

Knowledge, Attitude and Practice of Periodic Screening of Diabetes Mellitus among Teachers in Tikrit City in Iraq

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Abstract

Background: One of the most prevalent chronic diseases is Diabetes mellitus that have adverse effect on the health, and the goal today being placed on disease prevention, controlling and screening.

Aim: To assess knowledge, attitude and Practice of periodic screening of DM among teachers in Tikrit city.

Subject and Method: The study is a cross-sectional study that had conducted from 1st of November 2018 until 30 of March 2019 on teachers in Tikrit city primary and secondary school using a questionnaire.

Results: The knowledge regarding the diabetes and its screening a 24% were good and 46% were accepted regarding the disease symptoms and about its control 84% mention that diet modification is the best way then exercise and medication in lower percent while regarding complications 68% (much of them) knowledge were bad, About the importance of periodic screening the great percentage was yes.

Conclusion: There was 93.3% who have knowledge about diabetes mellitus screening among school teachers. Teacher's method for controlling diabetes mostly are diet modifications 84% then exercise 42.5%.

Keywords: Diabetes mellitus awareness, School Teachers, Tikrit.

Introduction

Improvement of the population health depend on disease prevention which is now consider as a superior strategy to decline the morbidity and mortality of most types of diseases^[1]. Diabetes mellitus Type 2 has become wide epidemic with marked deformity, premature death and many medical problems^[2]. DM is a non-infectious disease of public health importance which have a great effect on the life quality. Prevention and control can be obtained by improving the knowledge^[3]. The aim of screening is to discover asymptomatic individuals

who are likely to have diabetes. The prevalence of diabetes type 2 is raised strongly^[4,5].

DM consider dangerous and life-threatening problems, but may be treated by proper managing and prevention. Diabetic self-care training and education consider important in the controlling of DM^[6]. Non-controlled diabetes may end with blindness, limb removal, kidney problems, and vascular and IHD. Screening test to the patients before features appearance may lead to early detection and control, as the same time have no role in reduction of end-organ damage rates^[7]. Many studies on (KAP) of diabetes have been support the needs for prevention, detection, and controlling of diabetic risk factor^[8]. Good education and health programmers development can lead to improvement of the patients knowledge and alter their practice^[9,10]. Cross-section study about the KAP of DM in Saurashtra region, India revealed that poverty, low level of education have the responsibility of low level knowledge about DM.^[11]

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Daily researches about diabetics in India have been find meager levels of education and awareness about diabetes and very bad self-care method^{[12][13]}. Thus, the elevated number of undetected cases, as well as the low level of knowledge and practices, has direct effect in increasing sudden deaths, costly complications, and financial burdens^(14,15).

Aim of the Study: This study was conducted to assess the knowledge, attitude, and practice of periodic screening of diabetes mellitus among teachers in Tikrit city.

Objectives of the Study:

1. Identify the knowledge of teachers about importance of periodic checking and the source of their knowledge.
2. Clarify the knowledge about diabetes mellitus and its complications.
3. Demonstrate the practice of teachers for checking their blood sugar levels.
4. Identify the changes in life style among diabetic patients.

Subjects and Method

Ethical and Approval Consideration: Permission was taken from the teachers to fill the information and they were assured regarding the confidentiality of their responses.

Type of Study: The study is a cross-sectional study that had conducted from 1st of November 2018 until 30 of March 2019. The study was performed among teachers in Tikrit city primary schools (Al Kansa'a School and Al Noor School) and secondary schools (Al Motamizat School, Al Motamizen School, Al Safa School, Science City School and Al Forqan School). Sample:- Sample was chosen by clustered sampling then simple random sampling and the sample include 120 teachers from Tikrit city.

Questionnaire and Interview: The questionnaire used for data collection was designed in Arabic language.

It include demographic characteristics of teachers, followed by close ended and open questions related to their knowledge, attitude and practice of periodic screening for diabetes mellitus. It was administered by the teachers themselves.

Presentation and data analysis: All data management and analysis done by manual statistical method. Data was represented by suitable tables and figures which was designated by computer programs.

Results

knowledge of the teachers about the importance of screening of diabetes mellitus a show higher percentage 93.3% of them show very good knowledge while 6.66% were not well fig (1). The teachers knowledge regarding the disease itself and its symptoms, the results was the following, 25% were good, 45.83% were accepted and 29.16 were bad fig (2). Good knowledge about importance of testing they mention that the source of their knowledge was by doctor counseling 46.66%, media 29.16%, internet 36.66% and 2.5% were by attending a seminar about the disease fig (3). Teachers knowledge about the complications of the diabetes 14.16% of the results of their responses were good which is very small percentage, about 17.5 were accepted and 68.33 were bad fig (4). The result of performing of their periodic screening test of diabetes came as 48% performing the screening test while 52% not which is a high percent, About the method or the test types they used to check their blood sugar, 65% respond with laboratory tests, 42.5% with home devices and 12.5% show that they don't do tests . The teacher's attitude toward the best method of controlling diabetes were 42.5% by regular exercise, 84.16% by diet modifications, 24.16 by medication, and 2.5% show that they don't know fig (5). Regarding the counseling and its role in raising the importance of knowledge about the periodic screening of diabetes mellitus, In the table (1) show the general knowledge of the teachers about the disease and its aspects of treatment and the results came with variable responses.

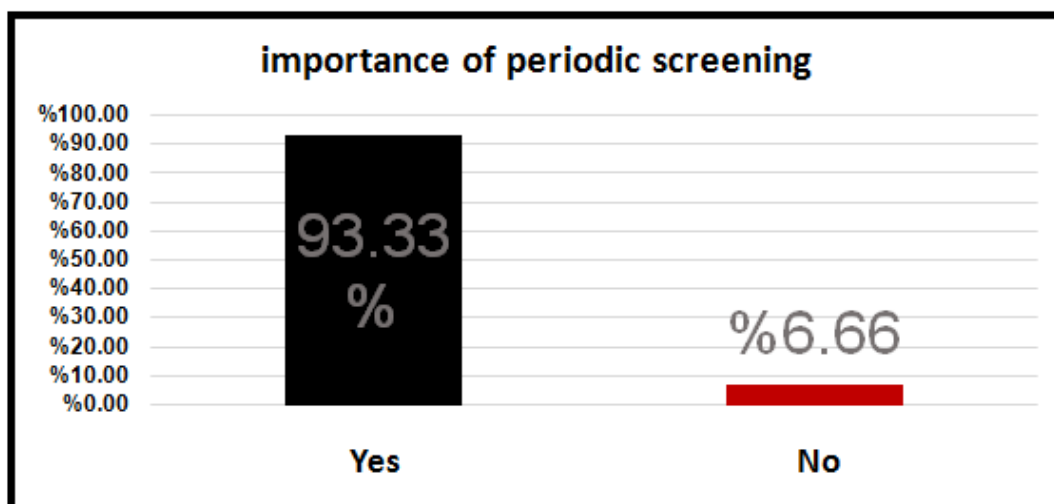


Figure (1): Knowledge of teachers in Tikrit city about the importance of diabetes mellitus screening

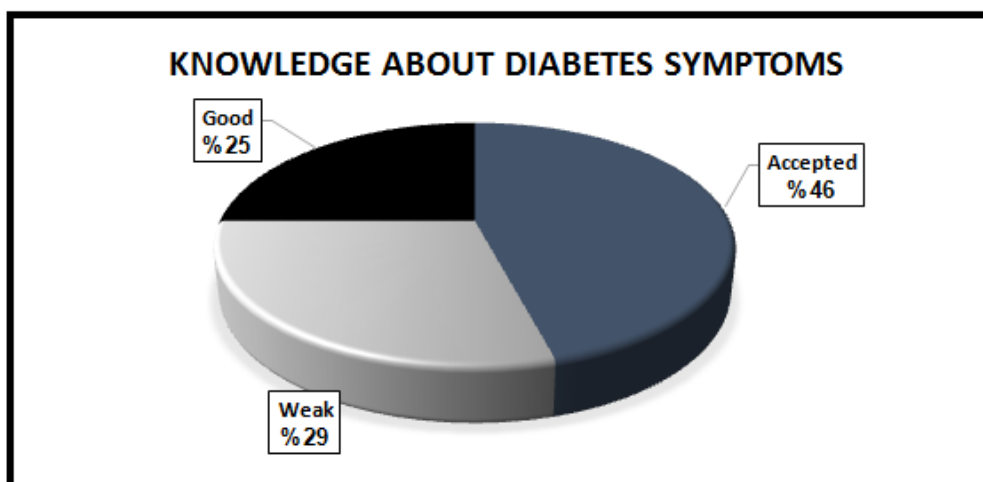


Figure (2): Knowledge of teachers in Tikrit city about diabetes mellitus symptoms.

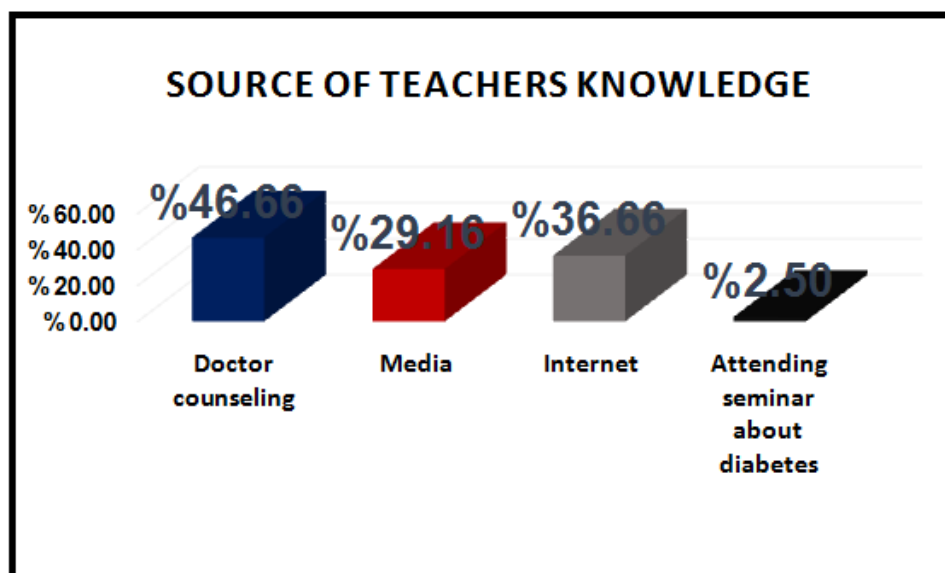


Figure (3): Source of knowledge of teachers in Tikrit city about the importance of diabetes mellitus periodic screening.

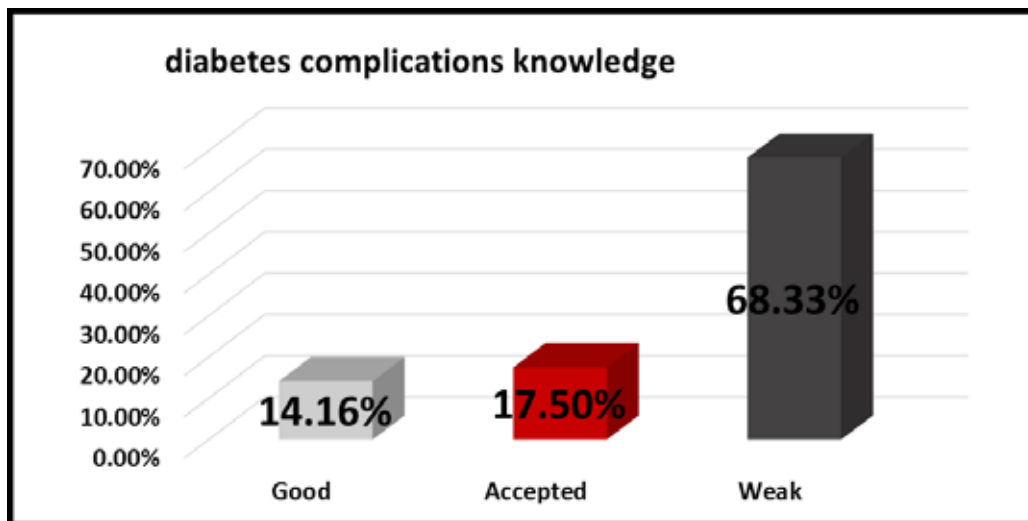


Figure (4): Knowledge of teachers in TIKRIT city about diabetes mellitus complications.

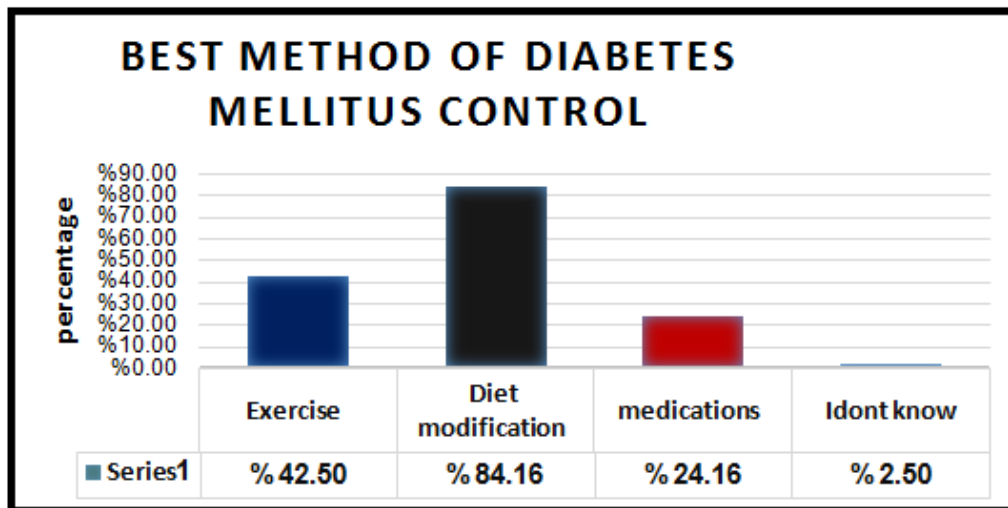


Figure (5): Diabetes mellitus controlling method among Tikrit city teachers.

Table (1): Teachers overall concepts about diabetes.

	Agree	Percentage	Disagree	Percentage
Diabetes mellitus is treatable?	60	50%	60	50%
Diabetes mellitus is treatable by diet and exercise?	81	67.5%	39	32.5%
Can be treated by medications?	76	63.3%	44	36.66%
Regular exercise can be helpful for control?	90	75%	30	25%
Diabetes mellitus complications can occur if not treated well?	111	92.5%	9	7.5%

Discussion

The knowledge of the teachers in Tikrit city about the importance of periodic screening have higher percentage 93.3% of them show very good knowledge while in DebreTabor town, Northwest Ethiopia 20.8% were strongly agreed and 32.1% were agreed, a total

of 52.9%, that people should be examined for diabetes mellitus, this showing better knowledge of teachers in Tikrit than in Ethiopia^[16]. Tikrit teachers mention that the source of their knowledge was by doctor counseling 46.66%, media 29.16%, internet 36.66% and 2.5% were by attending a seminar about the disease. In India

patients believed that they can get information regarding diabetes through Books/Periodicals 28.57% and 10.72% got information by internet and television, 3.57% by other sources while majority of patients 57.14% were not interested to get information^[17]. Teachers knowledge regarding the disease itself and its symptoms, the results was the following, 25% were good, 45.83% were accepted and 29.16 were bad, in comparison with Galle discrete in southern Sri Lanka ^[16] around 37% of the participants was categorized as having good level of knowledge⁽¹⁸⁾. Teachers knowledge about the screening and its benefits for the improvement of patient outcomes when detecting the disease earlier 40% were agreed and in West Bengal, India ^[19], 46.5% of diabetics patients and 35.5% of non-diabetics consider that diabetes can be preventable, but 31.9% of diabetics patients and 14.1% of non-diabetics consider that DM can be controlled not treat, indicating that early detection can help with the prognosis. Teachers knowledge about the complications of the diabetes 14.16% of the results of their responses were good which is very small percentage, about 17.5 were accepted and 68.33 were bad, while in study from Tabuk City, ^[20] about information of teachers about DM complications, the teachers had good knowledge and more appropriate answers.

The practice of teachers in Tikrit city about the performing of their periodic screening test of diabetes and the results was 48% performing the screening test while 52% not which is a high percent after that asked the teachers about the method or the test types they used to check their blood sugar, 65% respond with laboratory tests, 42.5% with home devices and 12.5% show that they don't do tests^[21]. The teacher's attitude toward the best method of controlling diabetes were 42.5% by regular exercise, 84.16% by diet modifications, 24.16 by medication, and 2.5% show that they don't know while in Study conducted in in DebreTabor Town, Northwest Ethiopia ^[16] state that insulin treatment (57.3%), healthy diet (56%) and oral tablets were the main ways of management of diabetes mellitus and regular exercise (32.5%).

About the general overall view of teachers toward the disease and its controlling ways, asked some questions to assess their point of view and by comparing this with other countries results we found that in teachers of Tikrit city 50% of teachers showed by their answers that diabetes cannot be treated, while 51.3% of people in DebreTabor town ^[21], Northwest Ethiopia were agreed that diabetes mellitus is not curable disease, nearly

same percentage of knowledge regarding the disease. Regarding comparison of results about the knowledge regarding diet 67.5% of the Tikrit teachers were agreed that diabetes can be treated by diet modification, while 56% of the people of DebreTabor town, Ethiopia ^[16] were agreed that practicing healthy diet is beneficial for controlling diabetes. In another study, 78% of population in Pakistan ^[18] was agreed that controlling sugar will control diabetes. Showing better results of knowledge in Tikrit than Northwest Ethiopia, but Pakistan results were the best. And regarding exercise, in our study 75% were agreed that it can control diabetes, in Pakistan population 73% thought that exercise is helpful to prevent diabetes, thus the results are nearly the same ^[18]. The knowledge regarding treatment in comparison with other studies 63.3% of them thought diabetes is treatable with medications (tabs and injections) while 57.3% of DebreTabor town, Ethiopia ^[16] people thought Insulin is better for management of DM and 33.2% consider tablets are better for management of diabetes mellitus.

Conclusion

1. A high percentage 93.3% of teachers know the importance of the periodic screening of diabetes mellitus and their knowledge mostly 46.6% by doctor counseling.
2. The percentage of teachers who perform the periodic screening of diabetes is 48% and 65% of them do the screening in the medical laboratories.
3. Teacher's method for controlling diabetes mostly are diet modifications 84% then exercise 42.5%.

Ethical Clearance: From research ethic committee in Tikrit university/college of medicine

Source of Funding: Self

Conflict of Interest: Nill

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