REVIEW ARTICLE

Role of Behaviour Change Communication In Type 2 Diabetes Mellitus

Karri Vijaya, Epari Ravi Kiran

ABSTRACT

The world today, is threatened with a rising burden of type-2 Diabetes mellitus. It is a chronic disease requiring life long medication and life style changes. Diabetes education is the corner stone of diabetes management, because diabetes requires day to day knowledge of nutrition, exercise, monitoring, medication and self care. The participation of the patient in his treatment is the key success factor to treat type 2 diabetes mell- itus, which demands motivation, knowledge and compliance to a difficult and complex life time regimen. The practicing physic- ian can incorporate behviour change communication in regular practice to improve awareness among their patients and help them to realize their needs and bring about a desired change in their behaviour.

Keywords: Diabetes mellitus, Self care, Behaviour Change Communication**.**

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INTRODUCTION

Diabetes mellitus is the fifth leading cause of death in most developed countries and has now been declared an epidemic in many developing countries too. Over the last 30 yrs Type-2 diabetes mellitus has changed from being seen as relatively mild ailment associated with ageing and the elderly to one of the major cause of premature morbidity and mortality in most countries. The number is expected to rise further with population growth, ageing, urbanization and increasing prevalence of obesity and physical inactivity. It contributes significantly to the socioeconomic burden and deteriorates the quality of life. World Health Organization (WHO) estimates that more than 346 million people worldwide have DM. This number is likely to more than double by 2030 without any intervention. Almost 80% of diabetes deaths occur in low and middle-income countries.[1] According to WHO report, India today heads the world with over 32 million diabetic patients and this number is projected to increase to 79.4 million by the year 2030.[2] Recent surveys indicate that diabetes now affects a staggering 10-16% of urban population and 5-8% of rural population in India and Sri Lanka.[3,4]

ADDRESSING NEEDS OF DIABETIC PATIENTS

India is the second largest populous country and has maximum number of diabetics than any other nation, which has earned it the dubious distinction of being the diabetic capital of the world. Unfortunately, over half of these people remain undiagnosed as diabetes is a “silent disease. One of the biggest challenge faced by health care providers is to meet to the needs and demands of the people affected with this chronic illness. The chronic complications associated with this disease are responsible for the majority of mortality and morbidity. Regular follow up by the health care providers will play a significant role in averting these complications. The main relevance of diabetic complications in public health perspective is the relationship to human suffering and disability and the huge socio-economic costs through premature mortality and morbidity. Several studies conducted in India

reveal a poor drug compliance mainly due to poor knowledge about the disease among the general public. Role of health care provider is crucial to patient's understanding about the disease and carrying out appropriate selfcare activities.[5]

SELF-CARE IN DIABETES

Diabetes mellitus is a chronic disease requiring lifelong medication and life style changes. One of the reason for poor outcome is the lack of involvement of diabetic patient in the treatment of the disease. Self-care in diabetes has been defined as an evolutionary process of development of knowledge or awareness by learning to survive with the complex nature of the diabetes in a social context.[6,7] The patient should recieve education about nutrition, exercise, care of diabetes and medication to lower plasma glucose, healthy coping skills and risk reduction behavior. The need to manage diabetes is a difficult task for both diabetic patients and their family members. Self care in diabetes requires the patient to make necessary dietary and life style modification along with the support of health care staff. Their support will help maintain self confidence in the patient and thereby leading to a successful behavior change.[8] These proposed measures can be useful for both clinicians and educators treating individual patients and for researchers evaluating new approaches to care. The participation of the patient in treatment is the key success factor in the treatment of type-2 diabetes mellitus, which demands motivation, knowledge and compliance to a difficult and complex lifetime regimen.[9] Limited knowledge about the disease is common among the diabetics, This can be partly ascribed to practitioners, public health leaders and decision makers.[10]

DIABETES SELF MANAGEMENT EDUCATION

Over the past few decades, patient participation in health care process has been recognized as a critical determinant of successful disease management. This experience is true for diabetes, which requires on going patient self care. Health information is an important resource for helping patient understand and engage themselves in the management of a health condition.[11,12] It is essential that type -2 diabetes mellitus patients posses good knowledge about the illness. This would help them improve their skills in self management like monitoring their blood glucose levels, diet control, life style modification, management of any crisis and foot care etc. Several studies and diabetes prevention programme have reported that life style interven tion can prevent development of type-2 diabetes mellitus.[13,14]

A meta-analysis of self-management education for adults with type-2 diabetes revealed improvement in glycemic control at immediate follow-up. There is growing evidence highlighting the importance of self management skills in diabetes. A review of diabetes self-management education revealed that education is successful in lowering glycosylated hemoglobin levels.[15] A review of diabetes self-management education revealed that education is successful in lowering glycosylated hemoglobin levels.

The current approach to diabetes management is comprehensive diabetes care, comprehensive diabetes care not only involves plasma glucose management, it also emphasizes the need for early detection and management of diabetes related complications, modification of risk factors for diabetes associated disease.[16] Along with compliance, the diabetics should take responsibility for self care. Patient education should be a continuous process with regular reinforcement.[17] This can be best achieved by behavior change communication.

BEHAVIOR CHANGE COMMUNICATION (BCC)

The most important determinant of health are environment, behavior, health service and heredity to some extent. 'Behaviour of an individual, family and community determine their health. So it is very important to promote healthy behavior. Behaviour change communication form an integral part and one of the essential components in management of diabetes mellitu- s.[18] This in turn provides a supportive environme- nt which will enable people to initiate, sustain and maintain positive and desirable behaviour outcomes. Providing people with information and teaching them how they should behave does not

Figure-1: Stages of behaviour change in Diabetes mellitus

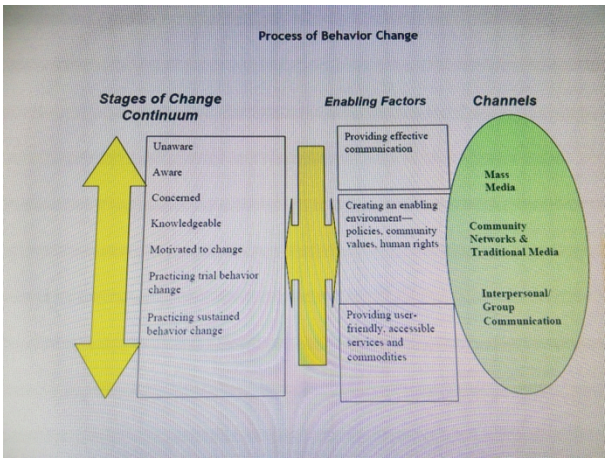

Figure-2: Process of behaviour change

lead to desirable change in their response/ behaviour. However, when there is a supportive environment with information and communication (teaching) then there is a desirable change in the behavior of the target group. Thus, BCC is proved to be an instructional intervention which has a close interface with education and communication. It is a strategic and group oriented form of communication to perceive a desired change in behavior of target group. Studies revealed that traditional IEC methods have stopped giving information and creating awareness but BCC is characterized by its direct approach towards changing behaviour.

Behaviour change communication module suitable for the population with respect to the cultural and social acceptance and their literacy levels can be prepared. A baseline assessment regarding diabetes related to awareness, practices and barriers towards self care and quality of life needs to be done before the module is developed for a particular group. The process of behaviour change is better explained in Fig-1 and Fig-2. The topics for BCC should cover patho-physiology of type -2 DM, glucose monitoring, oral care, foot care, eye care, lifestyle modification, compliance to medication. Use of pictorial charts and explaining the topics in local languages is always more effective. The communication should be simple, easy to use by physicians and any paramedical personnel, easy to understand and recall for the patients. Diabetes education and consequent improvement in knowledge, attitudes, skills leads to better control of disease and is widely accepted to be integral part of comprehensive diabetes care.[19]

A study on British Pakistani woman by Hawthrone K[20] showed improved self care and glycemic control with improved knowledge after culturally appropriate health education was given. Study done by Ramanath KV et al[21] and Yolanda V M et al[22] showed improvement in quality of life after BCC. It is essential that type-2 DM patients posses good knowledge about their illness in order to improve their self management skills and thereby delay complications. The diabetes prevention programme and other studies demonstrated that life style intervention can prevent the development of type-2 DM and reduce cardiovascular risks among participants.[23,24] Studies done by Adepu R et al[25] and Jasmine A[26] showed patients awareness about the cause of the disease, risk factors, symptoms of disease and hyperglycemia improved after BCC. Miraz Azizul Hoque et al[27] and Jasmine A[26] reported better awareness about renal, cardiovascular and ophthalmic complications following BCC intervention. MJ Davies[28] recorded a statistically significant improvement in self care management after diabetes education for newly diagnosed cases. Adherence to medication is the corner stone of metabolic control, and it is widely accepted that any intervention designed to improve metabolic control hinges on the ability to influence patient self care and /or self management behaviours.[29] Ramanth KV et al [21] in his study in Karnataka showed significant improvement ($p>0.05$) in drug adherence following intervention. Diabetic foot is one of the common reasons for hospital admissions among diabetics. Behavior change communication improves the awareness of foot complications, regular foot

examination and foot care. A statistically significant improvement in the practice of foot care (p.0.000) were reported in a study in Chennai by Jasmine A[26] and a study in Vellore.[30]

In reviewing the literature, it is clear that diabetes self management has evolved from the primarily didactic intervention of 1970 and 1980 into the collaborative, more theoretically based 'empowerment' models of the 1990. A minimum threshold of knowledge about the disease is essential to improve self management behaviours. It is reported to be most effective when combined with reinforcement of educational messages.

CONCLUSION

Thus the study recommends that BCC should be incorporated into the general practice. The practicing physician or the medical officer in a PHC can use BCC intervention to improve awareness among the patients. The physician can play a key role in encouraging, motivating diabetic patients to adopt healthy behavior. Since maintaining healthy behavior is not a simple task, reinforcement of BCC has to be done at regular intervals. The BCC intervention in regular clinical practice can be given in small groups at periodic intervals to improve awareness, self care practices, compliance to diet, drug and physical activity. The benefits of this intervention in improving disease management among type 2 DM patients outweighs its limitations of being time consuming.

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