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REVIEW

The communication process in Telenursing: integrative review

O processo de comunicação na Telenfermagem: revisão integrativa

El proceso de comunicación en la Tele-Enfermería: revisión integrativa

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ABSTRACT

Objective: to identify scientific evidence about the communication process in Telenursing and analyze them. **Method:** integrative review performed in March 2014. The search strategy, structured with the descriptors "telenursing" and "communication", was implemented in the databases Medline, Bireme, Cinahl, Scopus, Web of Science, Scielo, and Cochrane. **Results:** ten studies were selected after inclusion and exclusion criteria. The main challenges were: the clinical condition of patients, the possibility for inadequate communication to cause misconduct, the absence of visual references in interactions without video, and difficulty understanding nonverbal communication. **Conclusion:** distance imposes communicative barriers in all elements: sender, recipient and message; and in both ways of transmission, verbal and nonverbal. The main difficulty is to understand nonverbal communication. To properly behave in this context, nurses must receive specific training to develop abilities and communication skills.
Descriptors: Telenursing; Telehealth; Communication; Remote Consultation; Nurse–Patient Relationships.

RESUMO

Objetivo: identificar as evidências científicas sobre o processo de comunicação na Telenfermagem e analisá-las. **Método:** revisão integrativa, realizada em março de 2014. A estratégia de busca, estruturada com os descritores "telenfermagem" e "comunicação", foi implementada nas bases de dados Medline, Bireme, Cinahl, Scopus, Web of Science, Scielo e Cochrane. **Resultados:** ao serem aplicados critérios de inclusão e exclusão, selecionaram-se 10 estudos. Os principais desafios ponderados foram: a condição clínica dos pacientes, a possibilidade de que comunicação inadequada gere erros de conduta, a ausência de REFERENCES visuais em interações sem recurso de vídeo, e dificuldade de compreensão do não verbal. **Conclusão:** a distância impõe barreiras comunicativas em todos os elementos: emissor, receptor e mensagem; e em ambas as maneiras de transmissão, verbal e não verbal. A principal dificuldade é compreender o não verbal. Para cuidar adequadamente neste contexto, o enfermeiro deve receber formação específica, para que desenvolva competências e habilidades comunicacionais.
Descritores: Telenfermagem; Telessaúde; Comunicação; Consulta Remota; Relações Enfermeiro–Paciente.

RESUMEN

Objetivo: identificar y analizar las evidencias científicas del proceso de comunicación en la tele-enfermería. **Método:** revisión integrativa, realizada en marzo de 2014. La estrategia de búsqueda, estructurada con los descriptores "tele-enfermería" y "comunicación", se implantó en las bases de datos Medline, Bireme, Cinahl, Scopus, Web of Science, Scielo y Cochrane. **Resultados:** al aplicarse criterios de inclusión y exclusión, se seleccionaron 10 estudios. Sobresalieron los siguientes desafíos: la condición clínica de los pacientes, la posibilidad de que la comunicación inadecuada genere errores de conducta, la ausencia de referencias visuales en las interacciones sin recurso de vídeo y la dificultad de comprensión de lo no verbal. **Conclusión:** la distancia impone barreras comunicativas en todos los elementos, emisor, receptor y mensaje, y en ambas formas de transmisión, la verbal y la no

verbal. El problema principal es entender lo no verbal. En este contexto, para realizar los cuidados adecuadamente, el enfermero debe recibir formación específica con el intuito de adquirir competencias y habilidades comunicacionales.
Descriptores: Tele-Enfermería; Tele-Salud; Comunicación; Consulta Remota; Relaciones Enfermero-Paciente.

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INTRODUCTION

Communication can be understood as a process by which the understanding and sharing of sent and received messages occur, and the content of these messages, as well as the way they are transmitted, influence people's present and future behavior. The elements of this process are: the sender or addresser; the recipient or receiver; and the message. We can briefly say that communication is "who says, for what purpose, how and in what channel or context, to whom, and with what effect" [1-2].

Messages can be transmitted verbally or nonverbally. Verbal communication refers to the use of words, expressed through spoken or written language, and nonverbal communication encompasses all manifestations not carried out through spoken words, denoting that human beings are always in communication, even though in silence. Permeating these forms, paraverbal or paralanguage are the way messages are spoken, i.e., the tone of the voice, rhythm, manner of expression. Thus, it is possible to identify in the interlocutor several feelings such as anger, contempt or doubt in the decoding of nonverbal signals. The context where communication interactions occur is essential to understand them[2].

Effective communication is essential in the daily life of nurses and health professionals in general, since it avoids noise and misunderstandings[2]. However, the incorporation of technological resources has been modifying the dynamics in nursing and, although this is not a new theme, since it is cited in the literature since 1994 with the descriptor "telenursing"[3], we lack studies that assess the impact of these resources in the communicative process.

Telenursing is the nurse-health professional, nurse-nurse or nurse-patient interactions, mediated by devices that overcome the barriers of distance and time. These technological devices that enable human interaction in spite of these barriers are called "Information and Communication Technologies (ICTs)." The most used ICTs are telephones (landlines and mobile phones), copy machines (fax), internet, video and audio conferencing, computerized information systems, and devices for transferring data in general[4]. These technologies allow nurses to access patient information from any remote location, to manage health care through electronic health record systems, and to assist from a distance.

This assistive mode is expanding in many western countries [5-6], mainly due to the concern involving the reduction of health care costs and epidemiological factors such as population aging, the increase of chronic diseases, and infectious diseases. In addition, Telenursing has expanded health care coverage to distant, rural, small or sparsely populated regions[4].

In Brazil, the Ministry of Health implemented, in 2007, the "Brazilian National Telehealth Network Program", with the aim of promoting Teleassistance and Teleducation to improve health care quality and the basic attention in the Brazilian Unified Health System (SUS)[7]. In 2011, the program defined four types of assistance for telehealth: 1) "Teleconsultation", or consultation conducted through ICTs among workers, professionals and managers of health care, with the aim to clarify questions about clinical procedures, health actions, among other purposes, and it may be of two types: synchronous, which is performed in real time; or asynchronous, which is performed via offline messages; 2) Telediagnostic, or "autonomous service that uses ICTs to perform diagnostic support services"; 3) Formative Second Opinion, which refers to a systematic response to questions raised from teleconsultations, based on literature review, on the best scientific evidence available; and 4) Teleducation, or classes, courses, and lectures taught through ICTs[7].

Due to the diversity of ICTs used in Telenursing, many researchers have been devoted to assessing the impact of these technologies in health services and also to describing the experience of nurses that prefer them instead of the communication process[8-10]. However, considering the growing incorporation of new technologies in health care, the understanding of the communication process in this context can subsidize evidence to improve the care provided to patients[11] in this assistance mode. Thus, the relevance of this integrative review is justified.

OBJECTIVES

To identify and analyze the scientific evidence on the communication process in Telenursing.

METHOD

Type of Study

It is an integrative literature review, held in March 2014 by three reviewers; it is structured into eight steps: 1) to identify the theme and formulate the guiding question; 2) to establish the studies' inclusion and exclusion criteria; 3) to set the databases of the research; 4) to define the resources of the bibliographic search; 5) to define information to be extracted from selected studies; 6) to evaluate the studies included; 7) to interpret the results; 8) to present the review[12].

Considering the various possibilities and peculiarities of telecommunication in health care, the PICO strategy was used[13] (P: Patient – nurses that work in telehealth and interlocutors; I: intervention – the communication process; Co: context-telenursing) to elaborate the guiding question. Using the tool available in PubMed (Search PubMed via PICO with Spelling Checker. Available from: http://askmedline.nlm.nih.

gov/ask/pico.php), we reached the following question: which are the elements of the communication process acknowledged in the literature?

Inclusion and exclusion criteria

Inclusion criteria comprised studies on Communication and Nursing published in their entirety, without language restriction and period of publication, and with methodological design that included qualitative data, since we sought to understand the phenomenon in depth. Exclusion criteria restricted studies from other health professionals except nurses, cost-effectiveness analyses, implementation processes or evaluation of ICTs and/or the nurses' experience with them, and quantitative methodology studies.

The search strategy, structured with the indexed descriptors (http://decs.bvs.br/.) "telenursing" and "communication" was implemented in the databases Medline, Bireme, Cinahl, Scopus, Web of Science, SciELO, and Cochrane, according to their respective research resources, as shown in Box 1.

The studies were identified with the letter "P" (P1 - Publication 1, P2 - Publication 2, etc.) and analyzed by three independent reviewers according to the country of publication, technology used, and communication elements.

Box 1 - Databases and research resources used to implement the search strategy, São Paulo, Brazil, 2014

Databases	Research resources
Medline (http://www.ncbi.nlm.nih.gov/pubmed/)	(MeSH Database: telenursing – search – restrict to MeSH Major Topic – Add to search builder AND communication – search – restrict to MeSH Major Topic – Add to search builder – Search pubmed).
Bireme (http://www.bireme.br)	(telenursing AND communication – método integrado – Assunto – pesquisar – Descritor de assunto – pesquisar).
Cinahl (http://www.ebscohost.com/academic/cinahl-plus-with-full-text)	(pesquisa avançada – modos de pesquisa: Booleano/Frase – telenursing – MJ Word in Major Subject Heading AND communication – MJ Word in Major Subject Heading – pesquisar).
Scopus (http://www.scopus.com/scopus/home.url)	(telenursing – Article Title, Abstract, Keywords – Add search field AND communication – Article Title, Abstract, Keywords – Search).
Web of Science (http://apps.webofknowledge.com)	(telenursing – tópico – adicionar outro campo – AND communication – tópico – pesquisar).
SciELO (http://www.scielo.org/php/index.php)	(telenursing AND communication – pesquisar).
Cochrane (http://www.thecochranelibrary.com/view/0/)	(telenursing AND communication – pesquisar).

Data analysis

The studies were identified with the letter "P" (P1 - Publication 1, P2 - Publication 2, etc.) and analyzed by three independent reviewers according to the country of publication, technology used, and communication elements.

RESULTS

In total, we found 128 publications, of which 59 were duplicated and 10 did not have the abstract, i.e., only 59 publications were evaluated according to inclusion and exclusion criteria. After reading the titles and abstracts, 35 publications were selected, 24 of them contained insufficient information for the selection. After the reading of 35 publications, 19 were selected and 16 were excluded for addressing other themes. Among the 19 selected publications, 10 responded to the inclusion criteria, and 9 were excluded for being quantitative studies, as shown in Figure 1.

Of the studies selected for analysis, 80% were qualitative, 10% were case studies, and 10% had mixed methods. Regarding the country of publication, 50% of the studies were developed in Sweden, 20% in the United Kingdom, 20% in the United States, and 10% in New Zealand. Of the ICTs used, 50% approached telephones, 30% telephones associated with a computerized decision support system, and 20% videophones, as shown in Box 2.

Box 3 shows the elements of communication evidenced in each study. The main findings concerning each element (sender, recipient and message) are described separately. As it is a dynamic process, in which nurse or patient can be senders and recipients in a same communicative moment, this division is merely didactic to identify the main findings of these studies. It also describes the conclusion of the study from the communicative perspective, if there is any.

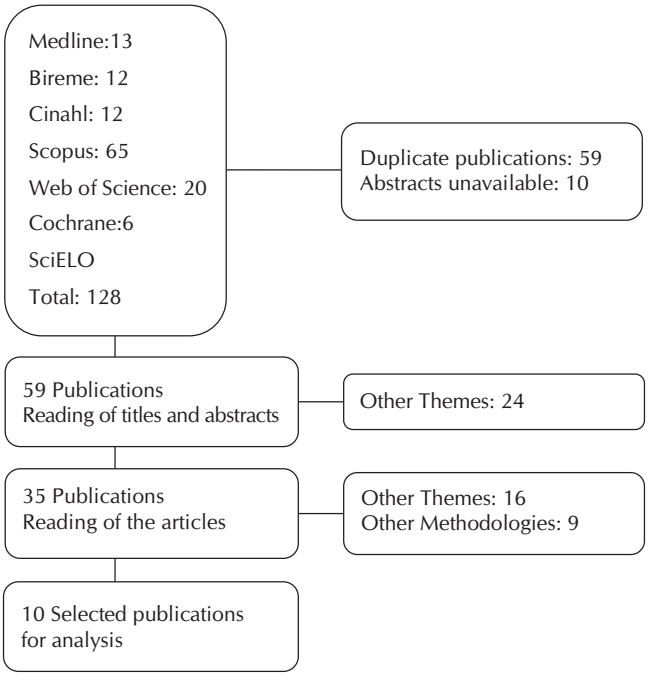

Figure 1 - Flow chart of the selection process of publications, São Paulo, Brazil, 2014

Box 2 - Characteristics of the studies according to country, year of publication, and methodological design, 2014

Publication	Country (Year)	Type of Study	Information and Communication Technology used
P1[14]	Sweden (2009)	Qualitative	Telephone
P2[15]	Sweden (2012)	Qualitative	Telephone and Computerized decision support system
P3[5]	Sweden (2013)	Qualitative	Telephone and Computerized decision support system
P4[16]	New Zealand (2007)	Qualitative	Telephone
P5[17]	United Kingdom (2012)	Mixed methods	Telephone
P6[18]	United States of America (2011)	Qualitative (case study)	Videophone
P7[6]	Sweden (2009)	Qualitative	Telephone and Computerized decision support system
P8[19]	Sweden (2008)	Qualitative	Telephone
P9[20]	United Kingdom (2001)	Qualitative	Telephone
P10[21]	United States of America (1997)	Qualitative	Videophone

Box 3 - Elements of communication, 2014

Publication	Elements of communication and Conclusions related to Communication
P1[14]	• Sender: The nurse must ask assertive questions. • Recipient: The nurse must listen carefully to quickly determine the patient's problem. • Message: Acquisition of information through nonverbal signs, e.g., via the patient's cough and breathing. • Conclusion of the study: Communication aspects were not included in the conclusion of the study.
P2[15]	• Sender: 1 - To use close-ended questions can be considered a potential threat to patients safety, while the use of open-ended questions can give a more comprehensive view of patients and, consequently, improve their safety; 2 - The importance of the message validation. • Recipient: 1 - Failure in the communication process is the most common cause of errors identified, especially involving the process of listening to the patient; 2 - In telephone counseling, if the patient does not understand what was advised, he will not know what to do after the call, compromising his safety. • Message: Impossibility to understand the nonverbal patient by telephone. • Conclusion of the study: The use of open-ended questions by nurses should be encouraged, so they can better understand the patient. As the failure in the communication process was the most common cause of errors identified, a specific training in communication must be carried out to improve this skill.
P3[5]	• Sender: Clinical alterations of patients may complicate the communication. • Recipient: 1 - Possibility that nurses are inconsistent when gathering patient data under stress and consequently in the assessment of symptoms; 2 - Difficulties in getting the message for not being "face-to-face" with the patient; 3 - The importance of listening and interpretation skills, and validation of the message received. • Message: Not evidenced. • Conclusion of the study: Inadequate data collection can affect patient safety and nurses do not seem to explore important information. Communication seems to be the key to a safe care in Telenursing and, therefore, "appropriate communication models" must be built and tested for health care practice.

To be continued

Box 3 (continuation)

Publication	Elements of communication and Conclusions related to Communication
P4[16]	• Sender: Some patients were unable to express their problems clearly, some even did not seem to know why they were calling. • Receiver: The nurses do not seem to explore key information when questioning the patients. • Message: Appropriate communication strategies can help nurses to identify in the content of the parents' message the real cause for their concern. • Conclusion of the study: The systematic use of communication strategies has the potential to improve the nursing practice. Nurses should be trained in strategies of communication that are specific and appropriate to their specialty, to favor the recognition of patients' problems and enable their participation in the elaboration of the care plan.
P5[17]	• Sender: Importance of clarity in the instructions given by the nurse. • Receiver: Parturients satisfied with the Telenursing service said that they received clear and useful instructions. • Message: Clear messages improve patient satisfaction. • Conclusion of the study: Most of the parturients who reported being satisfied with the Telenursing service related the satisfaction to the telephonic contact, which provided them clear, useful, and confident instructions. On the other hand, women who did not have their expectations/troubles solved avoided using the service.
P6[18]	• Sender: Patients can recognize and respond to nonverbal signals, even with technology. • Recipient: Patients can recognize and respond to nonverbal signals, even with technology. • Message: The demonstration of feelings through nonverbal signals such as smile, can be perceived via videophone. • Conclusion of the study: Nonverbal communication can be recognized via videophone.
P7[6]	• Sender: The patient must provide information about his condition safely and correctly. • Recipient: 1 - Some patients do not hear the nurse because they want a doctor's appointment. 2 - Decision support system helps the nurse to be heard by the patient. • Message: 1 - Decision support system lacks important information about signs and symptoms. 2 - The patient must provide correct and relevant information about his condition.

To be continued

Box 3 (continuation)

Publication	Elements of communication and Conclusions related to Communication
P7[6]	• Conclusion of the study: The use of computerized systems may mecanize and undermine the communication between nurses and patients.
P8[19]	• Sender: The father speaks on behalf of the sick wife or child and is unable to describe the symptoms. • Recipient: 1 - The assertiveness of the father bothers the nurse, and the latter prefers to talk to the mother. 2 - The father does not know how to answer the questions of the nurse, which complicates the assessment. • Message: The father verbally assaults the nurse and belittles her work. • Conclusion of the study: Communication aspects were not included in the conclusion of the study.
P9[20]	• Sender: 1 - The visual absence may be beneficial for patients who need anonymity due to embarrassing medical conditions. 2 - The use of "therapeutic silence" is very difficult to be done by telephone. 3 - The nurse monitors and modulates the voice quality to overcome the lack of visual references. • Recipient: 1 - The patient may have difficulty in interpreting the silence. 2 - The nurse develops techniques to listen to the nonverbal signals of the patient to the detriment of the absence of visual references. • Message: To select patients without visual references is the main challenge in the consultations by telephone. It may be more difficult to establish a relationship of trust due to the absence of visual contact. • Conclusion of the study: The lack of visual references influences the evaluation of the nurse, it can also decrease the speed of clinical reasoning, limit or contraindicate interventions. Many nurses have developed abilities and communication skills to manage the absence of visual references. With the aid of a computer program, the nurses become more perceptive, improve their ability to hear, and listening becomes selective.
P10[21]	• Sender: The participants felt comfortable talking through technology and they did not find differences between talking to a nurse in person or by the telecommunication system. • Recipient: Aspects of communication about the receiving of messages were not included. • Message: 1 - Patients felt that nurses were "nice, sweet and gentle" when transmitting the information. 2 - The content of the conversations is restricted to the health of the patient. • Conclusion of the study: The use of telehealth technology did not seem to have any negative effect on communication. The participants did not find differences between talking to a nurse in person or by the telecommunication system.

DISCUSSION

The results demonstrate the relevance of the communication process in Telenursing. The main challenges of the studies were: 1 - the difficulty of expression and apprehension of nonverbal communication, mainly observed in the interaction by telephone[15,18,20]; 2 - the possibility of inadequate communication to cause clinical misconduct[5-6,15-16,20]; 3 - the limitation that computerized decision support systems create in nurses regarding their communication[5-6,15]; 4 - the need to use appropriate verbal communication strategies rather than nonverbal limitations[5-6,14-17,20]; and 5 - the need to develop the capacity of perception of paraverbal, regardless of the availability of visual resources, i.e., the context where the interaction occurs[5,14,18,20].

Nursing interventions identified in the Orem's Theory[22] — namely: to advise, to give physical and psychological support, to create an environment to promote personal growth and provide instruction or education — corroborate the Telenursing practice and highlight the importance of information and communication in nursing[17]. The five categories identified in a Swedish study that described the different ways to understand Telenursing[14] — to assess, consult and give advice to the patient; to support the patient; to strengthen the patient; to teach the patient; and to facilitate the patient's learning — corroborate Orem's theoretical framework.

Considering that the main sources of information for nurses are the dialogues with the interlocutors, the patient safety depends on the quality of the communication process[5]. Therefore, nurses must be an accessory in the course of the interaction — to listen carefully and allow the interlocutors to present their problems in their own way — avoiding thus to guide them erroneously[6].

Regarding the incorporation of ICTs in nursing practice, the use of computerized decision support systems, for example, simplifies the work for several reasons: facilitates and streamlines the decision-making process, complements the knowledge in areas where clinical experience is limited, subsidizes more security in the survey of problems, and ensures better quality in Telenursing[6]. However, the computerized decision support system is incomplete (the absence of information about important symptoms and incomplete self-care advice, threatening its credibility) and inconsistent with the nurses' opinions (reducing their professional autonomy, arousing the feeling of passivity, inhibiting the knowledge potential and the professional experience).

We suggest, therefore, that the use of softwares in nursing should not replace nurses' knowledge and skills, but be a complement to their activity; otherwise, nurses may lose their capacity for critical reasoning, as well as limitate their ability to individualize the care, mechanizing their communication with patients[6].

The effectiveness of verbal communication depends on the use of some techniques related to expression (silence, the validation of the message received, reflective listening and the verbalization of interest), clarification (comparisons, returning of questions and request for the explanation of unknown terms or doubts) and validation of information (to repeat what was said or ask the person to do so)[2]. The studies evaluated discuss more aspects of the nonverbal communication, considering that, from a distance, communication challenges are mainly caused by the difficulty of understanding nonverbal signals.

Specifically about verbal communication and the "sender" element of the communication process, studies showed that nurses should use techniques to improve these skills in Telenursing assistance, on how to ask open-ended and assertive questions[14], since the use of close-ended questions can be a threat to patient safety[15]. Patients' clinical conditions may interfere in the talking[5] and they must provide correct and safe information about their health condition[6]. Not only patients, but nurses must transmit the information clearly for an effective assistance[17]. Patients talked

comfortably using technology, and they did not find differences between talking to the nurse in person or indirectly[21]. One of the publications considers gender a communication barrier. It considers that, in the case of telephone service in pediatrics, the experience showed a great difficulty in the transmission of information by the children's parents, being easier to dialogue with the mothers. The publication concludes that gender may influence the content of the verbal communication[19].

About the "sender" element in verbal communication, although 90% of the studies consider the absence of visual interaction as a communication barrier, it was found that, in cases of patients with "embarrassing" clinical conditions, the lack of eye contact may be beneficial, because it ensures the anonymity[20].

Still about verbal communication, but in the "recipient" element of the process, it was showed that, by Telenursing, if the patient does not understand the message received, he will not know what to do after the consultation, and this fact can certainly impair the safety of the care provided. In addition, the most common cause of misconduct identified was attributed to flaws in listening to the patient[15]. The importance of receiving the message properly through attentive listening is reiterated in another study[5], and another one raised an important problem from the communicative point of view: nurses do not seem to explore key information when questioning the patients[16]. To explore important questions about the patients' health condition keeps them safe and satisfied[17]. ICTs are cited as an aid to nurses in this matter, since they provide very accurate information, making the patient listen carefully[6]. The gender issue was again cited in this context, when it concludes that, in telephone counseling with parents about their sick children, nurses feel uncomfortable with the assertiveness of the father, preferring to receive the message content from the mother[19].

Treating specifically of the nonverbal communication and of the "sender" element, the importance of the use of the message validation technique was cited[15], however, little is discussed about the use of nonverbal signs as means of communication. Indeed, nonverbal communication can supplement the verbal communication, replace it, or contradict it, besides showing feelings and emotions, mainly through facial expressions[2]. Therefore, nonverbal communication can be used as a communicative resource, but it was not cited this way.

About the "receiver" element in nonverbal communication, it was cited as "impossibility" to the perception of the patient's nonverbal signals from afar[15]. The difficulties in receiving messages when the interlocutor is distant is attributed entirely to the nonverbal communication[18,20]. Even so, the smile is very important in the course of interactions[18].

Patients and nurses recognized nonverbal signals and responded to them appropriately in the interaction mediated by technology[18]. Patients had difficulty in interpreting the silence. Nurses also reported the same difficulty, but they developed techniques to understand the signals emitted by the patient because of the absence of visual references[20]. However, the use of silence as nursing intervention, often used to comfort, was contraindicated in mediated interaction by telephone, for not providing additional references to the interlocutor and, thereby, for complicating the interpretation[20].

Regarding the use of ICTs in the interaction by telephone, nurses are more likely to use open-ended questions and answer channels (listening instructions), and to validate the understanding of the interlocutor, in comparison with the interaction by videophone. This tendency may indicate that, in the interaction by videophone, visual resources constitute a compensatory mechanism that enhances the use of nonverbal communication to indicate interest and listening[18]. In this sense, an adaptation of the nurses to the working context is observed, exploring communication techniques compatible with the technological resources available.

Still about the interaction by telephone, the impossibility of apprehending the physiological communication (visible signs of disease, such as respiratory pattern and color of the patient's skin) and the need to rely on the descriptions of the interlocutors can influence the assessment of the informant's credibility and complicate the nurses' clinical reasoning and diagnosis, as well as the establishment of a relationship of trust[20].

To compensate for the lack of visual references, many nurses, with the aid of a computer program with visual resources, developed abilities and communication skills to build a relationship of trust with the interlocutors, making them more perceptive and enhancing their ability to listen[20]. However, dispensed attention when handling the software may compromise the communication process by diverting the dispensed attention to the interlocutor, interfering in the reception of messages[6].

Regarding videotelephony, the eye contact indicates involvement and promotes understanding, and the forward inclination of the body demonstrates interest[23]. Thus, this ICT ensures a communication style more natural, mainly by eye contact, which establishes relationships of trust, and the sense of proximity, integration, protection, and safety to express needs, expectations, and feelings[24].

A randomized clinical trial that evaluated a home intervention of 90 days for heart failure, with the aim to compare the differences of communication profiles of the nurse-patient relationship between two modes of telehealth (telephone [n = 14] and videophone [n = 14]) and to evaluate the longitudinal changes in communication, did not showed significant differences in the perception of nurses and patient satisfaction[25]. However, the instrument used in the analysis of the communication profiles did not evaluate nonverbal behaviors.

Regarding the "message" element of the communicative process at a distance, it is important for nurses to pay attention to nonverbal signs, e.g., the patient's cough and breathing, to compose the assessment[14]. Also, several feelings of the patient can be identified when the nonverbal message is decoded[18]. The message that is transmitted by both, recipients and senders, must be accurate, ensuring the effectiveness of this exchange[6]. In addition, appropriate communication strategies can help nurses to identify the real cause for the patient's concern[16].

It should be noted the absence of Brazilian publications in this integrative review, which can be justified by the fact that the scope of the studies published in Brazil is not restricted to Telenursing as an assistance mediated by remote telecommunications, but cover mainly processes of Teleducation.

As limitations of this study we highlight the limits of inclusion and exclusion criteria, by restricting the selection of other

publications that could bring important contributions to this review, as well as the exclusion of theoretical and reflective studies and quantitative approach in the analysis process. In addition, a search strategy was used based on controlled descriptors for greater data accuracy. However, not using a combination of these with uncontrolled terms may have limited the findings. The results show the need for more studies to evaluate the communication process in Telenursing, particularly in Brazil.

CONCLUSION

Concerning the objectives of this study, which were to identify and analyze the scientific evidence about the communication process, we found that the distance imposes communicative barriers in all elements: sender, recipient and message and in both ways of transmission (verbal and nonverbal). The main challenges cited were: the clinical condition of patients; the possibility for inadequate communication to cause clinical misconduct; the limitation that computerized decision support systems create in nurses regarding their communication; the lack of visual references when communication is mediated by technologies without video; and especially the difficulty of understanding nonverbal communication, particularly when done by telephone. ICTs are cited as assistance to nurses: in the interaction by videophone, visual resources constitute a compensatory mechanism of the distance, bringing the sense of proximity, integration, protection, and safety to express needs, expectations, and feelings. Despite the technology and the use of different resources to overcome barriers of time and distance, for the implementation of proper care, nurses should receive specific training to develop abilities and communication skills.

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