



The Roles of Nurses in Health Coaching to Improve Self-Care Management among People with Type 2 Diabetes Mellitus: A Scoping Review

M. Syikir¹, Elly L. Sjattar², Kusrini S. Kadar², Nur Isriani Najamuddin¹

¹Study Program of Nursing, STIKES Bina Generasi Polewali Mandar, Indonesia

²Faculty of Nursing, Universitas Hasanuddin, Indonesia

Correspondence author: M. Syikir

Email: syikirm@gmail.com

Address: Jalan Pangale, Madatte, Sulawesi Barat 91315, Indonesia Telp. 085343846523

DOI: <https://doi.org/10.56359/gj.v6i1.643>



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

ABSTRACT

Introduction: Type 2 diabetes mellitus (T2DM) is a global health concern requiring long-term self-care management. Health coaching has emerged as a behavioral intervention to support individuals with T2DM, yet the specific roles of nurses within this context remain underexplored.

Objective: This scoping review aims to map existing literature regarding the roles of nurses in health coaching interventions designed to enhance self-care management among individuals with T2DM.

Method: The review followed the Joanna Briggs Institute (JBI) methodology for scoping reviews. A systematic search was conducted across databases including PubMed, ScienceDirect, Wiley Online, and ProQuest, targeting peer-reviewed studies published between 2009 and 2019. Articles were selected based on predefined inclusion criteria and underwent thematic analysis to identify recurring roles of nurses.

Results: Thirteen studies met the inclusion criteria. Four primary nursing roles emerged in health coaching for T2DM patients: educator, supporter, advocate, and care coordinator. Nurses provided individualized and group education, emotional and informational support, facilitated communication with healthcare providers, and ensured continuity of care through coordination. Three models of care coordination were identified, with nurses acting as intermediaries, collaborators, or lead coaches.

Conclusion: Nurses play multifaceted roles in health coaching to enhance self-care management in individuals with T2DM. Among the identified roles, the integration of educational and supportive functions showed the greatest impact on improving patient

outcomes. These findings underscore the importance of integrating nurse-led health coaching into diabetes care strategies to empower patients and improve glycemic control.

Keywords: diabetes self-care, health coaching, nurse roles, type 2 diabetes mellitus

Introduction

Diabetes mellitus (DM) is an endocrine disorder and represents a significant public-health problem. Type 2 diabetes mellitus (T2DM) is the most common form, accounting for approximately 90 % of all cases worldwide (International Diabetes Federation, 2020). Diabetes and its complications—such as chronic kidney disease, heart failure, retinopathy, and neuropathy—are among the leading causes of death globally, with more than 80 % of these deaths occurring in low- and middle-income countries (International Diabetes Federation, 2017). Early detection, diagnosis, and cost-effective treatments can save lives and prevent or significantly delay devastating diabetes-related complications.

The high prevalence of T2DM poses a major challenge for health workers. As a chronic condition, T2DM requires long-term self-management and sustained patient engagement in behavior change. In many cases, T2DM can be prevented by adopting a healthy lifestyle—such as increasing physical activity and managing diet—to improve quality of life and reduce morbidity and mortality among people living with T2DM (Hood et al., 2015). Approaches that support patient behavior change include diabetes self-management education (DSME) and lifestyle-support interventions (Agency for Healthcare Research and Quality, 2016).

In recent years, health-coaching interventions have emerged as a promising strategy to initiate behavioral change and improve self-care management in people with chronic disease (Almondes et al., 2017; Patja et al., 2012). Achieving optimal self-care in chronic disease management—including T2DM—requires a collaborative, interdisciplinary team approach to goal-setting and individualized care (American Diabetes Association, 2020). Nurses are integral members of this team, acting as primary care managers and playing essential roles in the success of diabetes interventions to improve health outcomes for patients with T2DM (Hunt, 2013).

However, the specific roles of nurses in health coaching to enhance self-care management among T2DM patients have yet to be fully elucidated. Therefore, this scoping review aims to identify and map existing literature on how nurses contribute to health-coaching interventions for individuals with T2DM.

Objective

This scoping review aims to map existing literature regarding the roles of nurses in health coaching interventions designed to enhance self-care management among individuals with T2DM.

Method

Inclusion Criteria

The selection of articles was based on the PCC framework (Participants, Concept, and Context). Participants included in the review were individuals involved in studies where nurses implemented health coaching interventions. The central concept was the roles of nurses in delivering health coaching to patients with T2DM. The context was restricted to hospital settings in which the health coaching was provided by nurses. Only primary, peer-reviewed

research studies—both qualitative and quantitative—were included. Review articles were excluded, although their reference lists were screened for additional relevant sources.

Search Strategy

A comprehensive literature search was conducted across multiple electronic databases, including ScienceDirect, PubMed, Wiley Online Library, and ProQuest. The keywords used were “nurses’ role,” “health coaching,” “self-care management,” “type 2 diabetes mellitus,” and “chronic disease.” The search was limited to full-text articles published in English between 2009 and 2019. Additional sources were identified through grey literature searches, reference list screening, and the Google Scholar search engine.

Selection and Data Extraction

A total of 912 titles and abstracts were initially retrieved. After the removal of duplicates, 125 articles remained. Titles and abstracts were then screened for relevance, leaving 34 articles for full-text review. Of these, 21 met the inclusion criteria and had accessible full texts. After further eligibility screening, 13 articles were included in the final synthesis. Two reviewers independently screened and selected studies, and any disagreements were resolved through discussion or with a third reviewer. Inductive thematic analysis was applied across the included studies to identify recurring themes regarding nurses’ roles in health coaching interventions.

Result

From the thirteen studies reviewed, four were conducted in America, one in England, one in the Netherlands, one in the United States, one in Germany, three in Finland, two in Australia, and one in Thailand. The majority of the studies were conducted by nurses, while others were carried out by a respiratory therapist and a health advisor. The study designs varied, including five randomized controlled trials, three quasi-experimental studies, and two qualitative studies. Based on the analysis of these studies, four primary roles of nurses in health coaching were identified, as illustrated in Figure 1.

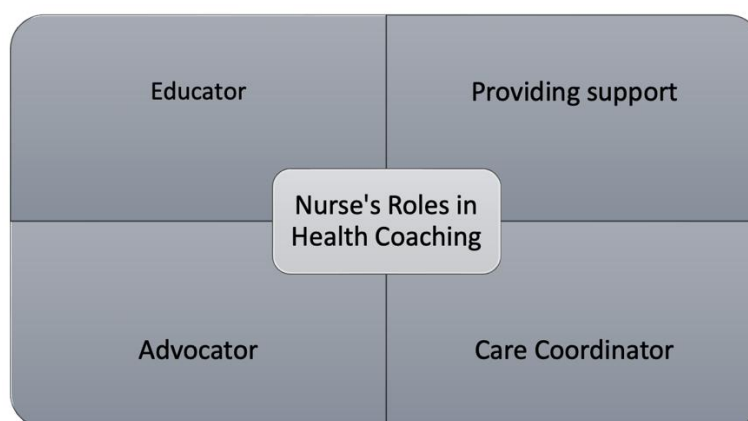


Figure 1. Nurse’s Roles in Health Coaching

The four main roles also emerged as key themes across the reviewed articles. These roles include providing health education, offering support, delivering advocacy, and coordinating care, as summarized in Table 1.

Table 1. Main themes from selected studies

Nurse's Roles	Author	Important Findings
Providing Health Education	Navicharern et al.,2009; Blackberry et al., 2013; Steventon et al.,2013; Karhula et al., 2015; Harter et al., 2016; Oksman et al., 2017; Delaney et al., 2017.	Providing education about diabetes, diabetes self-care management through word of mouth or self-care management guide/booklet during initial meetings with T2DM patients.
Providing support	Navicharern et al.,2009; Patja et al.,2012; Blackberry et al., 2013; Steventon et al.,2013; Liddy et al.,2014; Karhula et al., 2015; Harter et al., 2016; Browning et al., 2016; van Vugt et al., 2016; Oksman et al., 2017; Delaney et al., 2017; Dye et al, 2018; Howard & Hagen, 2019.	Provide support to T2DM patients to find the motivation to change so that they are more confident in improving self-care management and regularly visit doctors using motivational interviews.
Providing advocacy	Blackberry et al., 2013; Steventon et al., 2013; Liddy et al.,2014; Harter et al., 2016; van Vugt et al., 2016; Dye et al, 2018.	Facilitating T2DM patients to visit doctors and other healthcare teams and coaches in the community, and ensuring T2DM patients get good clinical services as needed by referring to the guidelines for health coaching results.
Coordinating care	Blackberry et al., 2013; Steventon et al., 2013; Liddy et al.,2014; Harter et al., 2016; Browning et al., 2016; Dye et al, 2018.	Coordinating care of T2DM patients to other health services and coaches in the community at the time of introduction, preparation for the process, and the end of the implementation of health coaching.

Providing Health Education

The role of nurses as educators is the most frequently reported in health-coaching interventions aimed at improving self-care management among patients with type 2 diabetes mellitus (T2DM). While the specific educational goals differ across studies, the most consistently cited objective is to enhance patients' knowledge of diabetes and its management. In addition to diabetes-related information, nurses often provide guidance on stress management, self-care skills, lifestyle modification, appropriate medication use, problem-solving strategies, goal setting, and navigating access to healthcare services. Education also

includes information on diabetes-specific health targets and emphasizes the significance of health coaching in facilitating behavioral change (Navicharern et al., 2009; Blackberry et al., 2013; Steventon et al., 2013; Karhula et al., 2015; Härter et al., 2016; Oksman et al., 2017; Delaney et al., 2017).

Providing support

In addition to their role as educators, nurses also play a critical support role during health coaching to enhance self-care management among patients with type 2 diabetes mellitus (T2DM). The forms of support identified across studies are diverse, but a common emphasis is placed on enhancing patients' self-motivation for behavioral change (Navicharern et al., 2009; Blackberry et al., 2013; Steventon et al., 2013; Karhula et al., 2015; Härter et al., 2016; Oksman et al., 2017; Delaney et al., 2017). Patients with chronic illnesses often experience emotional distress and feelings of helplessness; therefore, the nurse's supportive presence can empower them to better manage their condition.

The health coaching process typically begins with an assessment of the patient's health status, followed by goal setting, exploration of feelings, development of action plans, and provision of feedback on self-care behaviors. Motivational interviewing is frequently employed as a technique to guide this process (Patja et al., 2012; Navicharern et al., 2009; Blackberry et al., 2013). Nurses also offer informational support, including practical advice, relevant health information, and referrals to resources that aid in improving patients' overall health outcomes (Dye et al., 2018). Emotional support is equally important, as it fosters patients' confidence and commitment to sustaining self-care behaviors throughout the coaching program (Navicharern et al., 2009).

Providing Advocacy

Another essential role of nurses in health coaching is that of an advocate. Through advocacy, nurses assist patients with type 2 diabetes mellitus (T2DM) in effectively communicating with physicians and other healthcare providers regarding their health status—before, during, and after participation in a health coaching program (Blackberry et al., 2013). This role ensures continuity and coordination of care throughout the intervention process.

Moreover, nurses advocate to ensure that T2DM patients receive appropriate clinical services in accordance with evidence-based guidelines. This includes supporting patients in accessing necessary health resources such as glucose monitoring strips, prescribed medications, and routine diagnostic checks (Dye et al., 2018). By fulfilling this role, nurses help bridge potential gaps in care, promote equitable access to services, and empower patients to become active participants in their health management.

Coordinating Care

The findings of this review identified three distinct models of nurse coordination in health coaching programs for individuals with type 2 diabetes mellitus (T2DM). In the first model, nurses are not directly involved as health coaches but serve as intermediaries between patients, community-based health coaches, and other healthcare professionals. In this role, under the supervision of intervention managers and are responsible for introducing T2DM patients to community coaches and facilitating communication between patients, coaches, and additional care providers (Dye et al., 2018).

In the second model, nurses act as both coaches and collaborators. They work alongside other healthcare team members to coordinate the care of T2DM patients by monitoring their progress, evaluating the effectiveness of coaching interventions, and ensuring continuity of care (Liddy et al., 2014; Browning et al., 2016).

The third model positions nurses as lead coaches who also coordinate with other nurse-coaches. In this role, they guide patients through the health system and facilitate timely referrals to appropriate healthcare services, particularly when urgent or emergency care is required (Blackberry et al., 2013; Steventon et al., 2013; Härter et al., 2016).

Discussion

This study was conducted to map existing literature and evidence related to the role of nurses in health coaching as a strategy to improve self-care management among individuals with type 2 diabetes mellitus (T2DM). A prior systematic review highlighted that nurses play a pivotal role in diabetes care interventions, particularly in promoting self-care management through education, support, and collaboration with other healthcare professionals (Hunt, 2013).

One of the most prominent roles of nurses is providing diabetes education and psychosocial support, often delivered through counseling sessions conducted in person or via telephone. Nurses also serve as advocates, working closely with interdisciplinary teams to help patients navigate the healthcare system and access the resources necessary for effective diabetes management (Hunt, 2013). Education may be delivered individually or in group settings, and commonly takes place at health facilities, in patients' homes, or via telehealth. Educational materials such as booklets or self-care manuals are often used to reinforce learning (Karhula et al., 2015; Oksman et al., 2017).

In diabetes care, nurses frequently employ patient-centered methods such as motivational interviewing to encourage problem-solving and facilitate behavior change, particularly in initiating and maintaining insulin therapy (Levich, 2011). Health coaching, by its nature, is a patient-centered approach in which individuals are empowered to define their own goals and engage in active learning processes alongside health coaches (Liddy et al., 2014). Within this framework, nurses often assume multiple roles concurrently. This review found that the combination of education and support is the most frequently reported and appears to be more effective in improving self-care management outcomes compared to singular interventions.

Health coaching is underpinned by behavioral theory, emphasizing the need for patients with T2DM to make lasting lifestyle and self-management changes to improve their health outcomes (Agency for Healthcare Research and Quality, 2016). These programs equip patients with the knowledge, tools, and confidence necessary to take an active role in their care, ultimately supporting better glycemic control and long-term disease management (Härter et al., 2016; Dye et al., 2018). These improvements are intrinsically linked to the comprehensive and multi-faceted roles of nurses in diabetes care (Levich, 2011).

Conclusion

Diabetes self-care management is vital for individuals living with T2DM. Complex diabetes self-care management requires knowledge, training motivation, and support that can be provided by nurses. This review explains the role of nurses in health development that can improve self-care management in T2DM patients ranging from preparation, supervision, the

process to the end of the health coaching intervention, namely the role of education, support, advocacy, and coordinating care with other healthcare teams.

Acknowledgement

The authors would like to acknowledge the contributions of all colleagues involved in the literature review process.

Authors' contribution

Each author contributed equally in all the parts of the research. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

Conflict of interest

The researchers stated that there is no conflict of interest related to the implementation and publication of the results of this research. The entire research process, from planning, data collection, analysis, to report preparation, was carried out independently without any influence or pressure from any third party. A commitment to research ethics is upheld throughout the research process, ensuring transparency, accuracy and honesty in reporting results. Respondents' participation was voluntary with informed consent, and their confidentiality and privacy were maintained in accordance with applicable research ethics standards. With this statement, researchers hope that the research results can be trusted and used as a valid reference for the development of science and health practices related to ethnomedicine and reproductive health.

Ethical consideration

Ethical approval was not required for this scoping review as it did not involve human participants or personal data.

Funding

This research received no external funding.

References

1. Agency For Healthcare Research And Quality. (2016). *Behavioral Programs To Help Manage Type 2 Diabetes: A Review Of The Research For Adults*. https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/diabetes-behavior-programs_consumer.pdf
2. Almondes, N., Downie, D., Cinar, A. B., Richards, D., & Freeman, R. (2017). Is Health Coaching Effective In Changing The Health Status And Behaviour Of Prisoners?—A Systematic Review Protocol. *Systematic Reviews*, 6(1), 127. <https://doi.org/10.1186/s13643-017-0524-5>
3. American Diabetes Association. (2020). Standards Of Medical Care In Diabetes—2020 Abridged For Primary Care Providers. *Clinical Diabetes*, 38(1), 10–38. <https://doi.org/10.2337/cd20-as01>
4. Blackberry, I. D., Furler, J. S., Best, J. D., Chondros, P., Vale, M., Walker, C., Et Al. (2013). Effectiveness Of General Practice Based, Practice Nurse-Led Telephone Coaching On Glycaemic Control Of Type 2 Diabetes: The Patient Engagement And Coaching For Health

- (PEACH) Pragmatic Cluster Randomised Controlled Trial. *BMJ*, 347, F5272. <https://doi.org/10.1136/Bmj.F5272>
5. Browning, C., Chapman, A., Yang, H., Liu, S., Zhang, T., Enticott, J. C., Et Al. (2016). Management Of Type 2 Diabetes In China: The Happy Life Club, A Pragmatic Cluster Randomised Controlled Trial Using Health Coaches. *BMJ Open*, 6(3), E009319. <https://doi.org/10.1136/Bmjopen-2015-009319>
 6. Delaney, G., Newlyn, N., Pamplona, E., Hocking, S. L., Glastras, S. J., Mcgrath, R. T., Et Al. (2017). Identification Of Patients With Diabetes Who Benefit Most From A Health Coaching Program In Chronic Disease Management, Sydney, Australia, 2013. *Preventing Chronic Disease*, 14, E21. <https://doi.org/10.5888/Pcd14.160504>
 7. Dye, C., Willoughby, D., Aybar-Damali, B., Grady, C., Oran, R., & Knudson, A. (2018). Improving Chronic Disease Self-Management By Older Home Health Patients Through Community Health Coaching. *International Journal Of Environmental Research And Public Health*, 15(4), 660. <https://doi.org/10.3390/Ijerph15040660>
 8. Härter, M., Dirmaier, J., Dwinger, S., Kriston, L., Herbarth, L., Siegmund-Schultze, E., Et Al. (2016). Effectiveness Of Telephone-Based Health Coaching For Patients With Chronic Conditions: A Randomised Controlled Trial. *Plos One*, 11(9), E0161269. <https://doi.org/10.1371/Journal.Pone.0161269>
 9. Howard, L. M., & Hagen, B. F. (2012). Experiences Of Persons With Type II Diabetes Receiving Health Coaching: An Exploratory Qualitative Study. *Education For Health*, 25(1), 66. <https://doi.org/10.4103/1357-6283.99210>
 10. Hood, K. K., Hilliard, M., Piatt, G., & levers-Landis, C. E. (2015). Effective Strategies For Encouraging Behavior Change In People With Diabetes. *Diabetes Management*, 5(6), 499–510.
 11. Hunt, C. W. (2013). Self-Care Management Strategies Among Individuals Living With Type 2 Diabetes Mellitus: Nursing Interventions. *Nursing: Research And Reviews*, 3, 99–105. <https://doi.org/10.2147/Nrr.S49406>
 12. International Diabetes Federation. (2017). *New IDF Clinical Practice Recommendations For Managing Type 2 Diabetes In Primary Care*. <https://idf.org/54-Our-Activities/232-Managing-Type-2-Diabetes-In-Primary-Care.html>
 13. International Diabetes Federation. (2020). *Managing Type 2 Diabetes In Primary Care*. <https://idf.org/54-Our-Activities/232-Managing-Type-2-Diabetes-In-Primary-Care.html>
 14. Karhula, T., Vuorinen, A.-L., Rääpysjärvi, K., Pakanen, M., Itkonen, P., Tepponen, M., Et Al. (2015). Telemonitoring And Mobile Phone-Based Health Coaching Among Finnish Diabetic And Heart Disease Patients: Randomized Controlled Trial. *Journal Of Medical Internet Research*, 17(6), E153. <https://doi.org/10.2196/Jmir.4059>
 15. Levich, B. R. (2011). Diabetes Management: Optimizing Roles For Nurses In Insulin Initiation. *Journal Of Multidisciplinary Healthcare*, 4, 15–24. <https://doi.org/10.2147/JMDH.S16451>
 16. Liddy, C., Johnston, S., Nash, K., Ward, N., & Irving, H. (2014). Health Coaching In Primary Care: A Feasibility Model For Diabetes Care. *BMC Family Practice*, 15, 60. <https://doi.org/10.1186/1471-2296-15-60>
 17. Navicharern, R., Aunguroch, Y., & Thanasilp, S. (2009). Effects Of Multifaceted Nurse-Coaching Intervention On Diabetic Complications And Satisfaction Of Persons With Type 2 Diabetes. *Journal Of The Medical Association Of Thailand*, 92(8), 1102–1112.

18. Oksman, E., Linna, M., Hörhammer, I., Lammintakanen, J., & Talja, M. (2017). Cost-Effectiveness Analysis For A Tele-Based Health Coaching Program For Chronic Disease In Primary Care. *BMC Health Services Research*, 17(1), 138. <https://doi.org/10.1186/s12913-017-2088-4>
19. Patja, K., Absetz, P., Auvinen, A., Tokola, K., Kytö, J., Oksman, E., Et Al. (2012). Health Coaching By Telephony To Support Self-Care In Chronic Diseases: Clinical Outcomes From The TERVA Randomized Controlled Trial. *BMC Health Services Research*, 12, 147. <https://doi.org/10.1186/1472-6963-12-147>
20. Peters, M. D. J., Godfrey, C. M., Khalil, H., Mcinerney, P., Parker, D., & Soares, C. B. (2015). Guidance For Conducting Systematic Scoping Reviews. *International Journal Of Evidence-Based Healthcare*, 13(3), 141–146. <https://doi.org/10.1097/Xeb.0000000000000050>
21. Steventon, A., Tunkel, S., Blunt, I., & Bardsley, M. (2013). Effect Of Telephone Health Coaching (Birmingham Ownhealth) On Hospital Use And Associated Costs: Cohort Study With Matched Controls. *BMJ*, 347, F4585. <https://doi.org/10.1136/bmj.F4585>
22. Van Vugt, M., De Wit, M., Sieverink, F., Roelofsen, Y., Hendriks, S. H., & Bilo, H. J. G., Et Al. (2016). Uptake And Effects Of The E-Vita Personal Health Record With Self-Management Support And Coaching, For Type 2 Diabetes Patients Treated In Primary Care. *Journal Of Diabetes Research*, 2016, 5027356. <https://doi.org/10.1155/2016/5027356>