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Original article

A study on causes and community response regarding diabetes as a community disease of southern Punjab Pakistan

Ahmad Nawaz [a], Javeria Kiran [b], Amina Zafar [c], Shahroz Alam [d], Muhammad Amjad Bashir [e], Munaza Batool [f], Sagheer Atta [e], Mamoona Noreen [g], Muhammad Yousaf Ali [h], Khizar Samiullah [i], Riffat Yasin [m], Mahroz Fazal [i], Wadi B. Alonazi [j], Awais Amjad [i,n], Safdar Hussain [k], Umair Khurshid [o], Muhammad Essa [l,*]

[a] RHC 96/12L Tehsil Chicha Watani District Sahiwal, Punjab, Pakistan
[b] Women Medical Officer BHU 41 EB Arif wala district Pakpattan Punjab, Pakistan
[c] Female Medical Officer BHU Arriyan, District Lahore , Lahore, Pakistan
[d] Nishtar Medical University & Hospital Multan Punjab, Pakistan
[e] Plant Protection Department Agricultural sciences faculty Ghazi University Dera Ghazi Khan Punjab, Pakistan
[f] Department of Soil & Envirnomental Sciences faculty of Agricultural Sciences, Ghazi University Dera Ghazi Khan Punjab, Pakistan
[g] Department of Microbiology and Molecular Genetics Mattital Campus The Women University Multan Punjab, Pakistan
[h] Project Manager Agriculture Initiatives, Mahmood Group of Industries, Multan, Punjab Pakistan
[i] Department of Zoology, faculty of Sciences, Ghazi University Dera Ghazi Khan Punjab, Pakistan
[j] College of Business Administration, Health Administration Department, King Saud University Riyadh, KSA
[k] Department of Agronomy Faculty of Agricultural Sciences, Ghazi University Dera Ghazi Khan Punjab, Pakistan
[l] King Edward Medical University Lahore punjab, Pakistan
[m] Faculty of Veterinary Sciences, MNS, University of Agriculture, Multan , Punjab , Pakistan
[n] United States Department of Agriculture (USDA) Washington DC, USA
[o] Department of Pharmaceutical Chemistry, Faculty of Pharmacy, The Islamia University of Bahawalpur, Bahawalpur 63100, Pakistan

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ABSTRACT

Taking everything into account, the information and attention to diabetes was low, while the pervasiveness of these diseases was high among the number of inhabitants in blood benefactors. This examination discovered that monitoring and having higher diabetes related information can affect the predominance of these contaminations. This is especially the situation among diabetes patients, as the individuals who reacted accurately to in any event four of six information proclamations for every contamination were essentially connected with a negative disease status for the diseases, separately. 66.5% respondents didn't think about strategies to diminish diabetes, yet most showed that schooling on lessening diabetes is required. Hence, a legislature driven quest for proficient strategies to battle and announce sugar decrease is required so as to persistently give proper schooling. There is a need to bring issues to light and disperse proper information to patients and everybody to support uplifting perspectives, advance solid practices, and in this way diminish the spread of these diseases. This investigation has significant ramifications for general wellbeing arrangements and supports the requirement for conduct mediation systems to draw in individuals in solid practices, particularly sexual conduct.

1. Introduction

Diabetes is a chronic metabolic disorder that causes abnormal glucose homeostasis (K. Imam). Diabetes affects more than 171 million people around the world, and that number is probable to increase to 366 million (N. Gul) by 2030. A systematic review and *meta*-analysis of South Asia by Jayawardena et al. (20 l2) showed that the burden of diabetes in the general population of Pakistan is between 3 % and 7.2 % (Jayawarden and Ranasinghe, 20 l2). Compared to Europeans, the occurrence of type 2 diabetes in South Asia is four to six times higher (Rees et al., 201 l). Numer-

* Corresponding author.
E-mail address: dr.essabuzdar@gmail.com (M. Essa).

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ous studies have reported that HCV infection can also underwrite to the development of diabetes. In developed countries, the commonness of type 2 diabetes in patients with HCV infection is higher (2 % to 9.4 %) than in patients with other chronic diseases. Hepatitis (Lonardo et al., 2009; Naing, 2012). This association between HCV infection and diabetes was first suggested by Allison et al. (1994). Many observational studies have been issued since then.

Reactions to the open-finished inquiry which investigated buyers' way to deal with dealing with their sugar admission were classified into three significant topics, which represented 75 % of members' reactions. They thought about that keeping away from prepared and pre-bundled nourishments (27 %) was significant, as was dodging clearly sweet nourishments, for example, cakes, bread rolls, fizzy beverages and organic product juices(27 %). Utilization of current marks (21 %) was additionally seen as a significant guide with regards to overseeing sugar admission. Regarding what buyers would find generally supportive in overseeing sugar consumption they detailed that marking should have been improved (25 %); they needed bigger text style, less data, reasonable part measures. Shading coding of sugar (15 %) over the suggested level was likewise mentioned, while 13 %believed that the current names were the best guide. Very nearly a 10th (8 %) recommended that determining sugar content in teaspoons would be useful.

2. Material method

Deciding on a methodology will be informed by the following factors:

- The chosen topic is very complex and many aspects are responsible for its existence. In order to get a better understanding of how and why the current situation with sugars will arrive at where it will be, different methods will be needed to be considered. Numbers and statistics can tell how big a problem will become for example, but it can be difficult to comprehend how these numbers came to be. Hence, qualitative and quantitative data will be needed to be gathered and analyzed.
- Several parts of this project will be subjected to different opinions and experiences. Research studies, best practice guides or results of case studies, they all will be partly based on interpretations. Other researchers or different participants will have depended on alternative results (especially when working with children).
- This project will focus on aspects that are rather difficult to measure and to prove. It will also be expected that the reactions to the app will be different for each participant. There are many factors that impact how a person approaches an experience like the one in this project and also how he/she reacts to it during and especially after. Cultural background, existing knowledge, or available options at a participant's home can be some of them. This is important to realize because even if this project will be able to make a positive impact on a child, it is probable that the previously stated factors may "overturn" the caused reactions. The child's behavior or opinion can then revert back to the same state it will prior to interacting with the app used in this project.
- Furthermore, the project and its results will likely going to be influenced by myself and the involved people. Other researchers may therefore arrive at other findings and may not reproduce the same results.

3. Results:

3.1. Measuring diabetes

It is evident from the Fig. 1 that the respondents were well aware to measure the diabetes. 94 % of total respondents know how to measure diabetes. It may be due to the fact that now a days more people are being effected by diabetes.

3.2. Chronic disorder

From the figure it can be seen that majority of the population know about the fact that diabetes is a chronic disorder that last for life. 228 respondents (91.2 %) know about this disorder complexities (Fig. 1b).

3.3. Diabetes preventable

From Fig. 2 it can be seen that majority of the respondents 195 (78 %) answer yes for the prevention of diabetes disease while 11 respondents don't know that weather it is preventable or not.

3.4. Symptoms of diabetes

It is evident from Fig. 4 that respondents were well aware of the symptoms of the diabetes. Majority of the respondents know about the symptoms of this disease and only 87 (34.8 %) don't know any symptoms.

3.5. Effect of sugar on diabetes

From Fig. 3 we can see that 160 respondents (64 %) know about the effect of sugar use on diabetes. It is evident from the findings that this awareness is good for the public health issue. Minimum numbers of respondents (4.4 %) don't know about the effect of sugar on diabetes.

3.6. Advantage of exercise on diabetes

240 respondents (96 %) responded yes for the advantages of daily exercise on diabetes while only 8 respondents (3.2 %) don't know about the advantages of exercise on diabetic patient.

3.7. Effect of healthy dietary habits on diabetes

From Fig. 4 it can be seen that maximum number of respondents (55.2 %) know about the healthy dietary habits effect on diabetic patients and 96 respondents (38.4 %) answered no for the question.

3.8. Hospitalized in diabetes

About half of the respondents were already hospitalized due to high or low sugar level. 127 respondents (50.8 %) were never been hospitalized due to diabetes.

3.9. Mood regarding diabetes

Fig. 5 demonstrate that the impact of diabetes on negativity of patient regarding their mood was low as 127 respondents (50.8 %) don't focus weather they are feeling angry, sad, scared or stressed.

3.10. Regular basis check-up

Out of 250 patients of diabetes 144 respondents (57.6 %) responded yes as they regularly visit endocrinologist or diabetes care physician while 94 patients that sum up about37 % do not visit for regular check-up.

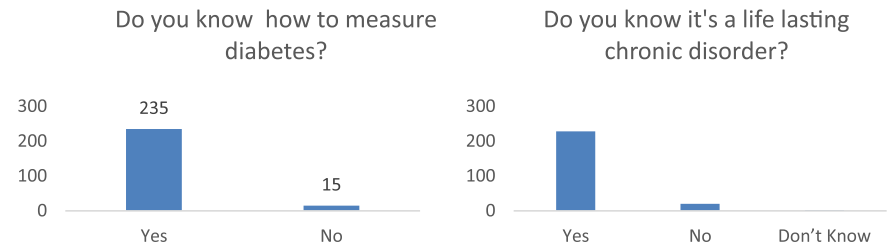

Fig. 1. Measuring of diabetes (b) Chronic Disorder.

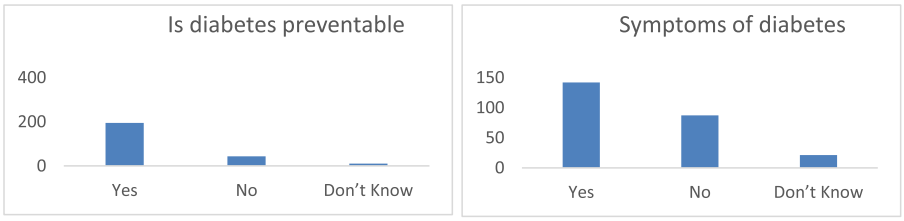

Fig. 2. Diabetes preventable b). Diabetes symptoms.

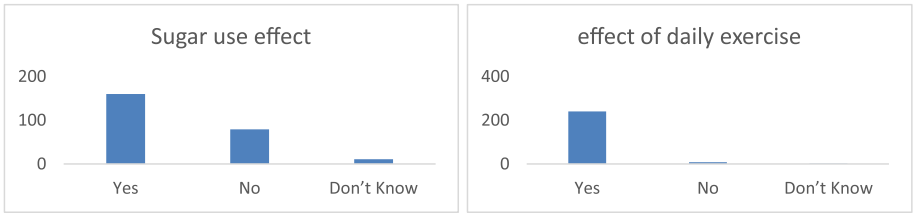

Fig. 3. Effect of sugar on diabetes b)**:** Effect of daily exercise.

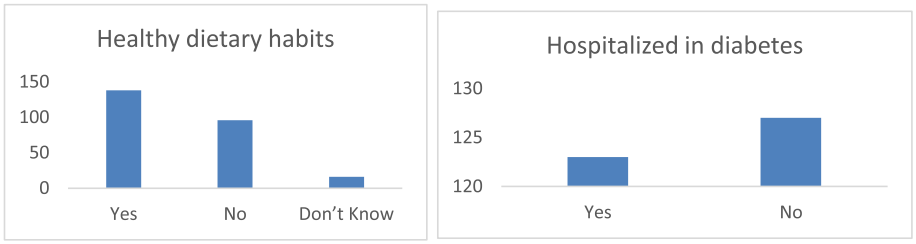

Fig. 4. Healthy dietary habits **b):** Hospitalized in diabetes.

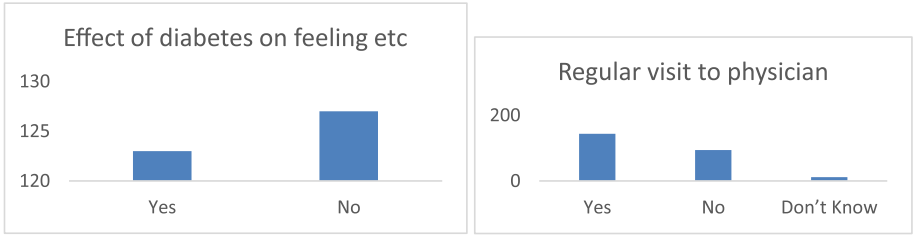

Fig. 5. Effect of diabetes on Mood **b):** Regular basis check up.

3.11. Nutritional supplements

Fig. 6 shows that 143 respondents (57.2 %) use additional nutritional supplements to take care of themselves and 38 % do not use any kind of additional supplements (see Figs. 7 and 8).

3.12. Forgot to take medicine

From the findings of our research it is very alarming that majority of the population forget to take medicine for diabetes as they account 145 in total and 58 %. While 93 respondents care about taking medicine for diabetes on regular basis without any gap.

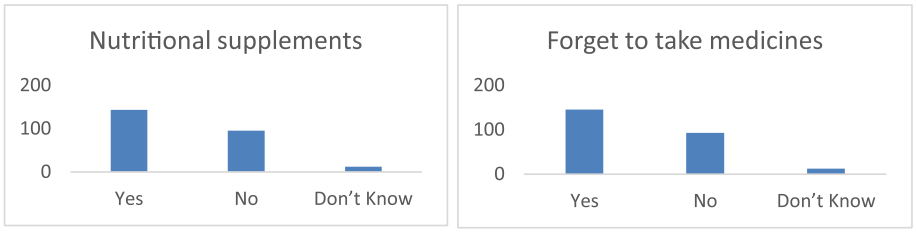

Fig. 6. Nutritional supplement for diabetic patient b): Forget to take medicine.

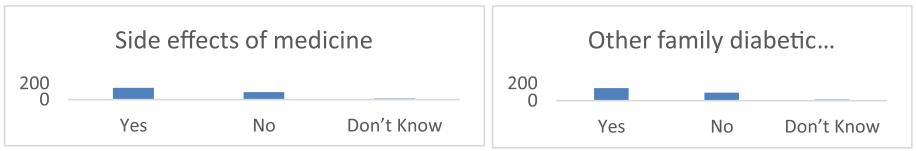

Fig. 7. Side effects of medicine **b):** other family member with diabetes.

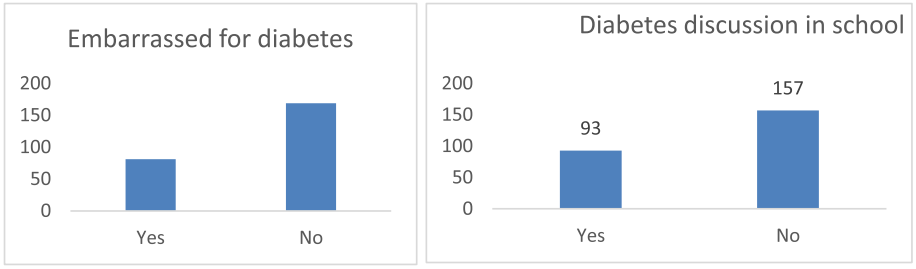

Fig. 8. Embarrassment for diabetic patients **b):** Diabetes discussion in school.

3.13. Side effect of medication

From the findings of our research we can see that majority of the people (58 %) know about the side effects of the medicine they are using while only 37.2 % neglects that they are not aware of any kind of side effects of medication.

3.14. Other family members have diabetes

146 respondents were not alone in their house that were suffering from this disease and 58.4 % were not alone while 36.8 % do not have any other diabetic person in their home.

3.15. Embarrassed for diabetes

From our research findings it can be seen that 169 respondents that cop up to make 67.6 % are not ever been embarrassed for the diabetes.

3.16. Diabetes discussion on school

Respondents (37.2 %) answered yes for the diabetes discussion on school and 157 respondents (62.8 %) answered no for the discussion of diabetes on school.

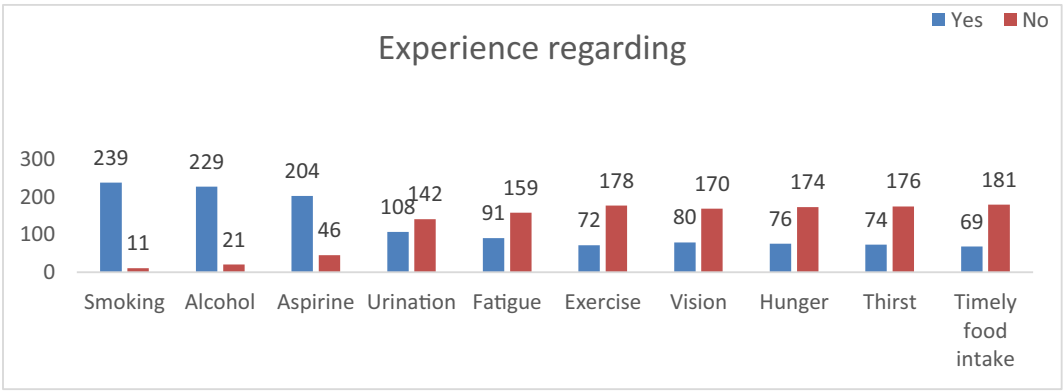

Fig. 9. Experiencing regarding different points.

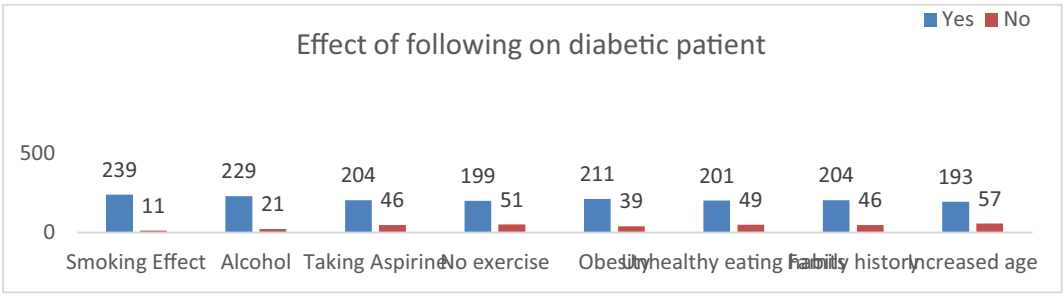

Fig. 9a. Effect of different practices on diabetic patients.

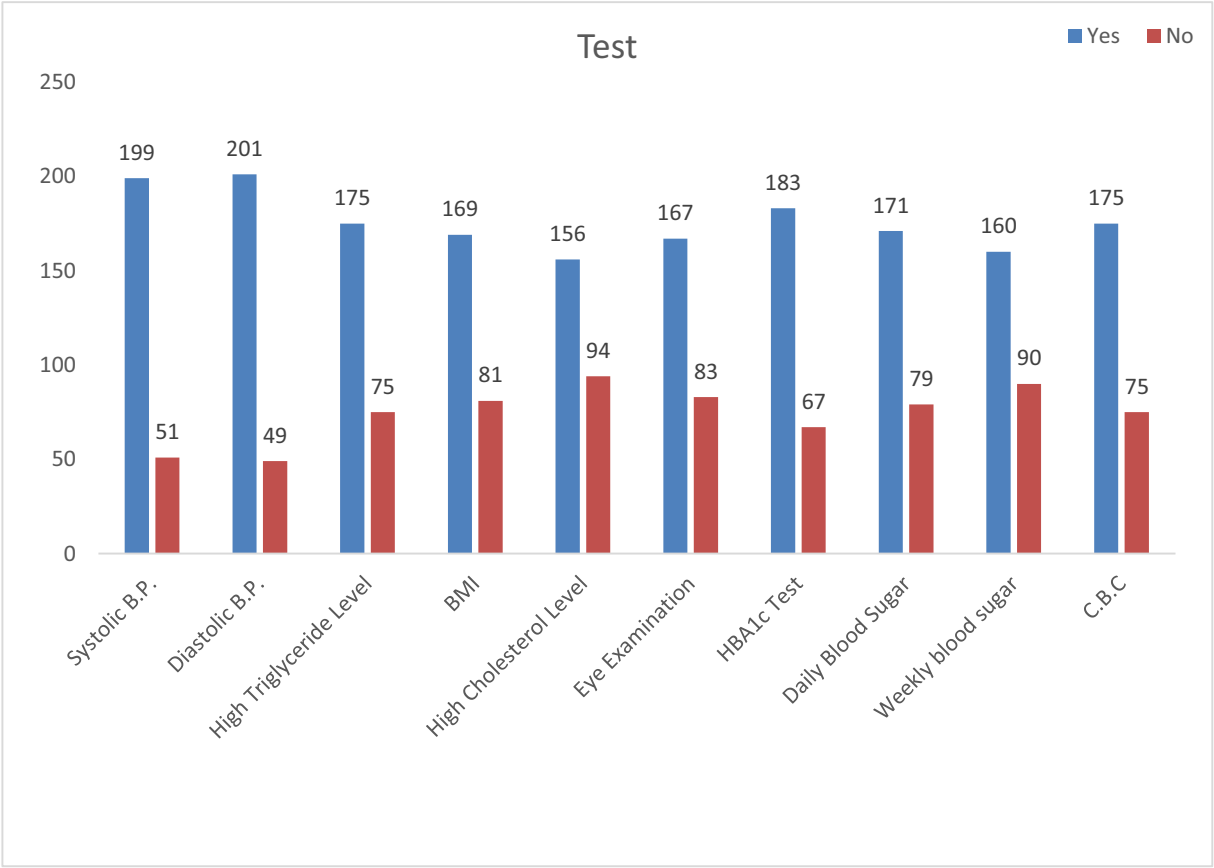

Fig. 9b. Test history of diabetic patients.

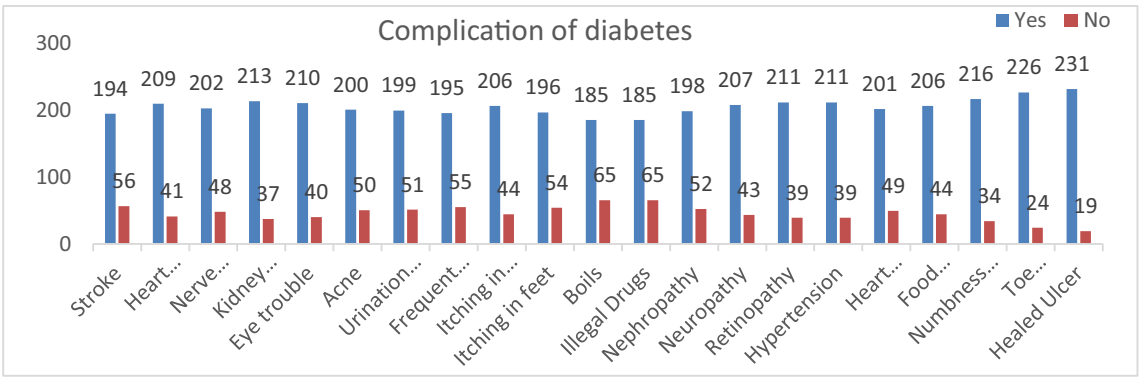

Fig. 9c. Complication of diabetic patients.

3.17. Experience

It can be seen from the figure 17 that 88 respondents have experienced smoking, 21 have experienced alcohol, 91 take aspirin, 108 have frequent urination problem, 91 have severe fatigue problem for no specific reason, 72 do exercise in morning or during evening, 80 have problem with their vision, 76 have problem regarding hunger, 74 fell thirsty very soon and 69 take their food timely.

From the findings it is obvious that 162 respondents haven't experienced smoking, 229 were non-alcoholic, 159 don't take aspirin, 142 do not have frequent urination problem, 159 don't have any problem regarding fatigue for no reason, 178 don't do any exercise, 170 have no issue regarding their vision, 174 do not face any kind of problem regarding hunger 176 don't face any problem regarding thirst and timely intake of food was not practice by maximum respondents 181 (see Fig. 9).

3.18. Effect of following on diabetic patient

From Fig. 9A, it can be seen that 239 respondents have acknowledged that smoking effect their health while 11 responded that smoking don't effect diabetic patient. 229 respondents responded that alcohol effect on diabetes but 21 said that alcohol have no effect on diabetes. 204 respondents take aspirine as they think that aspirine do not effect diabetes while 46 take care and do not take aspirine as they think that it may affect their health. 199 respondents responded that doing no exercise can adversely affect the health. Obesity can also effect the diabetes 211 respondents and 201 respondents responded that unhealthy eating habits can also effect the diabetes. Un-health, family history and age effects the diabetic patient toa great extent as 201, 204 and 193 respondents responded respectively.

3.19. Test diabetic patients

From the Fig. 9B, it can be seen that 199 diabetic patients have systolic blood pressure, 201 have diastolic blood pressure, 175 have high triglyceride level, 169 have BMI, 156 have high cholesterol level, 167 have examined their eyes, 183 have HBA1c test, 171 have daily blood sugar test, 160 have weekly blood sugar test and 175 have complete blood count test while 51, 49, 75, 81, 94, 83, 67, 79, 90 and 75 have not conducted systolic blood pressure, diastolic blood pressure, high triglyceride level, BMI, high cholesterol level, eye examination, HBA1c, daily blood sugar, weekly blood sugar and complete blood count respectively.

3.20. Experience of complication of diabetes

It is evident from the Fig. 9C, that maximum number of respondents have experience almost every type of complication that we have used in our research questionnaire. Maximum number of respondents have faced complication of diabetes in their life. 194 respondents have gone through stroke, 209 respondents have heart rhythm problem, 202 respondents have nerve disorder, 213 respondents have kidney disorder, 210 respondents have eye trouble, 200 respondents have acne problem, 199 experience burn when they urinate, 195 feel frequent cold, 206 have problem if itching in groin, 196 respondents face problem of itching in feet, 185 face bolts and same number of respondents also use illegal drug, 198 respondents have nephropathy, 207 have neuropathy, 211 have retinopathy and hypertension, 201 are having heart problem, 206 faces food complication, 216 have numbness in foot, 226 have toe amputation problem and 231 have recovered from ulcer in the past.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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