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Nurse-led service delivery models in primary care: A Scoping Review protocol

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Abstract

Background

Ensuring equitable access to health care is reliant on the strengthening of primary care services. Increasing the utilisation of task-sharing and telehealth models is one strategy to improve patient access and outcomes in primary care. This protocol details the methodology of a proposed scoping review of nurse and midwife involvement in task-sharing and telehealth models in primary care.

Aim

Undertaking this review will identify what models have been utilised in the primary care setting globally, the characteristics and health and economic outcomes of the models and whether these models are acceptable and feasible.

Design and setting

This protocol was developed in line with Joanna Briggs Institute Methodology for Scoping Reviews and reported according to the Preferred Reporting Items for Systematic Reviews and Meta-analysis protocols (PRISMA-P).

Methods and analysis

Five databases (Ovid MEDLINE, Embase, PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Cochrane Library) will be searched for relevant studies published in English. Articles will be screened for inclusion in Covidence by three authors, with data extracted and synthesised using a chart designed for this review. Evidence will be mapped in both tabular and narrative forms to show characteristics, outcomes and

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acceptability of the models of care. Ethical approval is not required as data utilised is publicly available.

Conclusions

Understanding how nurse and midwife-led models of care may operate is crucial to strengthening service provision in primary care. Evidence on nurse and midwife led primary care models will be collated and synthesised to inform future models

Key words

Nursing, midwifery, delivery of health care, telemedicine, task-sharing, primary health care, scoping review, general practice

How this fits in

Task-sharing models of care among primary care teams can be utilised as a means of building capacity to enhance the primary care system. While systematic reviews have been conducted exploring specific aspects of nurse-led task-sharing in primary care, a broader and comprehensive synthesis that captures both the characteristics of models of care and outcomes is required to understand the full breadth of the role of nurses and midwives in task-sharing globally and adapt these models to new clinical areas.

Introduction

Strengthening primary health care services is crucial for ensuring equitable access to essential healthcare. In 2018, the Declaration of Astana called for action to strengthen primary care as a means of achieving universal health coverage through promoting multisectoral action,

empowering local communities and enhancing capacity and infrastructure to build sustainable primary care systems (1). Telehealth and task-sharing among primary care teams, especially pertaining to general practitioners and practice nurses, can be utilised as a means of building capacity to enhance the primary care system.

Improving strategies to deliver care in primary care settings is critical due to an ageing population, workforce shortages, increasing burden of complex chronic diseases, and inequitable health outcomes and access (2). Using task-sharing models, in which nurses take on greater responsibility and complete physician tasks and adopting nurse-led telehealth models of care in general practice are opportunities to improve service provision and health outcomes. Data from a literature review on human resources optimisation in health care suggests that 25-70% of physician tasks could be completed by non-physician health workers in advanced roles, particularly in primary care (3).

Primary health care nurses are suitably placed to collaborate in task-sharing and telehealth models of care and support patients, while reducing the workload for physicians (4). The expansion of the role of nurses has arisen from a number of factors including shortage of family doctors, health system changes and development of new models of care (5), with Netherlands, Spain, United Kingdom, United States and Switzerland all expanding nurse practice. Australia, Belgium, Hong Kong, Canada, Finland, France, Ireland, Poland, Japan, the Czech Republic and New Zealand have also employed nurses in advanced roles (5, 6).

The benefits of task-sharing to both patients and staff are numerous, with efficient task-sharing shown to improve patient care (7) and satisfaction (8), while increasing provider job

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satisfaction (9). One qualitative study demonstrated that teamwork and high rapport among primary care staff were important contributing factors for patient-centred care (10). Task-sharing not only directly addresses strategic outcomes in the Declaration of Astana, but also directly benefits staff and patient wellbeing in the primary care setting.

Telehealth in primary care, in which appointments are conducted via videoconference or telephone, provides the opportunity to increase accessibility, decrease transportation barriers and empower patients, especially in rural and regional areas (11). A number of studies on telehealth services in primary care have found that telehealth is acceptable to patients, and in some cases preferred due to convenience, efficiency, privacy and comfort (12, 13). There has been recent increasing evidence that telehealth may exclude certain population demographics (14, 15), and that patient preference for mode of appointment is important. However, there is still an opportunity to increase access and as evidenced during the SARS COVID-19 pandemic an increasing necessity (16), especially in cases where it is the only option for a patient. As evidenced in a systematic review of reviews on the impacts and costs of telehealth services, nurse involvement is common, especially in delivering follow-up appointments (17) and nurse involvement has shown benefits to improving clinical indicators and reducing need for in clinic services (17).

Nurses and midwives are known to empower patients and target interventions that meet the wider social determinants of health through understanding the needs of local populations (18). Due to training and the large socio-cultural diversity of the nurse and midwifery workforce, nurse and midwife involvement in task-sharing models may aid in delivering

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culturally appropriate and relevant healthcare as well as reducing health inequities in primary care (19, 20).

A cross-country comparative study on task-shifting in primary care was undertaken in 2016 (21). However, the research mostly focused on policy, finance and educational reforms, and the extent to which task-sharing occurs (21). There was a lack in focus on the characteristics of models of care, and the role of nurse-midwives within these models, critical to informing their adaptation to other settings. One Cochrane systematic review explores the impact of nurses working as substitutes for primary care doctors on patient outcomes, processes of care and utilisation (22). Despite looking at nurse substitution, a scoping review with broader inclusion criteria would allow for a wider scope of evidence. A further systematic review has been undertaken on the impact of task-sharing on the course of disease (23). However, though the role of nurses are discussed regarding disease outcomes (23), there is no discussion on specific models of care. Therefore, a scoping review is required to identify and explain different task-sharing models of care.

The aim of this scoping review is to synthesise and map current evidence on nurse and midwife involvement in task-sharing and telehealth service delivery models in primary care. This evidence will inform the feasibility and design of nurse-led models of care for provision of early medical abortion and long-acting reversible contraception in order to increase access to these services in the primary care setting,

Methods and analysis

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The protocol has been reported in line with the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P)(24). The review will be conducted in accordance with Joanna Briggs Institute (JBI) Methodology for Scoping Reviews (25) and reported against the PRISMA Extension for Scoping Reviews (PRISMA-ScR)(26). The JBI promotes and supports the translation of evidence into practice through the identification of feasible appropriate and effective healthcare practices and interventions to improve global health outcomes (25). The JBI Reviewer's Manual guides the planning, undertaking and writing of scoping reviews (25), and was chosen as the methodological framework as the proposed review seeks to inform evidence-based practice and nurse-led models of care in general practice. As per the JBI guidelines, the protocol will outline the research questions, inclusion criteria, search strategy, study selection, data extraction, analysis of the evidence and dissemination of results.

Objectives

The objective of the scoping review is to ascertain what nurse led models of care involving task-sharing and telehealth exist in primary care.

This research is being conducted within the National Health and Medical Research Council (NHMRC) Centre of Research Excellence in SRH for Women in Primary Care (27). The proposal for SPHERE was developed by a multidisciplinary team of key experts and clinicians in SRH and primary care. The proposed scoping review aligns with SPHERE goals of addressing access and inequity issues in the provision of early medical abortion (EMA) services in Australia through primary care.

The Population, Concept, Context (PCC) strategy has been utilised to develop research questions (25). The models of care we seek to assess include the involvement of nurses and/or midwives (population), in task-sharing and telehealth models of care (concept) in the primary care setting globally (context).

The review will map evidence according to the following research questions:

1. What nurse-led task-sharing and telehealth models have been utilised in the primary care setting?

2. What are the characteristics and the health and economic outcomes of the nurse led task-sharing and telehealth models of primary care identified?

Inclusion criteria

Articles eligible for inclusion are those published in English, as we do not have translation resources available. Articles that detail nurse-led models of care are eligible for the review. Articles comprising nurse-led care in which services are run by nurses, midwife or nurse practitioners will be included. This may include working autonomously, managing their own caseloads, physiological assessments and care planning, initiation and delivery of treatment, monitoring of conditions and medications and referring to specialists where appropriate.

Models of care are defined as the way health services are organised and delivered and may also be described as a "program" or "intervention". Models of care for any health condition will be eligible for inclusion, as we wish to seek an understanding of different models in primary care more broadly. Any nurse led model of care delivered in the primary care setting

will be eligible if it comprises a task-sharing or telehealth component. Task-sharing involves the safe distribution of clinical activities, tasks and responsibilities, that would otherwise be the domain of a medical physician, to a nurse or midwife. Telehealth is defined as a clinical consultation conducted by telephone or video conference. Task-sharing and telehealth models of care performed by a nurse practitioner, practice nurse, midwife or equivalent will be included. For this review, primary care is defined as community health care in which the provider is the first point of contact within the healthcare system, and principle for continued care, such as general practice. Only studies from primary care settings are eligible for inclusion. Studies will be excluded if conducted in settings outside primary care or do not include a nurse-led component in the delivery of models of care.

Outcomes of interest include reported characteristics, health and economic outcomes and any evidence for feasibility or acceptability of models. Outcomes of the review will be developed iteratively during the review process.

Literature from the following sources are eligible for inclusion:

1. Intervention studies including randomised controlled trials, cluster randomised trials and quasi-randomised trials and pragmatic trials

2. Observational studies

3. Qualitative, quantitative and mixed-methods studies that evaluate or describe different aspects of task-sharing or telehealth models of care.

4. Grey literature including government and non-government organisation reports or guidelines that detail task-sharing or telehealth models of care with nurse or midwife involvement.

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Search strategy

A preliminary search was conducted in August 2020 on Ovid MEDLINE (see Supplementary Table 1). The search strategy was developed in line with the PCC criteria and research questions. Key relevant articles were identified and checked for any synonymous key terms to add to the search strategy. A medical research librarian assisted in refining the strategy. The search includes a combination of Medical Subject Heading (MeSH) terms and key terms for concepts including model, delivery, health service, primary health, general practice, nurse, midwife, mid-level provider, task-shifting, task-sharing, telehealth and telemedicine. The search strategy was further refined iteratively as the authors became more familiar with the literature, and in collaboration with the SPHERE Abortion Working Group. The authors used the JBI three step search strategy to improve search sensitivity (25). The following databases will be searched for eligible studies: Ovid MEDLINE, Embase, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Cochrane Library

Study selection

Citations identified through the search will be uploaded to Covidence, where duplicates will be removed. Studies will undergo title and abstract screening, and the full text screening for remaining eligible articles. Three authors (JEM, NW , AKS) will independently evaluate articles for inclusion. Any conflicts will be resolved through consensus or discussion with a third reviewer. Reference lists of included articles will be scanned for additional relevant papers. A PRISMA-ScR flow chart figure will be provided to detail the study selection process (26).

Data extraction

A data charting table will be developed to record key information of the source including (but not limited to): author, aims, country of origin, population, methodology, intervention type (if relevant), outcomes and key findings relevant to the research question. The JBI template data extraction instrument (25) will be adapted specifically for this review. The pilot form will be trialled on two or three sources by two reviewers to ensure all relevant information is extracted, a method favoured by other authors of scoping review conduct (28, 29). If any additional information is required, the charting table will be updated.

Presentation of the results

The aim of charting scoping review data is to identify, illustrate and summarise evidence, including identifying gaps in research (30). Results will be presented in a number of ways to clearly and logically characterise the findings.

A narrative approach will be taken when summarising and presenting the results. Evidence will be mapped based on the key research questions, including the characteristics of the models of care, reported outcomes and impact and any evidence on acceptability of models. When reporting outcomes of papers, consideration will be given to the nature of primary care in included countries. Evidence mapping will also be utilised to display data. Evidence maps are a visual presentation of available evidence, and aid in identifying evidence gaps (31). Model of care characteristics, reported outcomes, impact and implications will be presented in tabular form.

A table detailing each phase of the scoping review will also be included, from defining a research question to study selection, data extraction and synthesising and disseminating findings.

Ethics and Dissemination

As the review involves secondary data analysis of publicly available sources, no ethical approval is required. Findings will be disseminated to relevant key stakeholders including researchers, healthcare providers, sexual and reproductive health organisations and policy makers. The review will also be disseminated in publications, conference presentations and via the SPHERE distribution network.

Discussion

Increasing access to primary care is a major public health priority, and thus understanding the characteristics of successful nurse and midwife-led models of care is crucial to strengthening service provision in this setting. Strengths of the review include the use of the Joanna Briggs Institute Methodology for Scoping Reviews and the broad search. The search strategy aims to identify articles in all countries to capture the role of nurses across different health systems and innovative care in both high and low to middle income countries. One limitation of taking a scoping review approach is that we will be documenting what has currently been undertaken in telehealth but not necessarily assessing appropriateness of telehealth delivery of these services. Another limitation of the

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study is that the broad search strategy may elicit a high number of eligible articles across

multiple settings which may make inferences regarding commonalities more difficult.

However, we believe that the broad search strategy will allow for a more thorough

exploration of nurse-led care in line with Scoping Review methodology. Evidence on nurse

and midwife led primary care models will be collated and synthesised to inform the

development of such models in new clinical content areas.

ADDITIONAL INFORMATION

Author contributions

JEM, AKS and DM designed this study. JM led the manuscript writing with input from AKS

and DM. JM and NW will conduct screening and data extraction. All authors reviewed and

approved the final manuscript

Ethical Approval

Not applicable

Conflict of interest statement

DM has received research funding, travel grants and honorarium from Bayer. The other

authors have no conflict of interest to declare.

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