

Original Article

Risk Assessment of Pakistani Individual for Diabetes (Rapid) in Gujranwala

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Abstract

Objective: To assess the adequacy of hazard evaluation of Pakistani Person for Diabetes in Gujranwala.

Methods: This community based observational multi centered study design was conducted on patients with type 2 diabetes aged more than 20 years. In this study purposive sampling method was used with a sample size of 385 participants. Data was collected on RAPID score sheet and was analysed by SPSS version 20.

Results: Of the sample of 385 people, 385 participants completed the survey and it was concluded that 70% of the participants did not know that they had a chronic disease.

Conclusion: Simple diabetes risk scores can be used to identify groups at high risk for diabetes and allow for timely intervention. Public awareness programs are needed to educate people about healthy lifestyles to reduce the risk of diabetes.

Keywords: Unhealthy living, awareness, chronic, physical inactivity

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Introduction

The goal of this study is to clarify the utility of the Risk Assessment of Pakistani Individuals with Diabetes (RAPID) instrument in population-based epidemiological research. To identify high-risk groups for diabetes and initiate prompt intervention, a straightforward diabetes risk score can be used. To lower the risk of diabetes, community awareness campaigns are required to inform people about good lifestyle choices. One of the most prevalent diseases of the twenty-first century, type 2 diabetes mellitus is a significant public health issue for both industrialized and developing nations. The growth has serious financial repercussions in addition to health effects. The International Diabetes Federation (IDF) predicts that by 2045, there will be 700 million people worldwide who have diabetes, up from 463 in 2019.¹

Many models have been proposed to survey diabetes risk, yet results are quite often heterogeneous. This incorporates risk evaluation models in Finland, the Unified Realm, Canada, Australia, Germany, China and India, including overview plans, anthropometric, segment, family ancestry and way of life data fostered

a comparative framework called Fast (Pakistan Appraisal of Diabetes in Individuals In danger) to deftly distinguish high-risk people, no lab mediation or specialist interpretation needed.²

In this review, we meant to figure out the legitimacy of the Self-Appraisal for Diabetes (rapid) device in the optional and populace based Public Diabetes Type Diabetes Chance in Pakistan.³ Help with pre-arranged questions. All information were gathered through individual meetings directed by investigators.⁴ Point by point systems have been distributed already. Populace appropriation in Pakistan's four regions (Punjab, Sindh, Khyber, Pakhtunkhwa (KPK) and Balochistan) as per the most recent statistics is metropolitan and provincial. Each state is considered as a layer, and the dissemination of states as a gathering is characterized by each layer.⁵

Tehsils or urban communities are different bifurcations of the district and are viewed as subsets from each distinguished group. Classifications and subcategories were chosen in view of the likelihood of the principal cycle and the "basic guideline" was utilized to get the quantity of each state. The Fast score was utilized to

evaluate diabetes risk in the study.⁶ The Quick score, an endorsed and distributed list for diabetes risk appraisal in Pakistani people, was utilized and was initially evolved from a populace based study.⁷ The gamble score was assessed by the accompanying qualities: age, midriff circuit, and family background of diabetes. 1 point between 40-50 years of age, 3 focuses more than 50 years of age. In the event that the midriff boundary is more noteworthy than or equivalent as far as possible worth (80 cm for ladies, 90 cm for men), it gets 2 focuses and a decent family background of diabetes gets 1 point.

Subjects with a score equivalent to or more noteworthy than 4 were considered in danger of creating diabetes.⁸ As per WHO principles, the oral glucose resistance test (OGTT) is utilized to analyze new diabetes, diabetic patients and typical individuals.⁵ Recently analyzed diabetes is characterized as a fasting blood glucose (FPG) level of 126 mg/dL or higher, or a glycemic load/glucose heap of 200 mg/dL or more, or similar following two hours. Members were considered to have known diabetes in the event that they were analyzed or were on antidiabetic drug. Think about individuals without diabetes assuming FPG is under 100 mg/dL and following two hours/glycemic load is under 140 mg/d. Type 2 diabetes mellitus is an illness brought about by a diminishing in the capacity of pancreatic islet cells (beta cells) to create insulin.⁹ The administration of this movement is truly factor, for certain patients quickly starting to require insulin treatment, while others can be treated forever or for a really long time with oral drugs. Recognizing patients who will advance quickly can be helpful in early consideration, expanded treatment and treatment options.¹⁰

In current review, the work is made to figure out the adequacy of Hazard Evaluation of Pakistani person for Diabetes (Fast) in Gujranwala. Since by Screening the Diabetic Patients in current review, patients will actually want to foresee diabetes without lab or doctor. Therefore the aim of this study is to access the adequacy of hazard evaluation of Pakistani Person for Diabetes in Gujranwala.

Methods

Study Setting: Information was gathered from essential and tertiary consideration emergency clinics of Gujranwala.

Target Population: Type 2 Diabetic patients dwelling in Gujranwala.

Study Design: Local area based Observational multi-center concentrate on plan will be utilized in current review.

Duration of Study: Study depended on a half year .

Sampling Technique: Non-Probability Convenient Sampling Technique.

Sample Size: The example was determined utilizing on the web programming Open EPI, open source mini-computer adaptation 3.01. Considering 100000 populace with half of expected recurrence, accordingly test of 385 was determined at 95% CI and 8 bound of mistake. Recipe used to compute test size is given underneath:

Inclusion criteria: Mature patients over 20 years, both genders, Type II diabetes, Analyzed under 1 year, Occupants of Gujranwala Division were included.

Exclusion criteria: Type I diabetes mellitus, GDM (Diabetes previously analyzed in Pregnancy), Pregnant with diabetes type I or II and Conclusion of diabetes over one year were excluded from this study.

Data Collection Procedure: All members were provided informed agrees to give detail data with respect to the review. Before beginning of the review, agree was taken to continue further. The data of the multitude of members was kept classified under examiner while member was permitted to decline whenever to partake in the review or give any data connected with review. Information was gathered from essential and tertiary consideration emergency clinics of Gujranwala through manual Structures. Patients were enrolled through comfort examining method according to the incorporation models. Before information assortment, members were given informed agree to have itemized data about the review. Followed by the assent, members were given self-directed poll to investigate the extent of pain. Information was gathered through a self-managed survey contained segment subtleties of the member and open/close inquiries with respect to viewpoint of a person about Sickness.

Data analysis plan: Information was placed and dissected on Microsoft succeed. Member's segment subtleties were addressed through engaging measurements while member's reactions are addressed through recurrence and rate.

Results

A total of 385 participants filled the questionnaires out of 385 sample, included males and females of age range 31-34 years and 35-42, 42-60 years respectively.

The detailed description of participants is shown in Table-1

A majority of participants i.e. 100% respond to the rapid questionnaire. Positive family of diabetes was seen in 69.75% people. According to RAPID score individuals who scored >5 were at most risk of diabetes. OGTT status of people at risk of diabetes according to RAPID score showed that 20.1% people with diabetes and 29.2% were pre-diabetic. Whereas, OGTT status of people not at risk of diabetes showed that only 5.6% people with diabetes, 21% were pre-diabetic.

Table 1: Demographic Characteristics

Number of Participants		n = 385
Age	31-34 years	(31.4%)
	35-42 years	(5.7%)
	42-60 years	(2.9%)
Marital Status		
Single	67.1%	
Married	30 %	
Separated	2.9%	
Qualification		
Undergraduate	85.7%	
Postgraduate	14.3%	

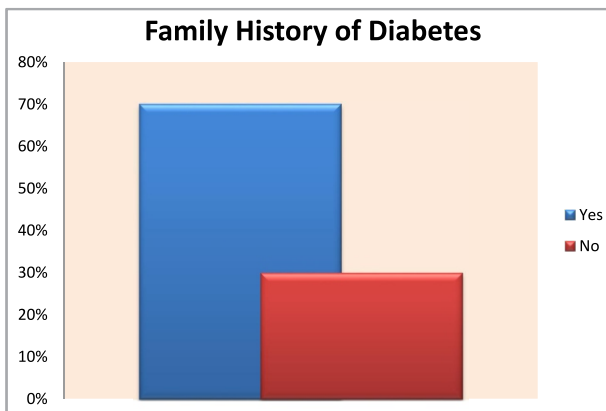


Figure-1 Participants Response to Family History of Diabetes

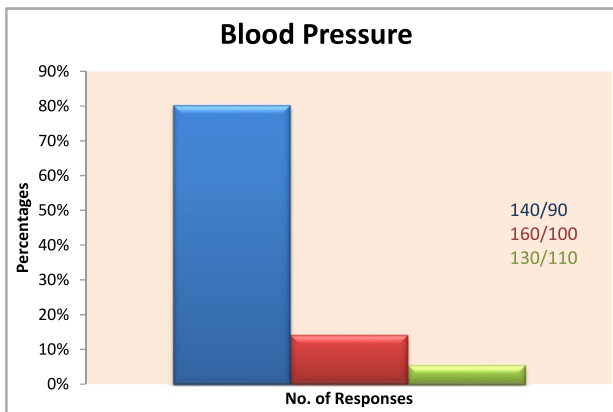
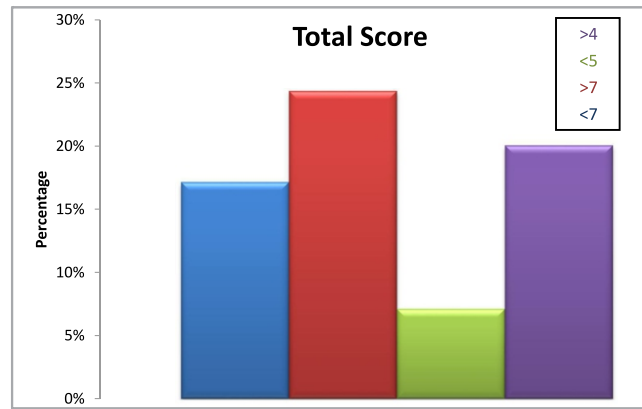


Figure-2 Participants Response to Blood Pressure

It was reported that 24.3% participants were having a blood pressure score of 140/90, 17.1% showed a score of 160/100 while 10.12 % showed a score of 130/110.

It was shown that participants who scored less than 4 were most likely to develop diabetes and its future complications.

Figure-3: Participants total score



Discussion

A review directed in 2016-17 demonstrated that low circulatory strain not entirely settled by age, family background of diabetes, and midriff boundary. That's what the investigation discovered, in light of the OGTT results, 25.9 percent of individuals tried positive for diabetes risk in view of the Fast score, and 18.1 percent had diabetes. As indicated by the Fast score, 1% had no diabetes risk, while simply 7.6% had diabetes as per the OGTT score. We found that diabetes risk scores were reliable and the 2016-2017 NDSP Public Review was contrasted and concentrates on all around the globe. Many examinations have zeroed in on whether type 2 diabetes can be forestalled with way of life mediations in individuals at high gamble.¹¹ In past examinations, weight, as estimated by weight record or midriff perimeter as a gamble variable, assumed a significant part in forestalling diabetes in the beginning phases.¹² In this examination, midsection boundary was utilized more than other gamble scores, for example, weight file, to all the more likely measure blood lipids and metabolic boundaries.¹³ Our essential objective was to give a basic diabetes risk evaluation device, subsequently barring a few different factors like work, training, race, and lipid-lowering treatment, midsection perimeter was utilized as a modifiable gamble component and high scores were given in 2 variables, age and family background of diabetes.) Equal Okay Score.

Subsequent to going through a ton of studies we finished up :

1. Hazard evaluation score used for researching people who are at risk of making diabetes
2. Assessing boundaries were age, waist periphery, and family background of diabetes
3. Participant with score ≥ 4 was considered at chance of making diabetes
4. It is painless, caused significant damage successful and really open score for expecting diabetes

In an examination done in adjoining country India drives the world with greatest number of diabetic subjects

acquiring the sketchy refinement of being named the "diabetes capital of the world". Consenting to the Diabetes Diagram book 2006 conveyed by the Overall Diabetes Partnership, the quantity of people with diabetes in India at this point around 40.9 million is expected to ascend to 69.9 million by 2025 except if basic preventive advances are taken. The purported "Asian Indian Aggregate" suggests specific fascinating clinical and biochemical oddities with regards to Indians which consolidate extended attack opposition, more vital stomach adiposity i.e., higher waist perimeter notwithstanding lower weight record, lower adiponectin and higher tall sensitive C-receptive protein levels.¹⁴ This aggregate makes Asian Indians more leaned to diabetes and unfavorable coronary course disease. At smallest a part of ordinarily because of inherited factors. Nevertheless, the fundamental driver of the scourge of diabetes is the speedy epidemiological move related with changes in dietary plans and reduced actual development as clear from the higher power of diabetes inside the metropolitan people. For sure despite the way that the power of micro-vascular entanglements of diabetes like retinopathy and nephropathy are relatively lower in Indians, the transcendence of awkward coronary stock course illness is a lot higher in Indians contrasted with other ethnic packs. The first upsetting pattern is the move in period of beginning of diabetes to a more energetic age inside the later quite a while. This could inimically affect country's prosperity and economy. Early distinctive verification of in danger individuals using fundamental screening contraptions very much like the Indian Diabetes Risk Score (IDRS) and reasonable lifestyle mediation would massively offer help with keeping away from or postponing the beginning of diabetes and in this manner decreasing the weight on the local area and the country as a total.¹⁵

The discoveries of our outcomes uncovered that greater part of individuals who scored less in Quick poll were in a high gamble bunch, the majority of the people scoring less were some way or another driving stationary way of life and has areas of strength for a past filled with diabetes. The findings of this study proved that diabetes in small cities and towns in Pakistan has reached epidemic proportion and needs urgent management and strategies to overcome its widespread and control its effective management as well as improved primary and tertiary care at all levels. Factors contributing to spread of diabetes are most likely.¹⁶

- Lifestyle and dietary choices: Our modern, sedentary lifestyles and excessive consumption of processed foods.
- Urbanization and Changing Environment: Increased urbanization, accompanied by decreased physical

activity and an ever expanding food market.

- Genetic Predisposition: While lifestyle factors play a significant role, certain populations are genetically susceptible to diabetes.
- Aging Population: With the global population aging there is a subsequent increase in the number of individuals susceptible to diabetes.

Solutions to the curb spread of diabetes:

- Education and awareness campaigns: Educational campaigns should take place at government as well as private level targeting both individual and communities.
- Promoting healthy eating habits: Emphasizing the need of having a balanced diet, rich in nutrients. Taxes on junk might discourage their consumption while subsidizing healthy alternative.
- Encourage Physical activity: Building infrastructure and promotes physical activity can enable masses to incorporate healthy lifestyle into daily life.
- Strengthening and health care System: Government and health care stake holders must allocate resources to enhance diabetes screening and diagnosis.

Conclusion

The discoveries of our review uncovered that overall spread of diabetes requests brief activity from people, medical care suppliers, strategy creators, and society at a mass scale. By addressing the root causes and establishing comprehensive prevention strategies, we can stem the tide of diabetes epidemic. Through education, advocacy and healthier lifestyle choices we can mitigate the consequences of diabetes at all national and international levels.

Conflict of Interest: *None*

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