. Only 9.5% participants had low level misconceptions. More males 171(54.81%) had moderate misconceptions than females 141(45.19%) while High level misconceptions were

more in females 29(58%) than males 21(42%). (Table-2)

Misconceptions were more in participants without any family history of Diabetes. 202(71.4%) out of 283 participants without family history of Diabetes had moderate level misconceptions and 47 (16.6%) had high level misconceptions. Out of 117 rural participants with family history of Diabetes, 110(94%) were found to have moderate level misconceptions.

Majority of Diabetics with high level misconception 24(12.76%) out of 50 were having diabetes from less than 5 years, 142(45.51%) out of 312 with moderate level misconceptions had diabetes from less than 5 years.

Out of 126 rural participants having diabetes since 5 -10 years, 98(77.8%) had moderate level misconception and 19(15.07%) had high level misconceptions. (Table-2)

Out of 86 rural participants having diabetes since more than 10 years, 72(83.8%) had moderate level misconceptions 8.1% individual had high and low level misconceptions.

Out of 312 participants having moderate level misconception, majority 89(28.52%) studied till high school followed by 69(22.12%) who were illiterate.

Table 2 depicts that majority of participants with high level misconception belonged to lower and lower middle class. Out of 312 participants with moderate level misconception, 138 (44.23%) belonged to upper middle class followed by 98(31.41%) were from upper class.

TABLE-1 SOCIODEMOGRAPHIC PROFILE OF STUDY PARTICIPANTS (N=400)

	Number Of Participants		Total Number Of Participants (n=400)
Characteristics	MALE	FEMALE	
Age group(years)			
20-39	27(57.45)	20(42.55)	47(100)
40-59	88(52.38)	80(47.62)	168(100)
60-79	84(49.41)	86(50.59)	170(100)
>80	13(86.67)	2(13.33)	15(100)
Education			
Diploma or Graduate	53 (57)	40 (43)	93 (100)
High school	72(63.16)	42(36.84)	114(100)
Middle school	32(41.56)	45(58.44)	77(100)
Primary school	12(48)	13(52)	25(100)
Illiterate	43(47.25)	48(52.75)	91(100)
Occupation			
Professional	34(80.95)	8(19.05)	42(100)
Clerk/Shop owner	44(69.84)	19(30.16)	63(100)
Skilled	25(48.08)	27(51.92)	52(100)
Semi skilled	14(56)	11(44)	25(100)
Unskilled	4(57.14)	3(42.86)	7(100)
Unemployed	91(43.14)	120(56.87)	211(100)
Socioeconomic status			
CLASS V (< Rs 938)	13(59.1)	9(40.9)	22(100)
CLASS IV (Rs 939-1877)	31(54.4)	26(45.6)	57(100)
CLASS III (Rs. 1878 – 3129)	22(36.1)	39(63.9)	61(100)
CLASS II (Rs. 3130 -6260)	87(58.8)	61(41.2)	148(100)
CLASS I (> Rs. 6261 and above)	59(52.7)	53(47.3)	112(100)
Duration since diagnosis of diabetes (years)			
< 5 years	95 (50.5)	93 (49.5)	188 (100)
5-10 years	68 (53.9)	58 (46.1)	126 (100)

>10 years	49 (56.9)	37 (43.1)	86 (100)
Family history of Diabetes			
Absent	141 (49.8)	142 (50.2)	283 (100)
Present	71 (60.7)	46 (39.3)	117 (100)

TABLE 2: DISTRIBUTION OF PARTICIPANTS ACCORDING TO LEVEL OF MYTHS AND MISCONCEPTION

Number Of Participants	Level Of Myths And Misconceptions			Total
	Low	Moderate	High	
	38(9.5)	312 (78)	50(12.5)	400 (100)
Family History				
Present	4(3.4)	110 (94)	3 (2.6)	117(100)
Absent	34 (12)	202 (71.4)	47 (16.6)	283 (100)
Duration Since Diagnosis Of Diabetes				
<5 years	22 (11.7)	142 (75.5)	24 (12.8)	188 (100)
5-10 years	9 (7.1)	98 (77.8)	19 (15.1)	126 (100)
>10 years	7 (8.1)	72 (83.8)	7 (8.1)	86 (100)
Education				
Graduate	6 (8.8)	56 (82.3)	6 (8.8)	68 (100)
Diploma	1 (4)	18 (72)	6 (24)	25 (100)
High school	13 (11.4)	89 (78.1)	12 (10.5)	114 (100)
Middle school	7 (9.1)	62 (80.5)	8 (10.4)	77 (100)
Primary school	1 (4)	18 (72)	6 (24)	25 (100)
Illiterate	10 (11)	69 (75.8)	12 (13.2)	91 (100)
Socio Economic Class				
Upper	3 (2.7)	98 (87.5)	11 (9.8)	112 (100)
Upper middle	4 (2.7)	138 (93.2)	6 (4.05)	148 (100)
Lower middle	14 (22.9)	34 (55.7)	13 (27.3)	61 (100)
Upper lower	12 (21)	31 (54.4)	14 (24.56)	57 (100)
Lower	5 (22.7)	11 (50)	6 (27.3)	22 (100)

DISCUSSION

In our study, 70.75% rural participants didn't have family history of diabetes. The findings are contrast in comparison to study conducted by Ahmed et al¹⁰ where 73.5% participants had family history of Diabetes and 26.5% had no family history of diabetes.

12.5% rural participants in our study had high level misconception. This might be due to lower literacy status of rural participants rendering people from rural areas more vulnerable to high level myths and misconceptions. This is supported by fact that in present study 91 participants (22.75%) rural diabetics were illiterate.

In our study majority of rural participants 78% fall in category of moderate level myths and misconceptions (score-13-24) followed by 12.5% having high level myths and misconceptions (score 24-36) and 9.5% having high level myths and misconceptions (score-0-12). The results were in contrast to study conducted by Ahmed et al¹⁰ where misconception score was low in 57.5%, moderate in 38.5%, high in 4% respondents. The difference in results may be attributed to difference in the socio-cultural beliefs and practices of participants.

High misconception scores were more in participants without family history of diabetes in their family, less educated group, patients with 5-10 years since diagnosis of diabetes, lower socio-economic status and individuals with poor diet control and those who never received diabetic education. In study conducted by Nisar¹¹ et al, family history of diabetes was found significantly associated with reporting myths.

However, Ahmed et al¹⁰ reported that factors which had a significant association with high misconception scores were female gender, rural residence, little or no education, <5 years or >15 years since diagnosis, no self-monitoring and no prior education about diabetes.

Our findings are similar to study conducted by Nisar et al¹¹ where people having 5-16 years of diabetes education were less misconceived.

In our study misconception decreased with duration since diagnosis of diabetes as after 10 years since diagnosis, misconceptions were seen only in 86 (21.5%) participants in contrast to 188 (47%) with diabetes duration of < 5 years. This might be due to fact that with time lapse people tend to gain more knowledge about disease they are suffering from. The findings are in contrast to study conducted by Ahmed et al

where patients who had been diagnosed with diabetes >15 years before were more prone to have a moderate to high misconception score. The difference in results might be due to different awareness level of communities while Badruddin N¹² reported that knowledge of diabetics reporting first time to health facility was less in comparison to ones having diabetes since long duration.

CONCLUSION

High misconception scores were more in participants less educated group, lower socio-economic status, patients with 5-10 years since diagnosis of diabetes, in those without family history of diabetes and those who never received diabetic education.

SOURCE OF SUPPORT: Nil

CONFLICT OF INTEREST: None

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