

Active family participation in diabetes self-care: a commentary

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ABSTRACT

Diabetes self-care behavior alleviates the burden of caregivers and makes the management of diabetes mellitus simpler for all. Diabetic patients show better adherence to treatment regimen if conflict level is low and high cohesion level prevail in the family. Family provides emotional & economic support, safe food; takes care intently to ensure the treatment regimen is being strictly followed, reinforce the fight against depression and even mitigates the deleterious effects of stress on the patients. Even taking foods cooked by a family member helps to control blood glucose as well as serum lipid profile. Better health can be provided if the family is considered central to the management of diabetes. Although family support is not shown too directly control the glycemic state, strong family ties can provide an environment where the patients can receive the management with utmost satisfaction and happiness.

Introduction

The prevalence of diabetes is increasing in every ethnic group worldwide and about 150 million cases is projected to be identified only from Asian and Pacific islanders by 2025 [1]. Among the small countries, Bangladesh is leading with 8.4 million diabetic patients and it is estimated that the prevalence of diabetes will be 16.8 million by 2030, which will be 13% of total population [2-4]. The management of diabetes is complex and challenging due to chronicity and complexity of the disease process. Fisher et al. have identified four categories of factors in the management of diabetes namely patient characteristics, stress, provider-patient relationship and social support; the last one being the least studied [5-7]. In adults, diabetes self-care can improve glycemic control and prevent development of related complications, hospitalization and mortality [8]. Social support is required for health behavior change regarding diabetes self-care [9]. Among the components of society, family is the smallest unit and its members provide significant social support for the self-care of adult diabetic patients [5,8,10]. Besides providing disease related

information, buying groceries and mitigating stress, family members provide emotional and appraisal support and hence contribute to the adherence to self-care across chronic disease [11]. Social support is of paramount importance in countries like Bangladesh where in spite of having largest number of diabetic patients, healthcare infrastructure is not that much developed and still patient-doctor ratio is 1:4,336 and patient-nurse ratio is 1:8,226 [12]. Although family system is not directly associated with glycemic control [6], family provides support and an environment where a diabetic patient can survive longer with utmost satisfaction. Considering family based approaches as central to the management of diabetes will ensure a life with better health. Efficacy and side effects of hypoglycemic agents can be reported in initial stage from the family members, which comprise an important part in post-marketing surveillance. However, young patients with diabetes get more attention from the family as parents are always concerned about their children. Things are mostly opposite in cases of elderly people, where much attention is needed. In normal circumstances, elderly people require much attention and help to perform

KEYWORDS

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their daily chores. Diabetes only adds sufferings to that. A great attention from the family will mitigate the burden of the disease and will provide a comfortable environment for the patient to fight in a sound and calm soul.

This article reviews studies documenting the extent of the role of family in achieving and maintaining optimum glycemic control and adherence to self-care. Recommendations are mentioned simultaneously for improving adherence to regimen, maintaining optimum glycemic control and care of complications developed from diabetes by the interplay of family relationship- thus highlighting the contribution of family.

Diabetes Self-care

Diabetes self-care includes a range of activities (e.g., self-monitoring of blood glucose, eating a low-saturated-fat diet, and checking one's feet) and it is now well established that these different components do not correlate highly [13,14]. Saleh et al. showed that increased level of knowledge improves self-care, particularly monitoring blood glucose [15]. Family members keep the diabetic patient updated about the advancement in the world of diabetes, be it newer drugs or modern device making glucose monitoring easier. They also arrange regular follow up of the patient. Some diabetes education programs offer self-management training. Documented benefits of these programs include improved emotional well-being, self-care behavior, and glycemic control [16,17]. In the early steps of extreme insulin resistance management, diabetes self-care is considered with utmost importance [18].

Family as healthcare provider

Families may require to redistribute responsibilities, modify daily routines and renegotiate family roles due to diabetes [19]. Family ties play an important role in the management of diabetes. It has been shown that low level of conflict, high levels of cohesion and organization and good organization patterns are associated with better regimen adherence [20]. Diabetes related support from spouse also helps in good regimen adherence [21]. Sudha et al. showed that marital status is associated with health perception, particularly widowhood is associated with poorer self-rated health & economic and emotional support from kin improve outcomes of any disease [22].

The role and responsibility of every member of the family is not delineated well. Chesla et al. found that some Chinese families believe that the family should assist and encourage, but ultimately the patient is responsible for self-care [1]. Perhaps people from most of the areas of Asia bear the same perception.

Family support also serves to buffer the deleterious effect of stress on glycemic control and thus influences diabetes management [23].

Instrumental support in the areas of diet, exercise, medication adherence, managing the appointments of physicians and blood glucose monitoring are reported most common support from the families. Spouse can also help in developing the habit of self-care by helping to frame up a timetable [8].

Diabetic patients show some aggressive symptoms that can be noticed and tolerated only by the family members. Asian families have a reputation of being tolerant and responsible to the members no matter how tough the hardship is. The commonest problem in this group is irritability. Family members complain this problem predominantly when blood glucose level rises. This poses a threat to family harmony. It was shown that, emotional fluctuations were not attributed to the person, rather than the disease [1].

In most Asian sub-groups, marital bonds are respected and family is considered a source for the provision of welfare. In rural area of Bangladesh, joint families are disintegrated into nuclear families now. Most of the families in the cities are of nuclear type for decades. In spite of physical nucleation, the emotional ties to the joint family remain intact, particularly in rural area [24]. This statement gives us a notion about how strong the family ties can be in this part of the world. Though, no study done about the economic burden of the disease in this part of the world, it assumed to be much lesser than the estimated cost of \$132 billion in US chiefly due to the role of family [25].

■ Fighting depression

Brenda et al. found that instrumental support was more associated with depressive symptoms as it possibly arouses sympathy, which was most obvious for diabetic patients [26]. However, psychosocial coping resources (mastery, self-esteem, self-efficacy etc.) are found to be protective against depressive symptoms with or without chronic diseases [27]. Turning

to religion or spirituality is also a coping mechanism and most of the Asians are practicing followers of religions. Everybody here usually follows his/her own religion cordially [28]. Thus family members can inculcate a habit of following our own religion and thus fight the depression keeping it at a minimal stage. On the other hand, Elizabeth et al. showed that 12% of diabetic patients receiving self-care suffered from major depressive illness, which in turn lowered adherence to treatment regimen [29].

■ Enhancing motivation

Motivational interviews, which can help to identify and reinforce the behavior change can be used to enhance motivation for diabetes self-care [30,31]. Clinicians can focus on the benefits of behavior change and actively guide the patient and the family to anticipate the benefits of change successfully [32].

■ Family in realistic expectations

Realistic goal setting is a key element of the behavior change process. Similarly, realistic self-care expectations is a key emotion-focused coping skill [33,34]. Never to overeat or to miss daily exercise, never to forget taking medications etc. are unrealistic expectations. Failure to maintain the goals initiate a cycle of guilt, self-blame, demoralization and further failure [32]. To avoid this vicious cycle, patients should be encouraged to be realistic about their goals and not to mind one or two slips. One's effort to get back on track is more important. Constant encouragement from the family can help a person setting up reasonable goals and achieving them at ease.

■ Dietary habit and nutrition

Catherine et al. found that dietary modification is the toughest challenge. Carbohydrate rich foods, like rice, wheat etc. considered responsible for obesity in the relatively poorer country where adequate food for all not ensured. In a South Asian family, the patient has minimal chance to take away meals and cheat him/her by consuming sweetmeats and other carbohydrate rich foods. One of the family members usually cooks food for the patient following guidelines for the diabetic patients. So, the patient has to follow the bindings with or without his will. In a study, it was found that when family members cooked the majority of the meals for the patients, the individual was significantly more likely to have lower triglyceride, cholesterol, and HbA1c

levels [35]. So, regular homemade food can be very useful in controlling diabetes mellitus in the long run and it is only possible when family will step forward to fight the battle against diabetes.

■ Limiting complications and disability

During any physically challenged condition, one has to be dependent on any other person for completing daily pursuits. Family members come forward with empathy to overcome the condition alleviating the burden as much as possible. For instance, a patient with diabetes foot ulcer always finds a person in the family for regular dressing and a helping hand to perform daily activities totally free of cost in Bangladesh [36].

■ Non-supportive behavior from family members

Lindsay & Osborn described non-supportive behavior dividing them into two- sabotage behavior and miscarried help. If family members are informed about diabetes but do not help the patient in performing diabetes self-care behavior, it is known as the sabotage behavior. The family members lack motivation or willingness to make lifestyle change. Miscarried help means intent to perform supportive behaviors that infringe upon an individual's self-efficacy and lead to relationship conflict about diabetes [8]. So, family members involved in diabetes management if not motivated enough can affect the diabetes self-care.

Conclusion

As a result of the studies on the role of family in diabetes self-care, we now know that the families having diabetic patients should redistribute the roles of their members and show sensibility by controlling inner conflicts and getting more coherent, motivate the persons to stay motivated and seek treatment as per rule, help to nullify the negative impact of disease related depression, provide homemade food, limit the impact of disability and other complications and show more sympathy than shown to non-diabetic individuals to increase the patients' own participation in the management of diabetes mellitus. Moreover, the family can keep the glucose level checked when the patient is not maintaining too stringent control. All the family members should refrain from all sorts of non-cooperative outlook to strengthen diabetes self-care.

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