



THE ROLE OF NURSES FOR PATIENT WITH DIABETES

Hamzah Hassan Albagouly^{1*}, Fatimah Jafar Alamri², Nadia Mohammed Rawas³, Mashael Salem Batayyah⁴, Majed Awad Ayad Al-Juhani⁵, Youssef Dakel Al-Saadi⁶, Kholoud Omar Abdo Alnami⁷, Nafeesa Abdulalah Alhwsawi⁸

¹*Nursing Technician King Fahd General Hospital Jeddah

²Specialist Nurse King Fahad Hospital Jeddah

³Specialist Nursing King Fahd General Hospital Jeddah

⁴Nurse Technician King Fahad General Hospital Jeddah

⁵Health Administration Specialist. East Jeddah Hospital. Jeddah

⁶Health Administration Hospital. East Jeddah Hospital. Jeddah

⁷Nursing King Fahd General Hospital Jeddah

⁸Nursing King Fahad Hospital Jeddah

***Corresponding Author:** Hamzah Hassan Albagouly

*Nursing Technician King Fahd General Hospital Jeddah

DOI: 10.53555/ecb/2022.11.11.181

INTRODUCTION:

Diabetes stands for an epidemic persistent problem. Amongst the adults aged 25 years and also older, the frequency of diabetic issues is above 9 % and it will continue to boost [1]; without a doubt, the variety of people with diabetes was 376 million in 2014 and also anticipated to rise to 591 million by 2030 [1]. Diabetes mellitus is a major source of boosted mortality, morbidity, and also handicap. In diabetic patients the threat of establishing heart diseases (CVD), including coronary artery disease (CAD), stroke, and also outer artery condition (PAD), is enhanced by 2 to fourfold and CVD is the primary reason of death in diabetes mellitus [3]. According to current International Diabetes mellitus Federation (IDF) information, diabetes mellitus creates 4.9 million fatalities per year worldwide, specifically every 7 s someone dies from diabetic issues as well as concerning 50 % fatalities concern diabetic person patients under 60 years of age [4] On top of that, diabetes is a significant cause of special needs, as it is the leading cause of end-stage kidney condition, loss of sight before 70 years of age, and also nontraumatic amputations [5].

Despite the fact that diabetic issues is an international concern, there is no universal technique to treating individuals. As an example, there are countries where the healthcare system permits registered nurses to have a major function in treating and enlightening individuals with diabetic issues, whereas in various other countries physicians have a leading duty in diabetic issues treatment. In feedback to the demand for boosted support of individuals with diabetic issues, multiple changes have taken place in therapy and also care of diabetic person clients and also nurses' duty, which intended to encounter the boosting rate of diabetes morbidity. Such changes consist of the establishment of the position of Diabetes mellitus Expert Nurse (DSN), which permits nurses to recommend medications in countries like the UK and also to be involved in the numerous levels of the healthcare system and to not be restricted to hospitals [6]. This growth has actually been discovered to boost scientific end results, to reduce unacceptable referrals to secondary care, and also to lower outpatient participations [7]. Nonetheless, it is essential to report that, although several countries readjusted the Diabetic issues Specialist Registered nurse to their health care systems, nurses' functions and also work settings differed among nations. For instance, in Sweden and the Netherlands, majority of DSNs operate in integrated or community settings as well as have suggesting legal rights. In contrast, many DNS in

Ireland are hospital-based as well as not every one of them are enabled to recommend [7]. Nevertheless, there is strong evidence in the literature to show that nurses have a significant result when counselling patients on self-management of their disease, especially when combined with the positive care management design as well as decision-making assistance [8].

Offered the raised variety of individuals with diabetes in healthcare facility wards as well as the advancements explained over, it would be reasonable to assume that the majority of nurses would certainly have adequate experience and also expertise about diabetes inpatient care, and that patients with diabetes would receive appropriate as well as top quality care. Surprisingly, there is evidence in the literature from previous years that patients often reported poor experiences of inpatient treatment specifically in connection with the lack of diabetes understanding among health center personnel, especially registered nurses [9], inadequate details, and also hold-ups in being released arising from diabetes, especially when diabetes mellitus was not the initial reason for admission [9].

DISCUSSION:

General functions of the restorative client education All education actions are based on a certain design which is developed in order to sufficiently handle the intricacy of a chronic illness, such as diabetic issues [10]. In other words, there must be the shift of diabetes care from anecdotal clinical checks toward a persistent treatment version (CCM). This version adopts an organized approach to reorganizing treatment via partnerships in between health and wellness systems and communities with a healthcare group that actively collaborates in the client treatment [10]. Additionally, CCM takes into account all facets of the individual, including social, social, as well as family members features. The main elements of Restorative Person Education And Learning (TPE) have been reported in the National Requirements for Self-Management Education And Learning [11], in the Joint Placement Statement of the American Diabetes Mellitus Association, the American Organization of Diabetes Educators, and also the Academy of Nutrition and also Dietetics, as well as in the International Criteria of the IDF [12]. They include ability and empowerment to change lifestyle, keep adequate diet regimen as well as physical activity, handle the illness, and comply with a program of regular medical checks and also education and

learning sessions. The individual must be able likewise to appropriately determine as well as

appropriately fix issues as a result of the disease. The goal of this method is to acquire an enhancement in medical results, including prevention of complications, global health condition, as well as lifestyle. TPE should be an interactive process between health and wellness teachers as well as individuals. Wellness instructors should make it possible for individuals to manage their diabetes mellitus autonomously as well as clients should proactively collaborate in this procedure. To achieve an efficient and also active PTE, instructors ought to precisely examine individuals' level of education and learning and expertise, by setting individualized as well as suitable objectives, and also progressively increase their capability to autonomously handle their condition. There go to the very least 3 kinds of approach to provide person education and learning. Education can be carried out throughout common care, particularly during the clinical checks. This kind of education and learning usually stands for the simple shipment of info concerning the way of life changes and also one of the most crucial elements of the monitoring of the disease: info usually is not customized, but rather typical. In other words, this modality frequently does not stand for a structured education and communication between person and staff member might be rather scarce. As a matter of fact, structured TPE has particular attributes and can be delivered en masse or person (one-to-one) education and learning. Team TPE may have the complying with benefits if contrasted to individual TPE [13,14]: (1) an increased cost-effectiveness, as it is possible to group with each other much more clients with just one instructor; this raises the education and learning time (get in touch with time) to which persons with diabetes mellitus are subjected; (2) the possibility for each and every person to gain from the experiences of various other team participants. However, it may be difficult to apply group education and learning due to logistic as well as organizational troubles [14]. The major benefit of specific TPE is that it really permits to totally customize intervention as well as create a mutual depend on and also strong interaction between person and educator.

Various studies have explored the topic of nursing care and also have actually found that registered nurses are greatly associated with enlightening patients to manage their disease [15], and also some studies reveal the changing function of registered nurses in diabetes education and

learning [16]. Further studies have actually revealed the positive results that education carries individual problem when nurses are entailed and the relevance of diabetes mellitus

education in improving glycemic controls [15,16]. Extra particularly, in a recent detailed exploratory research, Bostrom et al. [15] showed the value of a nurse's duty in person education, with the Diabetes Expert Registered Nurse (DSNs) individuals claiming that one of their duties was "being the instructor", as well as they described how they enlightened people regarding their new situation, informing them regarding the condition, possible difficulties, and also examination outcomes.

The significance of diabetic issues education is also highlighted as well as sustained by 2 studies. Wexler et al. [17] showed this via a randomized trial research study with two groups. In their research study, one group received typical care, as well as the other obtained both intervention care as well as official education from experts such as professional nurses that were approved at the start of the study. The searchings for of the research showed that the mean sugar levels were reduced for the inpatients in the treatment group than in the typical treatment group. In the year after discharge, the average glycosylated hemoglobin (HbA1c) reduction was better in the treatment group. The HbA1c test is an essential measurement that shows the average blood glucose levels in the last 3 months. Likewise, Raballo et al.'s

- study, in which individuals obtained either usual treatment or team treatment, discovered more positive end results for those in group care. Their outcomes show mainly favorable mindsets in the people that were appointed to group treatment, in contrast to those that had standard brows through. Furthermore, clients in group treatment shared a wider, more articulated range of principles associated with the treatment they obtained than those that received normal treatment and that mainly revealed ideas with unfavorable connotations. In general, the outcomes recommend that individuals under typical treatment tend to explain their problem and setting of treatment with concepts that mostly indicate negative attitudes, inadequate empowerment, as well as an exterior locus of control. One component of advanced treatment discovered in the current literature is that breakthrough nurse practitioners are associated with the monitoring of medications specifically for individuals with diabetes,

- which is a duty that unspecialized nurses usually carry out when they are caring for hospitalized patients. Moreover, various researches referred to the nurses' duties in prescribing medicine, with a few of them revealing distinctions regarding the level to which nurses have that duty. As an example, Carey as well as Courtenay [20] found that over two-thirds of respondents that are specialized registered nurses in the UK recommended medications for usual issues of diabetes, including hypertension, hyperlipidemia, and heart disease, although they devoted less than 20% of their week to doing that. This reveals that most of their time registered nurses take care of various other nursing care activities, as well as just a minimal time is committed to encouraging on and also ordering medication.

There is proof to suggest that registered nurses are extra involved in carrying out management duties for diabetes mellitus care with their daily routine. Specifically, two researches referring to the jobs that nurses have included managerial duties [21] which nurses are "striving to be an executive", "being the bureaucrat", and "being the administrator" [17].

An additional role of registered nurses that was found in the literary works testimonial is that of partner. Meeting the role as a physician's aide is an important feature of the profession, and also registered nurses believed that obtaining the job done, such as assisting the physician as opposed to giving effective care, was more important [22]. To put it simply, nurses preferred to perform tasks as per the medical professionals' orders instead of spending quality time with clients to enlighten as well as sustain them. Moreover, evidence was located that General Practitioners (GPs) commonly acted on practice nurses' analyses of individuals, and this reveals that General practitioners trust fund PNs' analyses and that nurses believed they acted as intermediaries between medical professional and also patient, oriented doctors regarding difficulties or issues, aided physicians in therapy referrals, and also suggested doctors about drugs [21]. Additionally, nurses arranged and planned diabetic

issues treatment between themselves, doctors, and other professionals, while they stressed that they shared their goal in diabetes treatment with various other experts [17].

Roles of nurses in motivation:

The literary works additionally revealed that nurses embark on the role of incentive to diabetic individuals. A number of studies [21] have actually revealed the importance of nurses in diabetic people' emotional assistance. Peyrot et al. [23] reported that registered nurses in comparison with medical professionals perceive greater needs in patients and also see psychosocial problems as having fantastic influence on self-care as well as control of people with diabetic issues. Additionally, despite the fact that nurses offer even more psychosocial care, they see themselves as much less able to take care of a person's psychosocial needs in comparison to looking after their physical demands. They also report fantastic accessibility of psychosocial specialists and also more often refer patients to them. Likewise, an additional research [21] discovered that nurses perceive it to be vital to aid their diabetic people really feel safe as well as enthusiastic. This is further sustained by a research [18] which located that nurses participated in helping clients to resolve denial and illiteracy. This is additional sustained by another study [24] which located 4 techniques that nurses used to encourage clients: Informing for empowerment, promoting as well as assessing actions, cherishing the partnership, as well as humanizing complexity.

Having recognized the duty of nurses in diabetes care and the obstacles as well as facilitators they encounter in fulfilling their duties in the existing literary works and also desiring the documented contribution of nurses to boosting the health outcomes of client with diabetes mellitus [1], we propose a model for attaining enhanced nursing treatment of individuals with diabetes mellitus. More specifically, our design recommends a three-rung stepladder (Figure 1) [1].

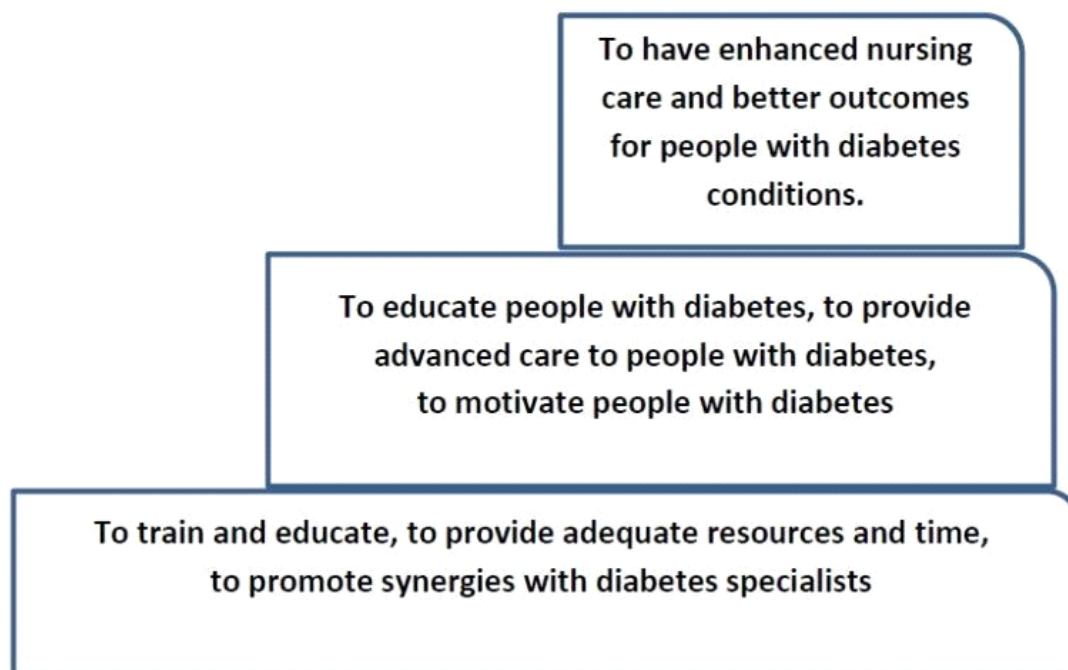


Figure 1: The stepladder model for achieving enhanced nursing care of people with diabetes.

CONCLUSION:

In spite of the growths and efforts that have actually taken place over the last year in order to challenge the illness of diabetes mellitus, the stats still highlight the multitude of people with diabetes mellitus, which is raising worldwide. For that reason, considering that registered nurses have a crucial role in being associated with diabetes care, it is of great importance to clearly identify their numerous and also in some cases complex functions in diabetes mellitus treatment, to get rid of any kind of obstacles that prevent them from offering adequate care, as well as to improve any type of facilitators that permit them to provide the most effective high quality care.

REFERENCES:

1. Nikitara M, Constantinou CS, Andreou E, Diomidous M. The Role of Nurses and the Facilitators and Barriers in Diabetes Care: A Mixed Methods Systematic Literature Review. *Behav Sci (Basel)*. 2019;9(6):61.
2. Health Services Executive (HSE). *Diabetes Expert Advisory Group*. Kildare: Health Services Executive (HSE), 2008.
3. Kahn R, Anderson JE. Improving diabetes care: the model for health care reform. *Diabetes Care* 2009;32:1115–8. doi: 10.2337/dc09-0184
4. World Health Organisation (WHO). *ROADMAP. Strengthening people-centred health systems in the WHO European Region*, 2013.
5. Russell AW, Baxter KA, Askew DA, et al.
6. . Model of care for the management of complex type 2 diabetes managed in the community by primary care physicians with specialist support: an open controlled trial. *Diabet Med* 2013;30:1112–21. doi: 10.1111/dme.12251
7. Carey N., Courtenay M. An exploration of the continuing professional development needs of nurse independent prescribers and nurse supplementary prescribers who prescribe medicines for patients with diabetes. *J. Clin. Nurs.* 2010;19:208–216. doi: 10.1111/j.1365-2702.2009.02943.x.
8. Patlak M. New weapons to combat an ancient disease: Treating diabetes. *FASEB J.* 2002;16:1853. doi: 10.1096/fj.02-0974bkt.
9. Riordan F., McHugh S.M., Murphy K., Barrett J., Kearney P.M. The role of nurse specialist of integrated diabetes care: A cross sectional survey of diabetes nurse specialist services. *Br. Med. J.*
10. *Open.* 2017;7:e015049. doi: 10.1136/bmjopen-2016-015049.
11. Watts S.A., Sood A. Diabetes nurse case management: Improving glucose control: 10 years of quality improvement follow-up data. *Appl. Nurs. Res.* 2016;29:202–205. doi: 10.1016/j.apnr.2015.03.011.
12. R.E. Glasgow, R.G. Hiss, R.M. Anderson, N.M. Friedman, R.A. Hayward, D.G. Marrero, C.B. Taylor, F. Vinicor, Report of the Health Care Delivery Work Group: behavioral research related to the establishment of a

- chronic disease for diabetes care. *Diabetes Care* 24, 124–130 (2001)
13. M.A. Powers, J. Bardsley, M. Cypress, P. Duker,
 14. M.M. Funnell, A.H. Fischl, M.D. Maryniuk, L. Siminerio, E. Vivian, Diabetes self-management education and support in type 2 diabetes: a joint position statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Diabetics. *Diabetes Care* 38, 1372–1382 (2015)
 15. L. Haas, M. Maryniuk, J. Beck, C.E. Cox, P. Duker, L. Edwards, E.B. Fisher, L. Hanson, D. Kent, L. Kolb, S. McLaughlin, E. Orzeck, J.D. Piette, A.S. Rhinehart, R. Rothman, S. Sklaroff,
 16. D. Tomky, G. Youssef, Standards Revision Task Force, National standards for self-management education and support. *Diabetes Care* 37(Suppl 1), S144–S153 (2014)
 17. M. Stellefson, K. Dipnarine, C. Stopka, The chronic care model and diabetes management in US primary care settings: a systematic review. *Prev. Chronic Dis.* 10, 120180 (2013)
 18. J. Jarvis, T.C. Skinner, M.E. Carey, M.J. Davies, How can structured self-management patient education improve outcomes in people with type
 19. 2 diabetes? *Diabetes Obes. Metab.* 12, 12–19 (2010)
 20. Boström E., Isaksson U., Lundman B. Diabetes specialist nurses' perceptions of their multifaceted role. *Eur. Diabetes Nurs.* 2012;9:39–44b. doi: 10.1002/edn.204.
 21. James J., Gosden C., Winocour P., Walton C., Nagial D., Turner B., Williams R., Holt R.I.G. Diabetes specialist nurses and role evolution: A survey by Diabetes UK and ABCD of specialist diabetes services 2007. *J. Diabetes Med.* 2009;26:560–565. doi: 10.1111/j.1464-5491.2009.02716.x.
 22. Wexler D., Veauharnais C., Regan S., Beauharnais C.C., Nathan D.M., Cagliero E., Larkin M.E. Impact of inpatient diabetes management, education, and improved discharge
 23. transition on glycemic control 12 months after discharge. *Diabetes Res. Clin. Pract.* 2012;98:249–256. doi: 10.1016/j.diabres.2012.09.016.
 24. Raballo M., Trevisan M., Trinetta A., Charrier L., Cavallo F., Porta M., Trento M. A study of patients' perceptions of diabetes care delivery and diabetes. Propositional analysis in people with type 1 and 2 diabetes managed by group or usual care. *Diabetes Care.* 2012;35:242–247. doi: 10.2337/dc11-1495.
 25. Mutea N.K., Baker C.M. Kenyan nurses' involvement in managing hospitalized diabetic patients. *Int. J. Nurs. Pract.* 2008;14:40–46. doi: 10.1111/j.1440-172X.2007.00660.x.
 26. Carey N., Courtenay M. Nurse supplementary prescribing for patients with diabetes: A national questionnaire survey. *J. Clin. Nurs.* 2008;17:2185–2193. doi: 10.1111/j.1365-2702.2007.02238.x.
 27. Siminerio L.M., Funnell M.M., Peyrot M., Rubin
 28. R.R. US nurses' perceptions of their role in diabetes care: Results of the cross-national Diabetes Attitudes Wishes and Needs (DAWN) study. *Diabetes Educ.* 2007;33:152–162. doi: 10.1177/0145721706298194.
 29. Kassean H. Nurses' Perceptions of the role in caring for diabetic patients at the primary care level: A case study from Mauritius. *J. Health Manag.* 2005;7:207–213. doi: 10.1177/097206340500700203.
 30. Peyrot M., Rubin R.R., Lauritzen T., Skovlund S.E., Snoek F.J., Matthews D.R., Landgraf R. Patient and provider perceptions of care for diabetes: Results of the cross-national DAWN Study. *Diabetologia.* 2006;49:279–288.
 31. Donohue-Porter P. Nursing's Role in Courage Development in Patients Facing Complications of Diabetes. *J. Holist. Nurs.* 2013;31:49–61. doi: 10.1177/0898010112461975.