

The Indian Diabetic Risk Score- An Eye Opener Among The School Children From An Urban Background During The Covid- 19 Pandemic

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Abstract:

INTRODUCTION- COVID-19 Pandemic knocked the doors of our country India, in early 2020. Since then, our doors have been shut and our house is also our school. Adding to the already existing sedentary lifestyle, online classes have taken a toll on children's physical and mental health. There is a need for a rigorous awareness program among the youth in preventing the onset of type 2 diabetes mellitus.

MATERIALS AND METHODS- This is an IDRS questionnaire based study circulated among 120 school going adolescent population in Chennai.

Keywords

IDRS(Indian diabetic risk score), School going adolescents , Type 2 Diabetes mellitus, physical activity, sedentary lifestyle.

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I. Introduction:

Type 2 Diabetes Mellitus is a major non communicable disease that poses a great threat to the present generation. The results of the study published by Pradeep A and Praveen et al prove that the youth-onset type 2 Diabetes Mellitus is second to type 1 Diabetes Mellitus among the patients registered for their study^[1]. The results of the study raise the immediate need for mass awareness programs about the risk of developing type 2 Diabetes Mellitus. Prevention is always better than cure. The awareness program should highlight the various risk factors which lead to the onset of the disease. The Indian Diabetic Risk Score is a very useful questionnaire developed by Mohan et al in educating the risk factors associated with the development of the disease^[2]. Adolescents of this generation are at a high risk of developing type 2 Diabetes Mellitus. First among the risk factors is a sedentary lifestyle which has become a new normal way of lifestyle. Especially during this pandemic, the shift of regular school to an online mode has drastically reduced the physical activities of children. Earlier when students went to regular school, they had the opportunity of various physical activities. Studies reveal that India is becoming the diabetic capital of the world. An awareness program to be informed of the risk factors of developing Type 2 Diabetes Mellitus is a need of the hour.

II. Aim And Objectives:

The aim of our study is to create an awareness among the adolescent school-going population of Chennai on the various risks of developing Type 2 Diabetes Mellitus.

III. Materials And Method:

This is a cross- sectional study. It was conducted by circulating the IDRS questionnaire among 120 school going children in the age group of 16- 20. The participants were from different schools across Chennai. The sampling method was a convenient sampling method. Students with a risk score of more than 60% were advised to have their fasting and postprandial blood glucose checked.

IV. Results & Discussion:

Our study has revealed that 23.3% among 120 respondents had no exercise incorporated in their routine. Two of them were found to have high risk and they were advised to have a random blood glucose checkup. This checkup revealed normal blood glucose levels. The participants were informed about the details of the IDRS and persuaded to make exercise a part of their routine. A similar study published by Dr. A. J.

Manjula Devi et al in the year 2013 among 100 first year MBBS students showed that there was an increase of moderate risk group among girls in comparison to boys and the reason for this was mainly lack of exercise.^[3] A similar study carried out among students in Maharashtra has reported that no student had strenuous physical activity in their schedule and only 10% had minimal physical activity^[4]. 2020 IDRS risk score study among budding physicians has also highlighted the lack of physical activity all the more during this COVID pandemic.^[5]

An eye opener study among 250 medical graduates showed that 2 had high risk and the study results revealed 27% of students had no exercise in their routine, 51% had mild exercise ,22% had moderate exercise in their routine.^[6] A study by Vardhan et al revealed that decreased physical activity and family history were the major risk factors among their study population.^[7]

V. Conclusion:

The Pandemic has brought several challenges in our life. Lock down has become the new norm. Physical activity, which should be an integral part of our life, is taking a back seat. This study has helped underline the importance of Physical activity to prevent lifestyle related diseases. Yoga , workout at home could replace outdoor activities in maintaining health. Further massive awareness programs should be conducted to focus on health and sensitize students on the need for physical activity and prevent youth onset of Type 2 Diabetes Mellitus.

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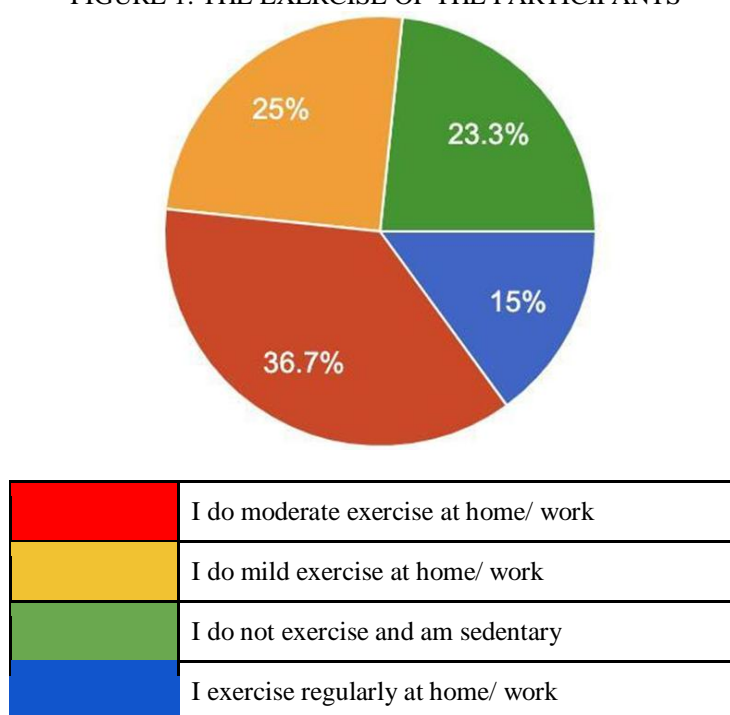
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INDIAN DIABETIC RISK SCORE

SERIAL NUMBER	CRITERIA	CATEGORY	RISK SCORE
1.	age	<35	0
		35- 49	20
		≥50	30
2.	family history	no family history	0
		either parent	20
		both parents	30
4.	physical activity	Vigorous exercise or strenuous activities	0
		Moderate exercise work/ home	10
		Mild exercise home/	20

		wrok		
		No exercise and sedentary	30	
5.	abdominal obesity	<80cm	Female	Male
			0	0
		90cm -99cm	20	0
		more than 90 cm	30	20

FIGURE 1: THE EXERCISE OF THE PARTICIPANTS



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