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THE IMPLEMENTATION OF TELENURSING IN THE MEDIATE AND LATE POSTOPERATIVE PERIODS: A SCOPING REVIEW PROTOCOL

LA IMPLEMENTACIÓN DE LA TELEENFERMERÍA EN EL POSTOPERATORIO MEDIO Y TARDÍO: PROTOCOLO DE REVISIÓN DEL ALCANCE

A IMPLEMENTAÇÃO DA TELENFERMAGEM NO PERÍODO PÓS-OPERATÓRIO MEDIATO E TARDIO: PROTOCOLO DE REVISÃO DE ESCOPO

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ABSTRAT
Objective: To map the characteristics of the process of implementing tele-nursing in the mediate and late postoperative periods of all surgical specialties. Method: This is a scoping review protocol conducted using the JBI method. It was registered in the Open Science Framework. The review question was: what are the characteristics of the process of implementing tele-nursing in the immediate and late postoperative period? The following databases will be consulted: Medline, CINAHL, Scopus and Embase via Elsevier, Latin American and Caribbean Health Sciences Literature (LILACS) and Web of Science. The gray literature will be consulted through the Digital Library of Theses and Dissertations, WordCat and Google Scholar, as well as the websites of national and international institutions related to the subject. The selected studies will be exported to the Rayyan selection platform, removing duplicates. The titles and abstracts will be reviewed by two independent researchers, conflicts will be resolved through a consensus meeting or by consulting a third reviewer, after which the full text will be read. Data extraction will be carried out by two independent reviewers using a data extraction tool adapted from the model proposed by the JBI.
Keywords: Telenursing; Postoperative Period; Postoperative Care; Nursing.

RESUMEN
Objetivo: mapear las características del proceso de implementación de la teleenfermería en el postoperatorio medio y tardío de todas las especialidades quirúrgicas. Método: Este es un protocolo de revisión del alcance realizado utilizando el método JBI. Ha sido registrado en el Open Science Framework. La pregunta de revisión fue: ¿cuáles son las características del proceso de implementación de la teleenfermería en el postoperatorio medio y tardío? Se consultarán las siguientes bases de datos: Medline, CINAHL, Scopus y Embase vía Elsevier, Literatura Latinoamericana y del Caribe en Ciencias de la Salud (LILACS) y Web of Science. La literatura gris será consultada en la Biblioteca Digital de Tesis y Disertaciones, WordCat y Google Scholar, además de los sitios web de instituciones nacionales e internacionales relacionadas con el tema. Los estudios seleccionados serán exportados a la plataforma de selección de Rayyan, eliminando duplicados. Los títulos y resúmenes serán revisados por dos investigadores independientes, los conflictos se resolverán mediante una reunión de consenso o consultando a un tercer revisor, luego de lo cual se leerán en su totalidad. La extracción de datos la realizarán dos revisores independientes utilizando un instrumento de extracción de datos adaptado del modelo propuesto por JBI.
Palabras clave: Teleenfermería; Periodo Posoperatorio; Cuidados Posoperatorios; Enfermería.

RESUMO
Objetivo: mapear as características do processo de implementação da telenfermagem no pós-operatório mediato e tardio de todas as especialidades cirúrgicas. Método: Trata-se de protocolo de revisão de escopo conduzido pelo método JBI. Foi registrado no Open Science Framework. A questão da revisão foi: quais são as características do processo de implementação da telenfermagem no período pós-operatório mediato e tardio? Serão consultadas as bases de dados: Medline, CINAHL, Scopus e Embase via Elsevier, Literatura Latino-americana e do Caribe em Ciências da Saúde (LILACS) e Web of Science. E literatura cinzenta será consultada a Biblioteca Digital de Teses e Dissertações, WordCat e o Google Acadêmico, além dos sites de instituições nacionais e internacionais referente ao objeto. Os estudos selecionados serão exportados para a plataforma de seleção Rayyan, removido duplicatas. Os títulos e resumos serão revisados por dois pesquisadores independentes, os conflitos serão resolvidos por meio de reunião de consenso ou consultando um terceiro revisor, após ocorrerá a leitura na íntegra. A extração dos dados ocorrerá por dois revisores independentes utilizando um instrumento de extração de dados adaptado do modelo proposto pelo JBI.
Palavras-chave: Telenfermagem; Período Pós-Operatório; Cuidados Pós-Operatórios; Enfermagem.

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INTRODUCTION

Telenursing involves providing nursing care remotely using technologies such as telephones, computers, mobile applications, and video calls. It is used at various times during healthcare, especially when the patient is far from the healthcare unit, in difficult or restricted access locations[1-3]. It involves nurses with legal competence to perform remote activities focused on guidance, health education, screening, information collection, and have regulation of access to healthcare institutions[4].

The use of this technology in healthcare has existed for over 35 years, and has been implemented in countries such as the United States and Australia through landlines, and more recently through applications installed on mobile phones[5,6].

The use of this technology for education and healthcare services in Brazil was established in 2006. Then, the Ministry of Health promoted reformulating and expanding these practices in 2011 through Ordinance No. 2,546, with the creation of the National Telehealth Brazil Networks Program (*Programa Nacional Telessaúde Brasil Redes*). This program had the aim of using information and communication technologies to provide healthcare and education, even over geographical distances. Thus, teleconsultations began to be regulated for nursing professionals[7].

Considering the important contribution of telenursing in providing care and prevention of diseases during the pandemic in 2022, COFEN definitively established the practice of nursing in digital health and called this practice telenursing[3]. In this sense, several benefits could be observed in using telenursing. For example, reduced exposure to the SARS-COV-2 virus at that time for both patients and health professionals. By carrying out virtual consultations, patients could avoid traveling to hospitals and clinics, minimizing their chances of contracting or transmitting the disease. In addition, it reduces the overload on health services and enables health professionals to see more patients in less time[8].

Another positive aspect can be mentioned, namely expanded access to healthcare, especially for regions where distance is a critical factor, offering the opportunity to overcome geographical barriers[8]. However, the pandemic also revealed obstacles that need to be overcome in order to provide universal, equitable and equitable healthcare[6,9].

The lack of access to cell phones, the internet and mobile health applications, as well as the lack of technological skills, are obstacles which hinder access to healthcare for those who need it most[6]. Furthermore, there is also a refusal to receive care using this technology on the part of patients and professionals. This can be attributed to the limitations of remote consultation, which includes the impossibility of performing physical examinations, which can be seen as a deficiency for adequate diagnosis and treatment[10].

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Nevertheless, telenursing can be an effective alternative because it covers several health specializations and for vulnerable groups, such as older adults or people with disabilities, who face difficulties in mobility[8]. Telenursing has been increasingly used at different times in surgical specializations such as in pre- and post-operative care, and can be implemented by several health professionals working in the surgical area, with emphasis on nurses, anesthetists and surgeons[11].

Telenursing enables care continuity in the post-operative period from a distance by the nurse, in which they can provide guidance and clarify doubts, allowing the patient autonomy and a shorter stay in the hospital environment, as well as preventing readmissions due to possible complications, ultimately reducing treatment costs[12,13].

In this context, it is possible to observe that the international literature has consistent theoretical references on applying telenursing during the perioperative period, especially during the post-operative phase. However, studies in this area in Brazil are still incipient[14].

Therefore, it is believed that a literature review will provide better understanding on implementing telenursing in the postoperative period, and may offer significant contributions to manage this type of healthcare, serving as a theoretical support for new approaches to care and health promotion, and thereby strengthening this type of technology in surgical healthcare.

A preliminary search was conducted in the Open Science Framework (OSF), Figshare, the Joanna Briggs Institute, MEDLINE via PUBMED and COCHRANE LIBRARY databases in order to verify the existence of a protocol registry. It was found that there is no completed or ongoing study with the same objective as this study.

In view of the above, the objective of this study is: To map the telenursing implementation process characteristics in the mediate and late postoperative periods of all surgical specializations. In turn, the review question is: what are the telenursing implementation process characteristics in the mediate and late postoperative period?

METHODS

Study type

This is a scoping review protocol which will be conducted in accordance with the JBI methodology for scoping review and following PRISMA-ScR(15), registered in the Open Science Framework (OSF), with the DOI 10.17605/OSF.IO/QS32Y.

Eligibility criteria

The eligibility criteria were developed according to the acronym PCC – Population, Concept and Context[15]. Regarding the population, this review will consider studies that

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include surgical patients over 18 years of age, from all surgical specializations. Studies which address care, actions and guidance in the mediate and late postoperative periods through telenursing will be considered for the concept, while studies that address hospital and outpatient surgery will be considered regarding the context.

Types of sources

This scoping review will consider quantitative, qualitative, mixed methods studies, all types of reviews, opinion pieces and grey literature. This will enable greater sensitivity in the study, which is desirable for this scoping review[15].

Search strategy

A mapping of keywords based on the terms used in the PCC acronym was performed by their descriptors in the controlled vocabularies of the health area, which include: Health Sciences Descriptors (DeCS), Medical Subject Headings (MeSH), North Holland Publishing Company (ELSEVIER), and Cumulative Index to Nursing and Allied Health Literature (CINAHL). Two librarians with expertise in the health area developed a structured search strategy with the keywords, descriptors and their synonyms, and adapted it for each database.

There will be a three-stage search strategy. The first study stage took place on August 16, 2023, with a limited search being conducted to identify articles related to this topic in the Medical Literature Analysis and Retrieval System Online (MEDLINE) via Public Medicine (PubMed) and in the Cumulative Index to Nursing and Allied Health Literature (CINAHL) via EBSCo databases, obtaining 124 and 89 results, respectively (Table 1). A second search using the keywords, descriptors and synonyms will be performed in the following databases: MEDLINE (PubMed); CINAHL (EBSCO); Scopus and Embase via Elsevier; Latin American and Caribbean Literature in Health Sciences (LILACS) and Web of Science. As sources of gray literature, the Digital Library of Theses and Dissertations (BDTD), the WordCat database and Google Scholar, in addition to the websites of national and international institutions such as: Brazilian Association of Surgical Center, Anesthesia Recovery and Material and Sterilization Center Nurses (SOBECC), International Council of Nurses (ICN), American Nurses Association (ANA) and Association of PeriOperative Registered Nurses (AORN). Finally, the third stage will be done by consulting the references of the studies selected for this review in order to find additional studies.

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Table 1 - Search strategies and preliminary results. Rio de Janeiro, RJ, Brazil, 2023.

Database	Search strategies	N
MEDLINE	(Telenursing[mh] OR Telenursing[tiab] OR Telemonitoring[tiab] OR Telemedicine[mh] OR Telemedicine[tiab] OR Virtual Medicine[tiab] OR Virtual Health[tiab] OR Tele Referral*[tiab] OR Mobile Health[tiab] OR Telehealth[tiab] OR Tele Health[tiab] OR mHealth[tiab] OR m-health[tiab] OR eHealth[tiab] OR e-health[tiab] OR e-medicine[tiab] OR Tele Consultation[tiab] OR e-consultation[tiab] OR Remote Consultation[mh] OR Remote Consultation*[tiab] OR Remote Monitoring[tiab] OR Teleconsultation*[tiab]) AND (Postoperative Period[mh] OR Postoperative[ti] OR Postsurgical[ti]) AND (Health Plan Implementation[mh] OR Implement*[tiab] OR Implantation*[tiab] OR Effect*[tiab])	124
CINAHL	(Telenursing OR Telemonitoring OR Telemedicine OR "Virtual Medicine" OR "Virtual Health" OR "Tele Referral*" OR "Mobile Health" OR Telehealth OR mHealth OR m-health OR eHealth OR e-health OR e-medicine OR "Tele Consultation" OR e-consultation OR "Remote Consultation*" OR "Remote Monitoring" OR Teleconsultation*) AND ("Postoperative Period" OR Postoperative OR Postsurgical) AND ("Health Plan Implementation" OR Implement* OR Implantation* OR Effect*) NOT TI(Abstract* OR Proceed* OR Congress OR Conference)	89

Source: Elaborated by the authors, 2023

Study selection

After searching the databases, the selected studies will be exported to the Rayyan selection platform and duplicates will be removed. The titles and abstracts will be reviewed by two independent reviewers to assess compliance with the eligibility criteria. An initial stage will be a pilot test independently conducted by two reviewers with 25 titles and abstracts. The results will be evaluated and discussed regarding the need for adaptation until 75% agreement is reached between the reviewers[15].

All studies will have their titles and abstracts analyzed according to the criteria by two independent reviewers, and the included articles will be read in full. Disagreements between reviewers at each stage will be resolved through a consensus meeting or by consulting a third reviewer.

Data extraction

Data will be extracted from studies included in the scoping review by two reviewers using a data extraction instrument adapted from the model proposed by the JBI[15] (Table 2). The extracted data will include specific details about the studies consulted, as well as the PCC.

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Table 2 - Data extraction instrument. Rio de Janeiro, Brazil, 2024.

Data extraction instrument
Details of the scoping review
Title Implementation of telenursing in the early and late postoperative periods: A scoping review
Objective Map the telenursing implementation process characteristics in the mediate and late postoperative periods of all surgical specializations.
Inclusion criteria P- Patients over 18 years of age; C- Care, actions and guidance in the mediate and late postoperative periods through telenursing C- Hospital and outpatient surgery.
Research question What are the telenursing implementation process characteristics in the medium and late postoperative periods?
Extraction of details from selected studies 1- Title; authors; year of publication and place of study: 2- Type of study: 3- Research object: 4- Research question of the studies: 5- Objective of the studies: 6- Authors' results: 7- Variables related to the telenursing implementation process such as: Planning; Technology used; Training of professionals and patients; Implementation; Evaluation; Continuous improvement.

Source: Adapted from the Joanna Briggs Institute Manual[15].

EXPECTED RESULTS

This scoping review aims to map the telenursing implementation process characteristics in the mediate and late postoperative periods for all surgical specializations. Based on the selected studies, the aim is to organize the results into two thematic categories (1. implementation of telenursing in the mediate and late postoperative periods in hospitals; 2. implementation of telenursing in the mediate and late postoperative periods in outpatient clinics) with their respective subcategories (surgical specializations, surgical classification, devices, protocol, planning, training, and post-implementation evaluation).

A possible implication for practice and research is that this study can serve as another data source on telenursing implementation by identifying the telenursing implementation process characteristics, and thus contribute to strengthening nursing professionals' understanding of this innovative healthcare form,

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to qualifying nursing care, and to increasing patient safety in telenursing.

Furthermore, it is believed that this review will add evidence to clarify how patient safety can be influenced by telenursing usage in the surgical setting. It may foster proposals for managers to invest and encourage implementation and dissemination of this new possibility of care which overcomes barriers related to distance, contributing to achieve the Brazilian Universal Healthcare System's (*SUS*) doctrinal guidelines, universality, equity and comprehensiveness for patients undergoing surgical procedures in an outpatient or hospital setting.

It is expected that this systematized knowledge will have the potential to stimulate emergence of new research lines and contribute to advance the state of the art in the area, in addition to offering subsidies for developing innovative solutions and optimizing processes.

REFERENCES

1. American Nurses Association (ANA). Telehealth: issues for nursing. In: Nursing Trends & Issues, American Nurses Association on Policy Series. Washington; 2002

2 International Council of Nurses. Telenursing, Telehealth International: nursing and technology advance together. Geneva; 2000

3. Conselho Federal de Enfermagem. Resolução COFEN Nº 696/2022. Dispõe sobre a atuação da Enfermagem na Saúde Digital, normatizando a Telenfermagem [Internet]. 2022 [citado 2023 Ago 8]. Disponível em: http://www.cofen.gov.br/resolucao-cofen-no-696-2022_99117.html.

4. Kamei T, Kawada A, Nishimura N, Kakai H. A Fully Longitudinal Mixed Methods Case Study Design: An Example Based on the Illness Trajectory of a Person With Chronic Conditions in Home-Monitoring-Based Telenursing During the COVID-19 Pandemic. J Mix Methods Res [Internet]. 2021 [cited 2023 Out 7]; 15 (3): 413-36. Available from: https://doi.org/10.1177/15586898211019512

5. Li L, Lake R, Raban MZ, Byrne M, Robinson M, Westbrook J, Baysari MT. Medication-related calls received by a national telenursing triage and advice service in Australia: a retrospective cohort study. BMC Health Serv Res [Internet]. 2017 [cited 2023 Out 10];17(1). Available from: http://doi.org/10.1186/s12913-017-2135-1

6. Kossoudji A, Huang L, Carter M D, Craig K, Adcox A. Telehealth Nursing: Acknowledging the Past and Embracing the Way Forward. View Point [Internet]. 2023 [cited 2023 Out 12]; 45 (4). Available from: https://web-s-ebscohost.ez83.periodicos.capes.gov.br.

7. Ministério da Saúde (BR). Portaria n°2.546, de 27 de outubro de 2011. Redefine e amplia o Programa Telessaúde Brasil, que passa a ser denominado Programa Nacional Telessaúde Brasil Redes (Telessaúde Brasil Redes) [Internet] 2011 [citado 2023 Ago 8]. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt2546_27_10_2011.html.

8. Irarrázaval MJ, Inzunza M, Muñoz R, Quezada N, Brañes A, Gabrielli M, Soto P, Dib M, Urrejola G, Varas J, Valderrama S, Crovari F, Achurra P. Telemedicine for postoperative follow-up, virtual surgical clinics during COVID-19 pandemic. Surg Endosc [Internet]. 2020 [cited 2023 Out 12]. Available from: https://doi.org/10.1007/s00464-020-08130-1

9. Brasil. Lei n° 8.080 de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços

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correspondentes e dá outras providências. Brasília, DF: Diário Oficial da União; 20 set. 1990 [Internet] 1990 [citado 2023 Out 12] Disponível em: https://www.planalto.gov.br/ccivil_03/leis/l8080.htm

10. Paloski GD, Barlem JG, Brum AN, Barlem EL, Rocha LP, Castanheira JS. Contribuição do telessaúde para o enfrentamento da COVID-19. Esc Anna Nery [Internet]. 2020 [citado 2024 Fev 02]; 24(spe). Disponível: https://doi.org/10.1590/2177-9465-ean-2020-0287

11. Williams AM, Bhatti UF, Alam HB, Nikolian VC. The role of telemedicine in postoperative care. mHealth [Internet]. 2018 [cited 2024 Maio 6]; 4 (11). Available from: https://doi.org/10.21037/mhealth.2018.04.03

12. Cardozo AS, Santana R F, Rocha ICM, Cassiano K M, Mello TD, Melo UG. Acompanhamento por telefone como intervenção de enfermagem na recuperação cirúrgica de idosos prostatectomizados. Rev Enferm UFPE [Internet]. 2017 [citado 2024 Maio 6]; 11 (8). Available from: https://doi.org/10.5205/1981-8963-v11i8a110203p3005-3012-2017

13.Schulz R S, Santana RF, dos Santos CT, Faleiro TB, do Amaral Passarelles DM, Hercules AB, do Carmo TG. Telephonic nursing intervention for laparoscopic cholecystectomy and hernia repair: A randomized controlled study. BMC Nurs [Internet]. 2020 [cited 2024 Maio 1]; 19(1). Available from: https://doi.org/10.1186/s12912-020-00432-y

14. Delphino TM, Souza PA, Santana RF. Telemonitoring as intervention in the postoperative facectomy: systematic review of the literature. REME [Internet]. 2016 [cited 2024 Maio 1]; 20. Available from: https://doi.org/10.5935/1415-2762.20160007

15. Peters MDJ, Godfrey C, McInerney P, Munn Z, Tricco AC, Khalil, H. Scoping Reviews. Aromataris E, Lockwood C, Porritt K, Pilla B, Jordan Z, editors. JBI Manual for Evidence Synthesis. JBI; 2024 [cited 2024 Maio 1]. Available from: https://doi.org/10.46658/JBIMES-24-09

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APSSA and CSF contributed substantially to the conception and planning of the study, to obtaining the data as well as to the writing and critical review and final approval of the published version. LBR contributed to obtaining data, critical review and final approval of the published version. RAF and AABB critical review and final approval of the published version. DABS and RDC in obtaining data, critical review and final approval of the published version.

Declaration of conflict of interest

"Nothing to declare".

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