

SUMMARY

Aging is a process that converts healthy adults into frail ones. Diabetes mellitus is the leading cause of end stage renal disease, blindness, non-traumatic amputations, and impotence. Patient with diabetes mellitus are 2-4 times more likely to develop a heart attack or stroke and hypertension than those without diabetes mellitus. So, health promotion programs are very important for diabetic elderly and the nurse must educate the diabetic elderly and their caregivers to cope with diabetes at home through home visits.

This study aimed to assess, design and implement a health promotional program for diabetic elderly people and their caregivers and to evaluate the degree of improvement in the impact of this program on diabetic elderly and their care givers' knowledge, attitude and practice at their own homes.

This study followed a quasi-experimental design, conducted in 3 areas: the Diabetes Outpatient Clinic of Benha University Hospital, the Diabetes Outpatient Clinic of Toukh Hospital, and the elders' homes in Kalyobia Governorate. A convenience sample of 100 elderly diabetics and their caregivers were included.

Three tools were developed to assess knowledge, attitude and practice of the elderly diabetic and their caregivers. The tools included: (1) an interviewing questionnaire; (2) an attitude interviewing questionnaire;

and (3) an observational checklist. All these tools were used pre and post implementing the program.

Based on the data collected from the interviewing questionnaire and observation checklist, as well as, literature review, the health promotion program was developed by the researcher. Evaluation of the program was done by comparing the obtained results of assessment of diabetic elderly and their caregivers' knowledge, attitude and practice about their health promotion of diabetic elderly before and after implementation of the program, using the same forms at pre-test and post-test.

The main results of this study were as follows:

- Knowledge scores of diabetic elderly and their caregivers as regard 'basic knowledge', 'complications of diabetes', 'prevention, 'management of diabetes', 'diabetes monitoring', 'insulin', 'daily meals' and 'self-hygiene and exercise' improved significantly after the application of the program ($p < 0.001$).
- Prior to program, most attitude items of diabetic elderly toward themselves were generally negative. However after the program, significant changes occurred in all attitude items which became more positive ($p < 0.001$).
- The burden experienced by the caregivers before the application of health promotion program significantly decreased after its application in all items.
- Before the program, none of the diabetic elderly performed urine examination, insulin injection and foot care. However, after the program, significant improvements took place in these 3 observation

items ($p < 0.001$ for each). As regard caregivers, performance scores of caregivers as regard urine examination, insulin injection and foot care improved significantly after the application of the program ($p < 0.001$ for each).

- Poorly performed activities of daily living were exercise in 37%, mobility in 16% and dressing 7% of cases. Good performance was observed for more than half of diabetic elderly in bathing (58%) and feeding (56%).
- Home environment was generally poor in all items.
- Before and after the program, knowledge, attitude and practice scores did not differ significantly according to age, gender, occupation, marital status of diabetic elderly. However, before the program, knowledge scores were significantly higher among diabetic elderly who were able to read and write than those who were illiterate ($p < 0.001$).
- Before and after the program, knowledge, attitude and practice scores did not differ significantly according to age, gender, occupation, marital status of caregivers or their relation to the diabetic elderly. However, before the program, knowledge scores of caregivers were significantly higher among more educated ($p < 0.001$).

The study concluded that the application of a health promotion program improves knowledge, attitude and practice of diabetic elderly and their caregivers; elderly diabetic are dependent on their caregivers; and knowledge, attitude and practice of diabetic elderly and their caregivers regarding care of diabetic elderly are deficient.

The study recommended screening of elderly in Kalyobia Governorate for diabetes mellitus. All diabetic elderly and their caregivers must receive proper health education about diabetes mellitus at outpatient setting during their follow up visits or during home visits. More attention is to be directed to encourage home visits and home care for diabetics, by community health nurses. Mass media should play a significant role to disseminate the needed information about health of the elderly and the diabetes mellitus. Continuing nursing education about diabetes should be available for nurses at Diabetes Clinics. Geriatric clinic/hospital should be available in Kalyobia Governorate to facilitate health services for elderly people.