The Effectiveness of Training and Knowledge Enrichment for Home Care Nurses in Improving the Quality of Care

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INTRODUCTION AND LITERATURE REVIEW
Research topic Background

More than a quarter of the global population will be 65 or older by 2050, according to the most recent projections. By 2035, it is expected that there will be 14 million new cases of cancer worldwide; this figure accounts for about 60% of the estimated global cancer incidence (Hutchinson et al., 2019). With a focus on the time between diagnosis and death, quality of care offers a potential remedy for enhancing the quality of life of patients with chronic diseases and their loved ones. Of the estimated 40 million people worldwide, who could benefit from palliative care, only 5.6 million actually receive it. The rest of these people receive only standard treatment (Ayed et al., 2015). In addition, 67 percent of nations have not integrated palliative care programs into their national health service structures and policies. Worldwide, just a handful of centers in different countries are actively offering palliative care to their patients. Quality of care is offered in both institutional and community settings. One of the obstacles to providing qulaitu of care worldwide is the inadequate preparation of experts and knowledge in nurses in this field (Harrison, 2018).

Home healthcare refers to providing necessary health services from the patient's home (Levi et al., 2019). Home healthcare has many advantages, such as helping prevent hospital-acquired infections, being cheaper than in-hospital care, and making patients and families more comfortable (Treister-Goltzman & Peleg, 2023). In Israel, home healthcare has been linked to better healthcare outcomes, such as significant improvements in symptom management, satisfaction with care, and a significant decline in caregiver burden in older patients with dementia (Sternberg et al., 2019).

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However, home healthcare workers, including nurses, are professionally isolated and may experience inevitable adversities, such as a lack of access to continuous professional development programs, which may subsequently deteriorate the quality of care they provide to patients (Green & Ayalon, 2018). Thus, the retention of home healthcare workers in Israel remains a significant challenge, calling for addressing their professional isolation by giving them more exposure to continuous training and professional development (Shinan-Altman et al., 2020). Educational interventions for home care nurses have been demonstrated as highly effective in improving various workforce outcomes, such as the perceived burden of care (Gallart Fernández-Puebla et al., 2022). The proposed study focuses on home healthcare in Israel by providing need-based training interventions for home healthcare nurses working under Kupat Holim Meuhedet. The proposed research will mainly evaluate whether such an educational intervention will impact patient care quality.

Problem Statement and study rationale

Global ageing, increase in chronic morbidity, expensive healthcare services, and hospital workload have encouraged many healthcare systems worldwide, including Israel, to adopt innovative solutions, including home healthcare (Levi et al., 2019). Currently, approximately 12% of the Israeli population comprises people older than 65 years, and this is likely to double in the future owing to the trend of constant upward increase in the proportion of older people in the past, such as from 4% in 1948 to 12% in 2020 (United Nations Economic Commission for Europe, 2020). As a result, the Israeli government has put in place elaborate plans to tackle the public health burden associated with the ageing population, including the introduction of home healthcare systems. In Israel, home healthcare is in its infancy. Due to the high rates of acute in-hospital infections, it has gained considerable public interest and political support, likely to foster further development (Levi et al., 2019). As a result, research is scarce on the quality of home healthcare services in Israel and the interventions that can be used to improve it. The proposed study will utilise a structured approach to

identify the training and knowledge needs of home healthcare nurses working under Kupat Holim Meuhedet, develop training and knowledge enrichment for home care nurses, and then investigate whether implementing such an intervention can improve the quality of home healthcare services. It will be the first study in Israel to examine the effectiveness of a training and knowledge enrichment program in improving the quality of home healthcare services.

The gap of the study

The proposed study will benefit healthcare policymakers in Israel by identifying evidence-based strategies for improving the quality of home healthcare services. The findings will also help home healthcare nurses by empowering them with the knowledge they need to improve the quality of care they offer to patients.

LITERATURE REVIEW
Overview of Home Healthcare

Home healthcare is becoming increasingly critical in addressing the growing public health burden from chronic morbidity and the ageing population in developed countries like Israel (United Nations Economic Commission for Europe, 2020). Home healthcare gained increased importance during the Covid-19 pandemic because it provided a viable alternative to quality care when hospital systems were overwhelmed with Covid-19 admissions (Jones & Bowles, 2020). Home healthcare services still face many challenges in countries like the United States. For example, home healthcare nurses and other workers reported a heightened risk of contracting and spreading the Covid-19 pandemic since they had to make in-person visitations to patients' homes since the healthcare systems were not reimbursing telehealth solutions adequately (Jones & Bowles, 2020; Sterling et al., 2020). Other challenges facing nurses in home healthcare service delivery include difficult instances due to job stress factors and burnout, bureaucracy, and professional difficulties, such as working with unskilled and uneducated informal caregivers, professional isolation, and role ambiguity as most government home care guidelines have not defined nurses' roles, leading to professional conflict with other healthcare professionals (Lotfi Fatemi et al., 2019). So far, no study has investigated viable solutions to these challenges, especially in the Israeli context.

There is a lot of literature on the topic of healthcare quality training for professionals. In fact, almost 5,000 publications were found to be related to this subject. But most of them just describe training methods and content without analyzing their effectiveness or determining what works best (Shimizu et al., 2016). Training students and health professionals in quality improvement may increase their knowledge, abilities, and attitudes, according to some research. In some cases, care processes may also be enhanced. However, it is still unclear what effect this will have on health

outcomes for patients, resource utilization, and the overall quality of care. Most assessments of training look just at how trainees feel their knowledge has improved, rather than at the actual long-term benefits for practitioners and clients. Evaluations of programs that include hands-on training and real-world application are more likely to uncover improvements in care processes and patient outcomes (Russell et al., 2018).

The Impact of Educational Interventions on the Quality of Home Care

As mentioned above, most home care workers are unskilled and uneducated, threatening service users' quality of care and well-being (Lotfi Fatemi et al., 2019). Therefore, nurses working in this healthcare context must adapt to such working conditions while maintaining the quality of patient care. Educational interventions for nurses intended to promote quality of care in various healthcare contexts are popular and commonly implemented as quality improvement initiatives (Amiri et al., 2018; Padilha et al., 2019; Rouleau et al., 2019). Such educational interventions have effectively enhanced knowledge and skills and promote positive patient outcomes, such as patient safety (Amiri et al., 2018). In the context of home healthcare, no studies have investigated the impact of educational interventions on the quality of care. So far, only one study has explored the effects of an educational intervention for home healthcare nurses (Gallart Fernández-Puebla et al., 2022). The primary outcome measured in the study was the perceived burden of care using a pre-and post-intervention design. Therefore, the study did not focus on the quality of care as a patient-centred outcome. Thus, the proposed research will be the first of its own in developing an educational intervention for home healthcare nurses in Israel and then measuring the impact of such an intervention on the quality of care. The theoretical framework that guides the development and implementation of the intervention is discussed below.

A study conducted by Dehghannezhad et al. (2021), who used using data from a descriptive cross-sectional research conducted in 2018-2019 among a sample of 168 home care nurses and nursing aides in Iran's East Azerbaijan Province. The questionnaire was developed by Shimizu et al. in 2016 to assess nurses' perspective and familiarity with home care. Descriptive and inferential statistics (the T-test and the analysis of variance) were used to examine the data. About 95 (56.60%) and 113 (67.90%) of those surveyed were found to hold unfavorable views and lack adequate understanding, respectively. Most of the other participants were agnostic or knowledgeable about home palliative care. When compared to the scores on other dimensions, the Mean (SD) attitude score on terminal home care was estimated 2.33, and the knowledge score on dying care was calculated 41.76%. home care nurses were found to have a negative attitude toward and limited knowledge of home palliative

care, respectively, highlighting the need to work towards improving the nurses' attitude toward and knowledge of dying care.

THEORETICAL FRAMEWORK

The theoretical framework that will be used in developing and implementing the training and knowledge enrichment program for home health nurses in Israel is the Social Cognitive Theory (SCT). Bandura developed SCT in the 1970s to explain the critical roles of vicarious, self-regulatory, and symbolic processes in learning and performing actions (Schunk, 2012). The theory describes how internal processes (such as self-regulation, social comparisons, self-efficacy, outcome expectations, values, and attributions) and external aspects (like culture and diversity) influence outcomes, such as choice, effort, persistence, and achievement (Schunk & DiBenedetto, 2020). In nursing, SCT has been applied in professional education and in guiding the design of interventions for health promotion, prevention, and treatment (Manjarres-Posada et al., 2020). In the proposed study, SCT will explain how training and knowledge enrichment can influence home healthcare nurses' knowledge, skills, and behaviours and how the social and cultural context of the home care environment in Israel can affect their performance. More importantly, the theory helps design and implement the training and knowledge enrichment interventions. For example, the interventions could incorporate observational learning, feedback (providing information on areas of strength and areas requiring further improvement), and self-reflection. This claim is supported by the fact that SCT posits that learning takes place when there is a reciprocal interaction between personal factors (e.g., self-efficacy), behavioural factors (e.g., skills), and environmental factors (e.g., social factors and cultural influences). As such, individuals learn by observing others' behaviour, receiving feedback on their behaviour, and self-reflection (Wong & Monaghan, 2020). The methodology of the proposed study is discussed below.

RESEARCH OBJECTIVES AND HYPOTHESIS
Aim and Objectives

The proposed study aims to get the correlation between the effectiveness of a training and the knowledge enrichment program and evaluate the efficiency in raising and enhancing knowledge and attitude for home healthcare nurses in Israel by several questions set in the interviews. It will address the following objectives:

i. To assess the training and knowledge enrichment needs of nurses working in home healthcare in Israel.

ii. To develop training and knowledge enrichment training interventions for home healthcare nurses in Israel.

iii. To explore nurses' attitudes and perceptions towards the training and knowledge enrichment program.

iv. To evaluate the effectiveness of a training and knowledge enrichment program for Israeli home healthcare nurses on patient care quality.

Research Hypothesis

Based on the theoretical framework above, it can be anticipated that the training and knowledge enrichment program for home healthcare nurses in Israel will significantly improve patient quality of care.

Ethical Considerations

The study will involve the use of human participants, hence the need to strictly adhere to ethical considerations in research studies using human participants. First, ethical approval will be sought from an institutional review board (IRB). Second, participants will be given with an informed consent supplied electronically. It will consist of an information sheet outlining the purpose of the study and how it will be conducted and a place to sign in consenting to participate. Third, the participants will be assured of their confidentiality and privacy in the information sheet. Finally, participants will also be informed about their right to withdraw from the study, including even when data has already been collected from them, but the research report has not been finalised and submitted for grading. The study timeline and the plan for this study design is shown in Table 1 below.

Expected outcomes

This study will be used to learn about nurses' learning experiences in home care, and scales will be used to measure how these experiences affect the quality of care given to patients. This study will be enough to explore and describe an unknown phenomenon like nurses' learning experiences in home care, which only has a small number of informants. The learning experiences of the nurses will be analyzed to figure out which factors made home care easier or harder in a multicultural setting. The results will show that home care requires nurses to have a lot of skills and also gives them a lot of chances to learn more. The most important ways to learn were through the challenges of working with a wide range of patients and families every day, as well as through social interactions and sharing information with colleagues. More information will improve the level of care for patients in the areas that were studied.

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Appendices
Appendix A

1. Have you experienced a decline in your ability to perform Activities of Daily Living (such as bathing, dressing, eating, etc.)?
   - No decline: 0
   - Some decline: 1
   - Significant decline: 2
   - Unable to perform activity: 3

2. Have you experienced any cognitive decline or difficulties with memory, thinking, or decision-making?
   - No decline: 0
   - Mild decline: 1
   - Significant decline: 2

3. Have you experienced worsening depression or feelings of sadness and hopelessness?
   - No: 0
   - Yes: 1

4. Have you experienced an increase in pain levels?
   - No: 0
   - Yes: 1

5. Have you experienced any falls in the past year?
   - No: 0
   - Yes: 1

6. Have you developed any pressure ulcers or bed sores?
   - No: 0
   - Yes: 1

7. Have you experienced urinary incontinence or loss of bladder control?
   - No: 0
   - Yes: 1

8. Have you experienced bowel incontinence or loss of control over your bowels?
   - No: 0
   - Yes: 1

9. Have you been hospitalized in the past year?
   - No: 0
   - Yes: 1

10. Have you visited the emergency department in the past year?
    - No: 0
    - Yes: 1

11. How would you rate your overall quality of life?
    - Excellent: 0
    - Good: 1
    - Fair: 2
    - Poor: 3

SUMMARY OF THE PROPOSAL
Define the topic in general terms.
The topic focuses on the effectiveness of using an education program intended to train and enrich nurses' knowledge on patient-centered outcomes, particularly quality of care, in home healthcare settings.

Clearly state the research problem.
The research problem is that the rise of the ageing population in the world, and particularly in Israel, has increased the demand for home healthcare. However, few studies have explored how to enhance and optimize quality of care in such settings.

Define the objectives of the study.
The study will answer the following research question: "Compared to no training and knowledge enrichment, what is the effectiveness of training and knowledge enrichment

interventions for home healthcare nurses in Israel on patient quality of care?"

Describe the methods to be used.

Mixed methods will be used. The qualitative part will explore how nurses perceive and develop attitudes towards the educational program. The quantitative part will be a true experiment, whereby participants will be randomized to the experimental and control groups. The control group will receive no training and knowledge enrichment (comparator), whereas the experimental group will receive the educational program. The outcome variable is the quality of care, which will be measured using the Independence Quality Sub-scale of the Resident Assessment Instrument – Home Care (RAI-HC). Therefore, the independent variable will be the educational program, which has two levels (no training and knowledge enrichment versus training and knowledge enrichment). The dependent variable will be the primary outcome, quality of care.

Describe the expected outcomes.

It is anticipated that the educational program will provide training and knowledge enrichment that will subsequently improve the quality of care.

State the significance of the study.

The study will benefit healthcare policymakers in Israel by identifying evidence-based strategies for improving the quality of home healthcare services.