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Effectiveness of Diabetes Education Package on knowledge and lifestyle among prediabetes adults in urban communities, Bangalore

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ABSTRACT

Diabetes is one among the most problems in health system and a worldwide public health threat that has increased over the past 2 decades. India is that the diabetic capital of the planet-and by 2030, India will have the very best number of diabetic people within the world (WHO). India is that the diabetic capital of the planet, and by 2030; India will have the very best number of diabetic people within the world (WHO) Diabetes is preceded by Prediabetes often leads to type 2 diabetes, stroke and cardiovascular diseases. The objectives of the study were to evaluate the effectiveness of diabetes education package on knowledge and life style among prediabetes adults. Pre-experimental -one group pretest-posttest design was used. The Adults with prediabetes were selected and administered with Diabetes Educational package. The findings revealed that Diabetes Educational Package had significant impact in improving the knowledge and life style among prediabetes adults.

Keywords— *Prediabetes, Knowledge, Life Style, Diabetes Education Package*

1. INTRODUCTION

Diabetes is one among the most problems in health system and a worldwide public health threat that has increased over the past 2 decades. India is that the diabetic capital of the planet-and by 2030, India will have the very best number of diabetic people within the world (WHO). India leads the prevalence of diabetes about 50.8 million. In urban Indian residents, the prevalence of diabetes increased from 13.9 to 18.6 per cent within 6 yrs., which is higher than that in the town (16.4%) and peri-urban villages (9.2%). Diabetes is usually preceded by a condition known as Prediabetes. It is condition where the individuals have higher than normal levels of blood sugar but not high enough to be diagnosed as diabetes. It's a metabolic state relating to insulin resistance, characterized by impaired fasting glucose (IFG) or impaired glucose tolerance (IGT). Prediabetes is an intermediate state between normal regulation of blood glucose and hyperglycemia⁵. Modifications of dietary, physical activity and life style habits would make a great difference among prediabetes adults. The effective tool for primary prevention for prediabetes can be creating awareness and life style modifications.

2. REVIEW OF THE LITERATURE

Extensive review of literature was done on the aspects of prevalence of prediabetes and diabetes among adults, causes and risk factors, screening and management of prediabetes, life style factors like dietary modifications and physical activities to prevent diabetes.

3. METHODOLOGY

Pre-experimental, one group pre-test and post-test design was adopted for the study. Diabetes Education package included the Information, Education and Communication on aspects of significance of prediabetes knowledge and life style modifications in preventing to diabetes. Structured Questionnaire (25 items) was used to assess the knowledge and Food Frequency Questionnaire and Activity questionnaire was used to assess the lifestyle variables. 90 prediabetes adults were selected using purposive sampling technique from Kengeri uppanagara and mariappanpalya urban communities. The pretest was done using the structured knowledge Questionnaire and Food Frequency Questionnaire. The Diabetes Education Package was administered to the prediabetes adults. The

Information Education Communication was provided through flash cards and the self-monitoring of food and activity chart was explained to the adults individually. The posttest Knowledge was assessed after one week of the intervention and the post lifestyle variables were assessed after 3 months of intervention. The reinforcement of the interventions and the follow up was provided to the prediabetes adults for every 15 days once directly and through telephonic conversations.

4. RESULTS AND DISCUSSION

With regard to Demographic Variables, majority of prediabetes adults 80(88.8%) were males, 64(71.1%) were Hindus, 48(53.4%) were in nuclear family, 52(57.8%) had graduate education, 26(28.9%) were earning Rs.30000 and above, 59(65.5%) had family history of diabetes. With regard to knowledge, the mean differed knowledge score was significant with t value 30.02 and mean differed life style score was significant with t value 5.74(Table-1). There was a statistically significant correlation (r=0.53) between the knowledge and life style of prediabetes adults (Table-2). Univariate analysis stated that married, joint family adults, more educated, more income, history of diabetes gained more knowledge score than others. Joint family employees, more educated, more income and with family history of diabetes employees gained more life style modification score than others.

Table 1: Overall effectiveness of diabetes education package on knowledge, life style variable among the Prediabetes adults

Variables	Pretest		Posttest		Mean Difference	Paired t-test	
	Mean	SD	Mean	SD		t- value	P-value
Knowledge	11.83	3.01	20.70	1.89	8.87	30.02	0.001
Life style variable	48.96	3.78	58.87	10.70	9.91	5.74	0.001

Table 2: Correlation of mean differed of knowledge, life style variable among prediabetes adults

	Correlation between	Mean difference	Correlation coefficient
Pre diabetes Adults	Knowledge Vs life style	8.87±2.80 Vs 21.79±5.72	r=0.53 p=0.001***

5. CONCLUSION

The Diabetes Education Package is an effective intervention strategy to reduce prediabetes adults to develop diabetes and to bring about necessary changes in behavior and halting the progression of type 2 diabetes. Major life threatening and devastating disease complications can be prevented by practices of life style modifications. The study recommends to focus Diabetes Education Package as vital component in providing health care services to high-risk adults developing Diabetes.

6. REFERENCES

[1] V.Mohan,S. Sandeep. R, Deepa, B. Shah and C. Varghese., “Epidemiology of type 2 diabetes”., Indian journal medical research.,125., March 2007 pp 217-230.

[2] Bhattacharya PK, Iqbal A. Evaluation of risk of type 2 diabetes mellitus and prediabetes in students of health institutions in a northeast Indian city. Indian Journal of Medical Specialities. 2016 Mar 31; 7(1):3-8.

[3] Rowan CP, Riddell MC, Gledhill N, Jamnik VK. Aerobic Exercise Training Modalities and Prediabetes Risk Reduction. Medicine and science in sports and exercise. 2016 Oct 21.

[4] Block G, Azar KM, Romanelli RJ, Block TJ, Palaniappan LP, Dolginsky M, Block CH. Improving diet, activity and wellness in adults at risk of diabetes: randomized controlled trial. Nutrition & diabetes. 2016 Sep 1; 6(9):e231.

[5] Lindström J, Ilanne-Parikka P, Peltonen M, Aunola S, Eriksson JG, Hemiö K, Hämäläinen H, Härkönen P, Keinänen-Kiukaanniemi S, Laakso M, Louheranta A. Sustained reduction in the incidence of type 2 diabetes by lifestyle intervention: follow-up of the Finnish Diabetes Prevention Study. The Lancet. 2006 Nov 17; 368(9548):1673-9.

[6] Ram J, Selvam S, Snehalatha C, Nanditha A, Simon M, Shetty AS, Godsland IF, Johnston DG, Ramachandran A. Improvement in diet habits, independent of physical activity helps to reduce incident diabetes among prediabetic Asian Indian men. Diabetes research and clinical practice. 2014 Dec 31; 106(3):491-5

[7] Tabák AG, Herder C, Rathmann W, Brunner EJ, Kivimäki M. Prediabetes: a high-risk state for diabetes development. The Lancet. 2012 Jun 22; 379(9833):2279-90