

Registered nurse–patient communication research: An integrative review for future directions in nursing research

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Abstract

Aim: To explore communication research in nursing by investigating the theoretical approaches, methods, content and perspectives in research on real-time registered nurse (RN)–patient communication.

Design: An integrative review of real-time communication between RNs and patients.

Data Sources: Empirical research papers were searched in PubMed, CINAHL Plus and Medline. The results from the database searches were supplemented with results from manual searches in reference lists.

Review Methods: A total of 1369 articles published between January 1996 and December 2021 were screened, which resulted in the inclusion of 52 articles.

Results: The integration of various theories, such as nursing or communication theories, is weak in most of the included studies. RN–patient communication appears to influence relationship building. Even when nurses strive to meet patients' needs, they often focus primarily on nursing routines and physical care. The topic of the communication varies depending on the situation and different communication styles are used. When a patient-centred approach is adopted, the interpersonal communication becomes quite symmetrical, with complementary roles of nurses and patients. Within a more asymmetric communication context, nurses dominate communication, choose topics and function as instructors. How the nurses communicated subsequently influenced the patients' communication styles and strategies.

Conclusion: Communication is multifaceted, contains different strategies and is important for building trust and facilitating patient-centred care. The importance of RNs' communication for interaction and relationship-building seems to be well established within research, but few studies focused on patients' communication with RNs.

Impact: This integrative review gives an overview of the width and depth of observational studies on RN–patient communication research. The variety of studies indicates that this area is a less well-grounded field of research. Future research is warranted to support nurses in their communication, especially regarding the exploration of patients' communication and desired communication skills in nurse–patient interactions.

Patient or Public Contribution: No patient or public contribution was included in this integrative review.

KEYWORDS

communication, integrative review, interaction, patient, registered nurse

1 | INTRODUCTION

Communication is considered a core principle of nursing practice (Casey & Wallis, 2011). The importance of communication and a well-functioning nurse–patient relationship to provide high-quality care is well known (Caris-Verhallen et al., 1997; Fleischer et al., 2009; Shattell, 2004; Street et al., 2009). The ability to provide effective communication is also emphasized as central for assuring high-quality care and patient safety, as well as detecting important needs, providing support and information and enhancing patient learning (Kwame & Petrucka, 2022). There has also been a strong trend for patient- or person-centred care, which highlights patients' rights to autonomy, information and shared decision-making, in which communication is a key element (Håkansson Eklund et al., 2019). Furthermore, Sundler et al. (2020) have stressed the importance of acknowledging communication skills that can facilitate person-centred care. However, less is known about the actual communication, hereafter called real-time communication, between registered nurses (RNs) and patients. To the best of the authors' knowledge, there is no recent review on the real-time RN–patient communication, and how such studies are guided by theory.

2 | BACKGROUND

Communication and interaction are complex processes that are central to the exploration and understanding of patients' health conditions (Parker et al., 2020). The terms communication and interaction are often used interchangeably in nursing research and are seldom clearly described or explained (Fleischer et al., 2009). Both interaction and communication are processes and situations involving behaviours that are communicative and convey messages. However, interaction can be seen as a superior term characterized by a mutual and dynamic process, while communication can be seen as a special type of interaction linked to the exchange of information and experiences with the aim of reaching understanding and building a relationship. Communication includes both verbal and non-verbal expressions and is described as something that always happens when people meet, making it a prerequisite for constructive interactions (Fleischer et al., 2009; Watzlawick et al., 1967/2014). Communication is a core element of nursing care used as a promoter or tool for interaction and relationship-building, and nursing communication also influences patients' health and well-being (Fleischer et al., 2009). For instance, communication can instil trust, support well-being or self-care actions and strengthen the patient's autonomy.

Interaction and communication are critical for assessing the needs and outcomes of patients, such as increased knowledge,

self-care skills, adherence to treatment, trust, high-quality medical decisions, social support and empowerment (Street et al., 2009). Until now, the number of RN–patient communication studies and reviews in this field is sparse, compared to the number of studies and reviews on physician–patient communication, see, for instance, Beck et al. (2002), Laidsaar-Powell et al. (2013), Zill et al. (2014), Cohen et al. (2017) and Ghosh et al. (2020). There are some previous reviews in nursing, but no recent literature review with a focus on studies using observations (in person, or by audio or video recording) of communication between RNs and patients. Previous reviews have focused on theoretical nursing models and care for older people (Caris-Verhallen et al., 1997); additionally, reviews have observed a unidirectional focus in nurses' communication (Shattell, 2004) or have noted that the concepts of interaction and communication were used interchangeably (Fleischer et al., 2009). In addition, a theoretical perspective was often lacking, except for the use of the cognitive model of social information processing (Sheldon & Ellington, 2008).

Nurses' communication with patients is commonly embedded in everyday activities (Macdonald, 2016; Sundler et al., 2016) and can occur while performing nursing tasks (Fleischer et al., 2009; Shattell, 2004). Nursing care requires an understanding and sensitivity to patients' experiences and emotional concerns. Nurses' relationship-building and communication with patients include the confirmation of emotions (McCabe, 2004). The communication is also important for addressing patients' needs and worries (Högländer et al., 2017; Sundler et al., 2016). Thus, communication and interaction are imperative and can reflect humanistic values of respect, self-determination and empathy (McCormack et al., 2011).

The present review focuses on studies of real-time RN–patient communication. Methods and approaches used to investigate real-time communication vary. To date, observational methods seem to have been less frequently used than other methods when describing or investigating communication. Most studies used retrospective qualitative interviews of nurses and/or patients concerning their communication (Amoah et al., 2019; Chan et al., 2019; Fleischer et al., 2009). It has been suggested that further research using real-time observations in nursing research is needed (Liu et al., 2021; Williams et al., 2017). However, research using real-time observations like audio or video recordings for data collection may be challenging. For instance, data collection involving nurses tends to invade the normal workflow more compared to doctors, while nurses tend to walk around much more, doctors most often meet patients while sitting down. Thus, nursing encounters are more complicated to record with an unmanned camera during ordinary nursing care. There may also be difficulties to manage data collection when the researcher must engage nurses in the recruitment of patients (Sundler et al., 2017). As stressed by Liu et al. (2021) recordings may influence the actual situation as participants being aware of the

recording may act in a different way when being recorded. Although no huge differences are being observed (Arborelius & Timpka, 1990; Penner et al. 2007; Pringle & Stewart-Evans, 1990). There may also be challenges to obtain access to the field when recruiting participants, and when obtaining ethical approval concerning the intrusiveness of using recordings in, for instance, home care services when data are collected in a person's own home and with respect to their integrity (Sundler et al., 2017).

RN–patient communication is a hallmark of professional competence in nursing that is sometimes undervalued. There is a need for a current assessment of the state-of-the-art research on real-time communication between RNs and patients to identify what is known in this area and what has not yet been researched. More knowledge is needed on real-time communication and on how to apply the best communication practices.

3 | THE REVIEW

3.1 | Aim

The aim of this review was to explore communication research in nursing by investigating the theoretical approaches, methods, content and perspectives in research on real-time RN–patient communication.

3.2 | Design

An integrative review was conducted to assess nursing research on real-time communication between RNs and patients. An integrative review is a broad research review that allows the researcher to combine both theoretical and empirical literature and to include a variety of data types and diverse methodologies (Whittemore & Knaf, 2005). The present review followed the process described by Whittemore and Knaf (2005), encompassing problem identification, a literature search, data evaluation, data analysis and the presentation of results. The sources of data were empirical research papers, and no theoretical literature was used.

3.3 | Search methods

A systematic literature search strategy was undertaken to identify relevant studies. Article retrieval was performed via database searches and manual searching. The latter involved searching for articles in the reference lists. First, we conducted computerized database searches in PubMed, CINAHL Plus, and Medline with assistance from a librarian. Keywords (based on MeSH terms) of “nurse” and “patient” or “person” and “communication” or “observation” were used in the searches. When scanning the search results, the following inclusion criteria were used: (1) observational studies of real-time RN–patient communication, (2) peer-reviewed studies, (3)

studies that were written in English and (4) studies that were published between January 1996 and December 2021. The limitation in the years was based on a previously published literature review that covered articles published before 1996 (Caris-Verhallen et al., 1997). Articles not available in full text ($n = 6$) were excluded.

Unpublished manuscripts, abstracts, and dissertations were excluded, as well as studies involving participants younger than 18 years of age. Furthermore, we excluded studies with participants from different professions when it was impossible to distinguish the results on RN–patient communication from other healthcare professional–patient communication. This exclusion ensured that the focus on RN–patient communication was maintained. Articles were excluded if they lacked descriptions of methods (e.g. data collection, analysis or participants) or the study did not include real-time communication; for example, studies with indirect methods used to assess communication, such as interviews.

3.4 | Search outcome

An initial broad search of the literature yielded a total of 1369 references. All the references from the search were screened for duplicates. The references were screened by title, after which they were screened by abstract. A second screening of the methods section was performed to verify whether the articles complied with the inclusion criteria. A total of 128 references were read in their entirety by four of the authors. Each author screened a fourth of the references, and joint discussions were enacted to resolve any doubts and to maintain compliance with the inclusion and exclusion criteria. The second screening was comprehensive, with multiple checks to verify the accuracy of the screenings and to validate that all the inclusion and exclusion criteria were met. After the second screening, additional articles were included through an additional hand search and from the screening of the reference lists ($n = 16$), which finally resulted in the inclusion of 52 references. The literature search was documented as a Prisma flow diagram, see [Figure 1](#).

3.5 | Quality appraisal

For the quality appraisal, we used the Mixed Methods Appraisal Tool (MMAT) version 2018. The MMAT was designed to appraise the quality of empirical studies and permits for appraisal of qualitative research, randomized controlled trials, non-randomized studies, quantitative descriptive studies and mixed methods studies. The MMAT checklist contains two screening questions, and five questions for each of the five different study designs included in the appraisal (Hong et al., 2018). Each study was screened and rated in accordance with MMAT. To ensure consistency among the researchers we discussed our appraisal based on the methodological quality criteria. All the included articles demonstrated high quality (based on the MMAT) and met 75%–100% of the evaluated criteria in the MMAT checklist.

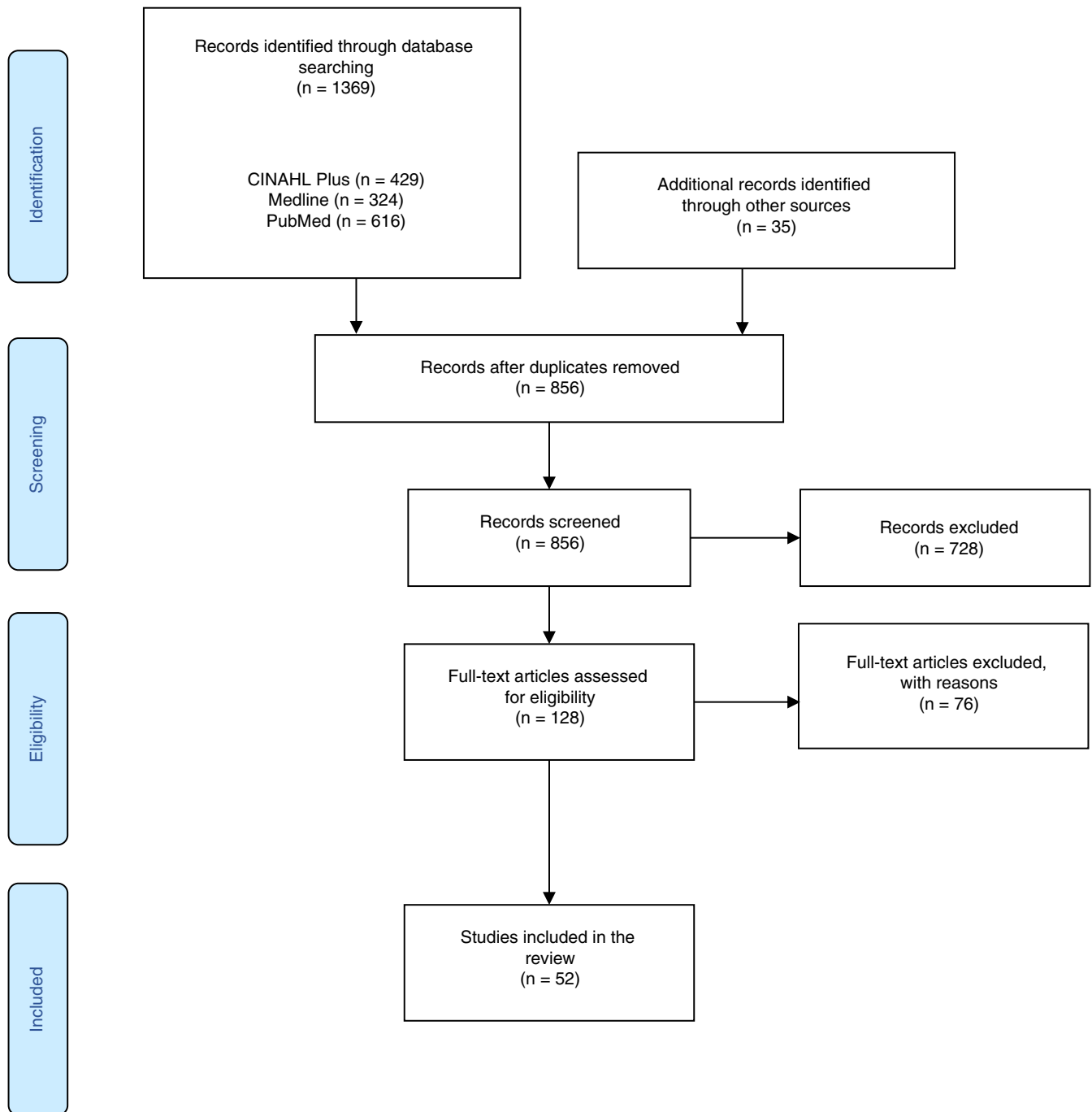


FIGURE 1 Flow diagram of the literature search.

3.6 | Data abstraction and synthesis

The following data were extracted from the studies and organized as follows: theoretical approach, aim, methods and design, setting, participants, data collection, analysis and results. The extracted data were compared and analysed for differences and similarities, and similar data were grouped. The analysis followed a constant comparison method, as suggested by Whittemore and Knafel (2005). With constant comparison patterns, variations and similarities are established. This method is preferable when using a variety of data

that are obtained with different methodologies (Whittemore & Knafel, 2005), as was done in the present study.

4 | RESULTS

The results are presented in three main sections: theoretical approaches used in studies on real-time RN–patient communication, methods, and approaches used for examining RN–patient communication, and the meaning and nature of RN–patient communication.

4.1 | Theoretical approaches used in studies on real-time RN–patient communication

In general, the theoretical perspectives related to RN–patient communication were implicit. None of the studies used a nursing theory or theorist, and most of the studies had no clear theoretical underpinnings for communication. In some studies, a patient- or person-centred perspective was described as a conceptual framework underlying RN–patient communication and interaction, thus demonstrating an interactional and relationship-based view on communication (Bolster & Manias, 2010; de Leeuw et al., 2014; Ellington et al., 2018; Ernesäter et al., 2016; Hakimnia et al., 2014; James et al., 2020; Sundler et al., 2020). There were also theoretical views on empathy described in relation to RN–patient communication (de Leeuw et al., 2014; Eide, Sibbern, Egeland, et al., 2011; Eide, Sibbern, & Johannessen, 2011) and a social constructionist perspective (Barrere, 2007; Gordon et al., 2009).

4.2 | Methods and approaches used for examining RN–patient communication

The characteristics of the 52 included studies are summarized in Table 1. Altogether, these included 739 RNs and 3317 patients. Data collection of real-time RN–patient communication was mainly conducted through audio or video recordings ($n = 43$) or participatory observations ($n = 9$). The most commonly used methods for coding data were the Verona coding definition of emotional sequences [VR-CoDES] ($n = 8$), the Roter interaction analysis system [RIAS] ($n = 6$) and conversational analysis [CA] ($n = 4$).

Most papers originated from Nordic countries (e.g. Sweden, Norway, Finland and Denmark, $n = 22$), and some papers were from the United States ($n = 8$), the Netherlands ($n = 5$), England/UK ($n = 5$), Australia ($n = 5$), and Canada ($n = 2$). Single papers were from Iran, Indonesia, New Zealand, China and Switzerland. Hospitals and primary care settings were the prevailing settings, followed by home care, hospice and telenursing settings. In most studies, participants were commonly and solely comprised of RNs and patients ($n = 41$).

4.3 | The meaning and nature of RN–patient communication

The meaning and nature of RN–patient communication were categorized as (1) the focus and impact of communication, (2) various, more or less person-centred communication styles and (3) the content of patient communication, further described below.

4.3.1 | The focus and impact of communication

The focus of communication was found to influence the relationship-building and interaction between RNs and patients. The focus of the

communication could both point to and result from a power imbalance between RNs and patients.

The interaction between RNs and patients changes during encounters and might signify both symmetry and asymmetry (Barrere, 2007). When building a relationship, the roles of RNs and patients could be complementary and facilitate symmetry through a social exchange in the communication such as humour and trust (Lotzkar & Bottorff, 2001) or by including the patient's family members (Reblin et al., 2016). However, psychosocial issues, positive emotions and partner statements usually receive much less attention than physical care information (Ellington et al., 2018). RNs were found to dominate the communication and interaction when they initiated the contact, decided on the topic, or had an instructor role (Duxbury et al., 2010; Ellington et al., 2018, 2012; Högländer et al., 2017; Kettunen et al., 2000; Pettersson et al., 2018). RNs' dominance was also observed in consultations in which they talked more than their patients (Ellington et al., 2018, 2012). RNs' contributions to the interaction and communication with patients were sometimes minor compared to other professionals such as physicians (Weber et al., 2007).

A dominant discourse of communication was also described as nonpatient centred (Siouta et al., 2019). The dominant role could increase or decrease, depending on the RN's interaction with the patient (Barrere, 2007; Ellington et al., 2018, 2012). If the RNs instead invited the patient to participate in his or her care, it could decrease the asymmetry in the relationship (Bolster & Manias, 2010).

Even if the RNs strived to meet patients' needs, they often focused on nursing routines, for example, tasks regarding nutrition, hygiene, physical examinations or medication administration (Gordon et al., 2009; Macdonald et al., 2013; Prip et al., 2019) as well as on patients' medical conditions and questions (Johnsson, Wagman, et al., 2018; Prip et al., 2019). RNs were often the ones who initiated the gathering of patient information (Duxbury et al., 2010), and the communication became characterized by a focus on treatment, which seldom explored patients' existential and psychosocial concerns (Prip et al., 2019). RNs were reported to be more confident and efficient in communication on medical or physical aspects, rather than in communication on emotional aspects (O'Baugh et al., 2009). Some studies reported that RNs exhibit poor skills in answering patients' questions (Carlsson & Pettersson, 2018; Collins, 2005; Roche & Jones, 2021), clarifying their doubts or exploring their comments (de Leeuw et al., 2014; Duxbury et al., 2010; Eide, Sibbern, Egeland, et al., 2011; Eide, Sibbern, & Johannessen, 2011; Ernesäter et al., 2014; Ernesäter et al., 2016; O'Baugh et al., 2009).

4.3.2 | Various, more or less person-centred communication styles

RNs' communication with patients was multifaceted. In some situations, communication became more focused on the RNs' agenda; compared to when RNs used a more patient-centred approach. RNs also used different communication styles and strategies. There were

TABLE 1 Characteristics and summary of included studies

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Barrere (2007), USA Discourse analysis of nurse–patient communication in a hospital setting: implications for staff development	To examine nurse–patient communication and identify interactions of symmetry and asymmetry	Qualitative ethnographic study with a cross-sectional design using discourse analysis	Hospital Data gathered from 140 audio-taped nurse–patient conversations Participants: 20 nurses (10 females/10 males) 20 patients (10 females/10 males)	The nurse–patient interactions demonstrated both symmetry and asymmetry, and this changed during conversations. The nurses were found to be dominant and had an instructor role; they initiated the interaction and introduced new topics; they instructed patients about medications, procedures and test results. Patient education occurred and nurses provided reassurances in every interaction. The instructor role was found to increase the asymmetry and the nurse's dominant role. When the nurses provided time for the patient to talk and were not rushed, the symmetry increased. The nurses were reported to listen to the patients, even if they sometimes overlooked the patient's cues
Berry (2009), USA Nurse practitioner/patient communication styles in clinical practice	To investigate nurse practitioner–patient communication styles in clinical practice	Quantitative cross-sectional design using quantitative manifest content analysis guided by Roter and Hall's communication styles	Nurse practitioner (NP) office visits Data were gathered from 53 audio-taped interactions. Participants: 53 NP (43 females/10 males) 53 patients (29 females/24 males)	The findings suggest that approximately one third of NPs (30.2%) used a patient-centred communication, versus NPs who used a provider-centred communication (69.8%). The nurses frequently used information-giving and information-seeking styles. Less frequently the nurses used social conversations, positive talk and partnership building. Negative talk was the least used
Bolter and Manias (2010), Australia Person-centred interactions between nurses and patients during medication activities in an acute hospital setting: qualitative observation and interview study	To examine the nature of interactions between nurses and patients during medication activities in an acute care setting with an underlying philosophy of person-centred care	Qualitative study using a naturalistic observational research design	Hospital, acute care ward Data gathered from observations (n = 11) and interviews (n = 27) Participants: 11 nurses (9 females/2 males) 25 patients (6 females/19 males)	Some nurse–patient interactions during medication activities were found to be consistent with a person-centred care. The nurses commonly initiated and dominated the interactions and provided patients with information. They sometimes missed opportunities for patient participation. The nurses were described to stand beside the patient's bed, making little eye contact with their patient. Only a few nurses sat down during the medication activities. Nurses appeared to be rushed with limited time for the patients and the environment was hectic and demanding for the nurses. Barriers to person-centred care were observed when the care was centred on routines or the nurses' views rather than the individual patient
Carlsson and Pettefsson (2018), Sweden Communicative and pedagogical strategies in nurses' and surgeons' discharge consultations with patients undergoing surgery for colorectal cancer.	To describe the structure, content and the communicative and pedagogic strategies in discharge consultations between patients and professionals after colorectal cancer surgery	Explorative study using both quantitative and qualitative design	Hospital, surgical care Data gathered from 13 audio-taped nurse–patient and surgeon–patient consultations Participants: 7 nurses (all females) 7 patients (3 females/4 males) 4 surgeons (all males)	The communication and length of time varied among the consultations with nurses and surgeons. There were more questions in the consultations with surgeons than with nurses. Medical terminology was used by both nurses and surgeons during conversations and information-giving. In relation to medications, nurses seemed vaguer in their instructions. Both nurses and surgeons gave clear as well as unclear responses to patients' questions. Patients asked more questions if responses from the professionals were unclear. Clear communication was deemed important to help patients manage their recovery and regain control

TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Collins (2005), USA Explanations in consultations: the combined effectiveness of doctors' and nurses' communication with patients	To consider how explanations are deployed in patients' communication with doctors and nurses	Qualitative. Comparative design Conversation analysis	Primary healthcare Data gathered from 38 video- and audio-recorded consultations <i>Participants:</i> 5 Nurses (all females) 6 Doctors (1 female/5 males) 23 Patients (Sex NS)	During consultations, nurses used a language that was more everyday-like, compared to doctors who used a more technical and medical language. The nurses provided space and responded to patients' views to a larger extent than the doctors did. In consultations with nurses, the patients' problems and concerns seemed to be given more space, while doctors tended to have a more medical point of view. The study concludes that these differences are complementary in their contribution to the individual care of patients
de Leeuw et al. (2014), the Netherlands Nurse-patient communication in follow-up consultations after head and neck cancer treatment	To explore the content and form of nurse-patient communication in follow-up consultations with HNC patients with or without a partner present	Descriptive observational study using quantitative methods Data coded with the Medical Interview Aural Rating Scale	Hospital, Oncology outpatient clinic Data gathered from 17 video-recorded nurse-patient consultations <i>Participants:</i> 3 Nurses (all females) 10 Patients (5 females/5 males) 6 Partners (3 females/3 males)	The findings describe that patient cues were found to consist of more vague expressions rather than clear expressions of emotions. Nurses most frequently responded with distancing behaviours to patients' and partners' cues, hence reducing rather than providing space in the communication, however, most informational questions were adequately addressed. Most nurses' conversations contained small talk to keep the conversation going, without further exploration of patients' utterances. The study concludes that adequate cue and question responses remain challenging for nurses.
Drevenhorn et al. (2001), Sweden Counselling Hypertensive patients: an observational study of 21 public health nurses	To observe what kind of nonpharmacological treatment was given by the nurses during visits for blood pressure measurement and to measure the nurse's and the patient's activity level using the Nurse Practitioner Rating Form (NPRF) instrument	Quantitative observational study	Primary healthcare Data gathered from 63 observations of blood pressure assessments <i>Participants:</i> 21 Nurses (sex NS) Patients (numbers and sex NS)	Nurses' conversations with patients were found to mostly contain somatic or medical issues. Almost all patients were found to ask questions about medications. Non-pharmacological information was mainly related to diet and physical activity. In 15 out of 63 observations, psychosocial content was observed during non-pharmacological conversations
Duxbury et al. (2010), England A structured observation of the interaction between nurses and patients during the administration of medication in an acute mental health unit	To describe current practice in the administration of medication in an acute psychiatric unit and explore factors that influence nurses' decisions regarding the administration of medication during 'rounds	Quantitative observational study	Hospital, acute mental health ward Data gathered from 20 observations of nurse-patient interactions during medication administration <i>Participants:</i> 24 Nurses (12 females/12 males) 57 patients (sex NS)	During interactions nurses often demonstrated warmth, empathy and a diplomatic interpersonal style. In most of the observations, the nurses checked that they had understood the patients' perspectives. The nurses demonstrated active listening skills. This was often shown through affirming nods, eye contact, or expressing caring and concern. There was a good balance of verbal communication in most observations (93% between nurses and patients). Information giving was initiated more by the nurses than by patients. Solutions to problems initiated by patients were commonly explored. There were situations when the patients' views were not explored, and the nurses did not always ask for patients' views or acceptance of medication

(Continues)

TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Efrainsson et al. (2015), Sweden Nurses' and patients' communication in smoking cessation at nurse-led COPD clinics in primary health care	To describe smoking cessation communication between patients and registered nurses trained in MI in COPD nurse-led clinics in Swedish primary health care	A prospective observational study using quantitative methods	Primary health care Data gathered from 26 video-recorded nurse-patient non-smoking consultations Participants: 6 Nurses (all females) 13 Patients (11 females/2 males)	During the non-smoking consultations, the nurses asked closed-ended questions, made reflections, and provided information, and they did not adhere to the principles of a motivational interview in the interactions with patients. Patients were mainly neutral or adhered to what nurses said, but there was a limited focus on how the patient could stop smoking
Eide, Sibbern, Egeland, et al. (2011); Eide, Sibbern, & Johannessen, 2011, Norway Fibromyalgia patients' communication of cues and concerns: interaction analysis of pain clinic consultations	To explore the types of concerns and cues patients expressed in an initial consultation with a nurse at a pain clinic, how and who initiated these cues and concerns, and predictors of these expressions	A cross-sectional exploratory design. Quantitative analysis of data coded with VR-CoDES	Pain clinic Data gathered from 58 video-recorded nurse-patient consultations Participants: 5 Nurses (4 females/1 male) 58 Patients (49 females/9 males)	The consultations in this study had a mean duration time of 36.14 min (range 14.25–52.30). In these, the patients expressed 801 cues and concerns, mostly about pain. The patients expressed more explicit concerns when nurses to a higher extent responded emphatically. When lacking empathic responding there was an association with patients expressing more implicit cues. The study concludes that the patients with fibromyalgia in the study expressed many expressions contained emotional distress. They more often expressed implicit emotional cues ($n = 591$) rather than explicit concerns ($n = 210$). The study suggests that education and skills training may be needed to help professionals to detect expressions of emotional distress and to respond in an empathic manner
Eide, Sibbern, Egeland, et al. (2011), Eide, Sibbern, and Johannessen (2011), Norway Empathic accuracy of nurses' immediate responses to fibromyalgia patients' expressions of negative emotions: an evaluation using interaction analysis	To describe and evaluate nurses' immediate responses to fibromyalgia patients' expressions of negative emotion in first consultation at a pain clinic	Descriptive observational study using quantitative analysis of data coded with VR-CoDES	Pain clinic Data gathered from 58 video-recorded nurse-patient consultations Participants: 5 Nurses (4 females/1 male) 58 Patients (49 females/9 males)	In this study, 801 responses by nurses to patients' expressions of emotional cues and concerns were coded. The nurses most frequently (75%) responded by using minimal encouragement to patients' emotional expressions, with explicit recognition to 13% of expressions and the rest (12%) were responses not within the perspective of the patient. The study suggests that further explorations are needed on the effects of empathic accurate responses of nurses
Ellington et al. (2012), USA Hospice nurse communication with patients with cancer and their family caregivers	To provide insight into in-home visits. Specifically, the pilot project aims were to: (1) test the feasibility of in-home audio-recording of interactions among hospice nurses, patients and families, (2) study the nature and content of communication during in-home hospice nurse visits and (3) assess the fit of a widely used communication coding system RIAS to hospice encounters	Descriptive pilot study using qualitative methods to analyse data coded with RIAS	Hospice Data gathered from 32 audio-recorded nurse-patient/family caregiver interactions Participants: 5 Nurses (5 females/0 male) 7 Patients (2 females/5 males)	In general, the nurses talked more during the recordings than patients and family caregivers. Nurses used questions in 8% of their talks and provided information advice mainly related to physical care. Their talk was also coded as partnership building (17%) and devoted to emotional responses (8%) and 4% of their statements reflected humour. A large proportion of lifestyle statements were found (23%). The patients were silent in 11 of the 32 visits. When they spoke, most talks concerned physical care information (31%) or lifestyle statements (19%). Some statements were about psychosocial information (6%), while few questions were asked by the patients (2%). The study concludes that audio-recorded home hospice nurse visits were feasible, and RIAS was suited to code content of the encounters. The findings showed a wide range of topics and emotions during nurse-patient/family caregiver conversations

TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Ellington et al. (2018), USA Communication among cancer patients, caregivers, and hospice nurses: Content, process and change over time	To describe communication of home hospice nurse visits to cancer patient-caregiver dyads, and to assess change in communication related to domains of care over the course of visits	Multi-site prospective observational longitudinal study using quantitative methods to analyse data coded with RIAS	Hospice Data gathered from 537 audio-recorded home hospice visits Participants: 58 Nurses (51 females/5 males/2 missing data) 101 Patients (40 females/60 males/1 missing)	In the conversations, 54% of the utterances were made by the nurses, 29% by the caregivers, and 17 by patients. The conversations predominantly focused on physical care. Home hospice conversations were predominantly focused on physical care, maintaining a relatively stable focus for the domains of physical and psychosocial/daily life care. A small decrease in emotional expressions was observed over time. Nurses often fail to recognize the critical role of caregivers and to address their concerns about patient care. The study suggests that nurses' communication strategies used could be developed to better support the family
Ernesäter et al. (2014), Sweden A comparison of calls subjected to a malpractice claim versus 'normal calls' within the Swedish healthcare direct: a case-control study	To compare communication patterns in calls subjected to a malpractice claim with matched controls	Case-control design using quantitative methods to analyse data coded with RIAS	Tele telenursing Data gathered from 52 audio-recorded telenursing calls (26 cases +26 matched controls) Participants: Nurses (numbers and sex NS) 52 Patients (20 females/32 males)	In all cases and controls the communication was slightly provider-driven, with a ratio of tele nurse/caller talk of 1.31 (SD 0.24) in the cases, versus a ratio of 1.28 (SD 0.30) in the controls ($p = 0.424$). Statistically significant differences were found between the cases and controls: tele nurses used fewer open-ended medical questions in the cases compared with controls; callers provided tele nurses with more medical information in the controls compared with the cases and tele nurses used more facilitation and patient activation activities in controls, e.g. back-channel responses. In the malpractice-claimed calls, the nurses used closed-ended questioning to a larger extent than in control calls, where more open-ended questions and back-channel responses were used. Such responses, e.g. open-ended questions of back-channelling allowed for richer medical descriptions and more information from callers. The study concludes that these communicative techniques are important
Ernesäter et al. (2016), Sweden Telephone nurses' communication and response to callers' concern—a mixed methods study	To describe telephone nurses' and callers' communication, investigate relationships within the dyad and explore telephone nurses' direct response to callers' expressions of concern	An exploratory, descriptive and correlational design with a mixed-methods approach, data coded with RIAS and content analysis	Tele telenursing Data gathered from 25 audio-recorded telenursing calls Participants: 21 Nurses (21 females/0 male) 25 Patients (14 females/11 males)	Tables and text The analysis of the 25 calls found that the telephone nurses made more utterances than the callers, 1439 compared with 1209. During the calls, the nurses mainly asked closed-ended medical questions, and they mainly responded to concern with closed-ended medical questions while exploration of callers' reasons for concern was sparse. The study concludes that the nurses' reluctance to use open-ended questions and to follow up on callers' understanding might be a threat to concordance and a potential threat to patient safety
Fakhr-Movahedi et al. (2011), Iran A qualitative content analysis of nurse-patient communication in Iranian nursing	To explore cultural and contextual factors influencing nurse-patient communication according to lived experiences of Iranian nurses and patients	Qualitative study using grounded theory	Hospital Data gathered from interviews and observations Participants: 8 Nurses (all females) 9 Patients (4 females/5 males)	All nurses believed that communication with patients was important. They strived to support and meet the patients' needs. The Nurse-patient communication was influenced by factors such as physician orders and administrative demands, and the nurses communicated with patients unsystematically, according to patients' requests and needs. The present study findings implied that despite the nurses' beliefs in the importance of nurse-patient communication, in practice the role was not running well because of structural and socio-cultural factors

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TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Finset et al. (2013), Norway	To investigate how patient, clinician and relationship characteristics may predict how oncologists and nurses respond to patients' emotional expressions	Observational study data coded with the VR-CoDES	Cancer care Data gathered from audio-recorded nurse/physician-patient consultations Participants: 19 Nurses (17 females/2 males) 5 oncologists (1 female/4 males) Patients (numbers and sex NS)	During the consultations, the patients expressed 471 cues and 109 concerns. The nurses were five times more likely to provide space for further disclosure of cues and concerns (according to VR-CoDES definitions) than oncologists in outpatient follow-up consultations were. Nurses gave room for further disclosure to explicit concerns and nurse-initiated cues/concerns, but the effects were smaller than for oncologists
Gordon et al. (2009), UK	To explore how nursing staff and patients with aphasia or dysarthria communicate with each other in natural interactions on a specialist stroke ward	Observational study using conversation analysis	Stroke unit Data gathered from 35.5 h of video recordings and field notes Participants: 14 Nurses (sex NS) 5 Patients (2 females/3 males)	In this study, the nursing staff started 88% ($n = 20$) of the opening sequences analysed and 44% of the interactions were related to a nursing task. Five openings (19%) appeared to be 'social' in nature, and not task oriented. Overall, the interactions were asymmetric, with very limited patient contributions. The nursing staff controlled the conversations by choosing the topic and flow of conversations, and patient participation was limited. This study concludes that overall, the nursing staff controlled the conversations around nursing tasks
Hafskjold et al. (2017), Norway	To describe nursing staff's responses to older people's emotional distress, and identify factors that encourage further emotional disclosure	Observational study coding data with the VR-CoDES	Home care visits Data gathered from 196 nurse-patient home care visits Participants: 16 Nurses (12 females/4 males) 17 Nurse assistants (15 females/2 males) 48 Patients (37 females/11 males)	During audio-recorded home care visits, 635 expressions of emotional distress among older people were coded. In 48% of nursing staff responses, the content was emotion focused. Expressions with explicit reference to emotion most frequently received emotion-focused responses (60%), whereas more implicit emotions mostly received non-emotion-focused responses (59%). The study concludes that emotion-focused responses by nurses were promoted when nursing staff elicited the emotional expression, and when the patient expression referred to an explicit emotion
Hakimnia et al. (2014), Sweden	To explore the communication between telenurses and callers in authentic calls to SHD 1177	Descriptive qualitative study	Tele nursing Data gathered from 20 audio-recorded calls Participants: 11 Nurses (10 females/1 male) 20 Patients (13 females/7 males)	The analysis revealed five types of calls: a gatekeeping call, a gendered call, a call marked by impersonal traits, a call with voices of the life world and a counter-discourse call. The dominating patterns in the calls were of gatekeeping and biomedical character. The study concludes that awareness of gender biases and knowledge about callers' different resources to be heard, can improve the inequality in the communication between telenurse and callers
Heyn (2013), Norway	To examine the impact of an interactive tailored patient assessment (Choice) on communication of emotional cues and concerns expressed by cancer patients in terms of source of initiation of cues/concern, explicitness, timing during the consultation and consultation type (inpatient/outpatient)	Quasi-experimental quantitative	Hospital, Cancer care Data gathered from 196 audio-recorded cancer consultation Participants: 196 Patients (63 females/133 males) 24 clinicians: 19 Nurses (17 females/2 males)	A total of 471 cues and 109 concerns in clinician-patient consultations ($n = 196$), with a majority of patient-elicited utterances. Almost half of the utterances of cues and concerns were categorized as hints, and there were more often descriptive cues in the intervention group than in the control group, especially if elicited by the patients. Nurse and patient communication: Cues (78.9%) and concerns (21.1%) were common in consultations with nurses. Patients expressed more descriptive cues and concerns to nurses than to physicians. More utterances were initiated by patients (61.3%) than by nurses (38.7%). Nurses were often provided with explicit responses to patients' cues/concerns and provided space for further disclosure

TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Heyn et al. (2011), Norway Effects of an interactive tailored patient assessment tool on eliciting and responding to cancer patients' cues and concerns in clinical consultations with physicians and nurses	To test the effect of Choice, an interactive tailored patient assessment tool (ITPA), on cancer patients' expressed cues and concerns (C&Cs) and clinicians' concerns	Quasi-experimental Quantitative	Hospital, Cancer care Data gathered from 196 audio-recorded cancer consultations Participants: 196 patients (63 females/133 males) 24 clinicians: 19 Nurses (17 females/2 males)	A total of 473 cues and 109 concerns were coded with more utterances of cues/concerns in the intervention compared with the control group and in consultations with nurses. Significant differences in the type of response were found between clinicians, where nurses significantly more often provided responses that produced space for further disclosure of patients' cues/concerns compared with physicians.
Högländer et al. (2017), Sweden Registered Nurses' and nurse assistants' responses to older persons' expressions of emotional needs in home care	To explore nurse assistants' and registered nurses' responses to older persons' expressions of emotional needs during home care visits	Descriptive, cross-sectional study Data coded with VR-CoDES	Home care visits Data gathered from 188 nurse/nurse assistant-patients home care visits Participants: 11 Nurses (8 females/3 males) 20 Nurse assistants (12 females/8 males) 44 Patients (29 females/15 males)	NAs' and RNs' responses to older persons' emotional concerns, coded with the VR-CoDES. A total of 121 responses by RNs were found. Most of the RN responses were non-explicit ($n = 92.2\%$) and provided space (78.5%) for further disclosure. Responses less frequently reduced space (21.5%). Examples of such responses are given in the text. RN responses were mainly non-explicit responses providing space for older persons to talk more about their emotional concerns
James et al. (2020), Australia Nonverbal communication between registered nurses and patients during chronic disease management consultations: Observations from general practice	To explore nonverbal communication behaviours between general practice nurses and patients during chronic disease consultations	Observational study	Video recordings of 36 nurse-patient consultations at general practices. 14 GPN (general practitioner nurses, all females) 36 patients (20 females/16 males)	Joint convergence of nurse-patient behaviours and non-verbal communication was found. The most common was laughing, smiling and eye contact. The findings point to nurses supporting patients through non-verbal communication. Symmetrical and asymmetrical communication was present in the consultations
Jansen et al. (2009), the Netherlands Emotional and informational patient cues: The impact of nurses' responses on recall	To investigate older cancer patients' informational and emotional cues, how nurses respond to these cues and the effect of cues and responses on patients' information recall	Quantitative, Cross-sectional and explorative MIARS	10 Hospitals, cancer care. Video-recorded consultations and questionnaires. 105 patients (34 females/71 males) Nurses (NS)	Patients gave more informational than emotional cues. The most frequent response to emotional cues was distancing followed by acknowledgement. Nurses gave appropriate information in response to most informational cues. Patients' expressions of emotional or informational cues did not influence recall; neither did nurses' responses to informational cues. Responses to emotional cues did affect recall. The more nurses responded by giving 'minimal' encouragements (e.g. 'Hmmm'), the more patients recalled, while distancing responses (e.g. switching focus) were associated with lower recall scores. A common response to emotional cues was distancing (35.8%) followed by acknowledgement (29.5%). How the nurses responded to emotional cues influenced patient recall (remembering information) whereas distancing responses negatively influenced the recall (remembering less)

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TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Johnsson, Boman, et al. (2018), Sweden Voices used by nurses when communicating with patients and relatives in a department of medicine for older people—An ethnographic study	To describe how nurses communicate with older patients and their relatives in a department of medicine for older people in western Sweden	Ethnographic and qualitative design informed by the sociocultural perspective	Department of medicine for older persons Data gathered from 135 h of observed nurse–patient relative interaction Field notes 40 informal field conversations with nurses Participants: 24 Nurses (sex NS) 40 Patients (sex NS)	The results describe how nurses communicated with four different voices: a medical voice; a nursing voice; a pedagogical voice and a power voice. The voices were context dependent, and the nurses switched between different voices when changing focus. When nurses can combine their voices in a successful way, and by limiting the power voice, the communication could become more positive for all involved. A successful combination of voices was described to facilitate good nurse–patient–relative communication. To improve patient care and health outcomes the communication used is important for relationship building
Johnsson, Wagman, et al. (2018), Sweden What are they talking about? Content of the communication exchanges between nurses, patients and relatives in a department of medicine for older people—An ethnographic study	To explore and describe the content of the communication exchanges between nurses, patients and their relatives in a department of medicine for older people in western Sweden	Ethnographic and qualitative design informed by the sociocultural perspective	Department of medicine for older persons Data gathered from 135 h of observed nurse–patient relative interaction Field notes 40 informal field conversations with nurses Participants: 24 Nurses (sex NS) 40 Patients (sex NS)	Three categories of the content of the communication were described, that was: medical with focus on the patient's medical condition, personal content with focus on the individual patient's life situation and explanatory content related to patient's health and needs. The study concludes that nurses need to be aware of the importance of the communication content and the importance of asking questions. The content used by the nurses in the communication could help enable a more holistic view and facilitate person-centred care
Kettunen et al. (2000), Finland Communicator styles of hospital patients during nurse–patient counselling	To answer the question of what kind of communicator the Finnish patient is during counselling sessions with a nurse in a hospital	Descriptive qualitative	Hospital Data were gathered from 38 videotaped and transcribed health counselling sessions and interviews with nurses and patients. Participants: 19 Nurses (18 females/1 male) 38 Patients (24 females/14 males)	The study describes seven communicator styles used by patients: Quietly Assenting, Emotionally Expressive, Storyteller, Stoic Observer, Inquisitive of Detail, Dominant and Critical Self-observer. The communicator styles indicated the ways in which patients participated. Even though the nurses were flexible, a strong tendency was observed that the nurses directed the conversation in a stereotypical manner that restricted the speech of the patient

TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Kettunen et al. (2003), Finland Speech practices that facilitate patient participation in health counselling—A way to empowerment?	Aimed at a description of nurses' speech practices that facilitated the inclusion of patients' perspectives and preferences and encouraged patients to express themselves	Qualitative CA	Hospital Data were gathered from 38 video recordings of health counselling at 7 wards. Participants: 19 nurses (18 females/1 male) 38 patients (24 females/14 males)	Affective questions and tentative speech, together with continuers, facilitated active participation by patients. Thus, patients were free to discuss their ideas, concerns, experiences and knowledge with nurses. The findings indicated that nurses were able to establish collaboration and involve patients in their frame of reference. Nurses' affective questions were something that manifested empowering acts from the nurses. Affective questions related to patients' perspectives and views, deal with feelings, experiences, and concerns, participation, options to choose topics and providing space for their wishes, hence empowering the patient. Patient participation was facilitated when the nurses used affective questions, tentative speech and continuers. In conversations where the nurses allowed patients to freely discuss their experiences, concerns, and views, they were able to establish collaboration and involve patients. The study concludes that conversations that emphasized partnership and social and emotional talk were important, and the study advances professional understanding of the patient-centred empowering practice
Kettunen et al. (2006), Finland Lifestyle counselling in type 2 diabetes prevention: A case study of a nurse's communication activity to produce change talk	To investigate the construction of change talk: how a nurse initiated change talk, how it was received by a patient, and what communication activity produced change talk	Qualitative Case study Influences by CA	Primary health Data were gathered from 8 video recordings of counselling sessions with the same dyad (nurse and patient). Participants: 1 nurse (female) 1 patient (female)	Change talk was described based on three categories: rejected, restrictive and expansive change talk. Overall, the nurse's communication was interpreted as patient-centred, when not using change talk that interrupted our inhabited patient's talk. Maintaining professional authority at the same time as having a patient perspective could be a dilemma. Change talk could be demanding and was best produced when the nurses focused on the patient's view
Kim et al. (2001), Indonesia Client communication behaviors with health care providers in Indonesia	To analyse determinants of active communication in Indonesia to devise client education and provider training interventions to encourage active client communication	Descriptive, cross-sectional study. Data coded with RIAS	Family planning consultations Data gathered from 1203 audiotaped consultations Participants: 201 service providers (all females) 18 Nurses 183 midwives 1203 Parents (1201 females/2 males)	Results describe culturally acceptable ways for the clients' communication during family planning consultations. These included asking questions, requesting clarification, stating opinions and expressing concerns. In this study, client active communication was found to be associated with the providers' information giving, providers' facilitative communication, providers' expressions of negative emotion, client educational level and province
Lam et al. (2020), China Factors affecting the levels of satisfaction with nurse–patient communication among oncology patients	To investigate the factor's influencing the level of satisfaction with nurse–patient communication among oncology patients during their daily routine procedures	Observational design	Oncology Data were gathered from observations (n = 110) from two wards 25 RN (21 females/4 males) 94 patients (47 females/47 males)	The most common positive nonverbal cues used by nurses during routine care were visual contact (80.2%) and proximity (75.2%), and for patients visual contact (82.2%) and maintaining attention (63.4%) were common. Negative nonverbal cues, such as ignoring, were rarely seen in nurses

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TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Linn et al. (2020), the Netherlands Talking about Dr. Google: Communication strategies used by nurse practitioners and patients with inflammatory bowel disease in the Netherlands to discuss online health information	To explore how patients with Inflammatory Bowel Disease (IBD) and nurse practitioners (NPs) in the Netherlands communicate about online health information-seeking	Descriptive design using a qualitative Grounded theory method	Discussion about online health information-seeking Data gathered from 58 consultations, including 87 relevant sequences/segments Participants: 8 Nurse Practitioners (8 females/0 male)	The discussion about online health seeking was equally initiated by patients and nurses. The results indicate that the internet is becoming integrated in communication during consultations with patients. In these conversations, the nurses used a patient-centred approach and responded by taking patients' online health information-seeking seriously or affirming their beliefs
Lotzkar and Bottorff (2001), Canada An observational study of the development of a nurse-patient relationship	To identify features of nurse-patient interactions (NPI) in the development of a nurse-patient relationship (NPR)	Descriptive study using qualitative ethnological methods	Cancer treatment unit Data gathered from 60 videotaped nurse-patient interactions sequences from 8 patients being continuously videotaped for 72 h Participants: Nurses (numbers and sex NS) 8 Patients (sex NS)	The findings describe the active and complementary roles of nurses and patients when developing a nurse-patient relationship. Moreover, the results highlight the contribution of social exchange, trust and humour in the relationship. Continuity of nursing care is reported as important for relationship building
Macdonald et al. (2013), New Zealand Nurse-patient communication in primary care diabetes management: an exploratory study	To examine the actual talk and perspectives of nurses and patients who were newly diagnosed with diabetes to describe the features of effective interaction and to identify areas for reflection and possible improvements to practice	Descriptive case study using qualitative content analysis	Diabetes care Data gathered from 35 videotaped nurse-patient interactions Participants: 10 Nurses (sex NS) 18 Patients (10 females/8 males)	In this study, the consultations with nurses commonly involved the completion of checklists, physical examination, referral to other health professionals and distribution of written material. The nurses' consultations were commonly longer than consultations with other professionals. The consultations were based on the nurses' clinical agenda more than the patient's perspective. The protocols and checklists used by the nurses both help and hinder communication
Mallett and AHern (1996), England Comparative distribution and use of humour within nurse-patient communication	To describe the frequency, distribution and use of humorous instances occurring within haemodialysis sessions	Ethnomethodological ethnography using conversation analysis	Haemodialysis care Data gathered from video recordings Participants: Nurses (numbers and sex NS) 5 Patients (2 females/3 males)	Findings describe that the amount and proportion of humour from the patients varied. The findings indicate that humour may be an important facilitator for nurse-patient communication
Manias and Williams (2007), Australia Communication between patients with chronic kidney disease and nurses about managing pain in the acute hospital setting	To examine communication between patients with chronic kidney disease and nurses about managing pain in the acute hospital setting	A single group, non-comparative design using qualitative data analysis	Acute hospital settings involving patients with chronic kidney disease Data gathered from observations for 52 h involving 103 incidents of pain communication and interviews Participants: 14 Nurses (12 females/2 males) 53 Patients (19 females/34 males)	The findings describe three themes: complexity of pain, knowledge about pain management, and contextual characteristics of the renal units. The complexity of pain involved the nature of pain and the effects of analgesics on the body. Difficulties to manage pain were related to various causes of the pain. The context involved a perceived urgency of pain communication and environmental stressors

TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Mulder et al. (2014), the Netherlands Quality assessment of practice nurse communication with type 2 diabetes patients	To assess if, and how, nurses applied the five key elements of self-management support in standard care	An observational study	Primary care Data gathered from tape-recorded nurse-patient consultations Participants: 7 Nurses (6 females/1 male) 66 Patients (28 females/38 males)	Nurses usually used assessed current health behaviours and follow-up consultations. The care contained discussions on health behaviours and in less than half of the consultations, the patients got advice to change dietary or physical activity behaviours. Conclusions were that nurses' communication can benefit from using standardized assessments of health behaviours and beliefs as a foundation to support and give advice
O'Baugh et al. (2009), Australia Investigation into the communication that takes place between nurses and patients during chemotherapy	To explore the verbal and nonverbal communication that occurs between cancer patients and nurses during chemotherapy administration	Qualitative, descriptive approach	Cancer patients during chemotherapy Data gathered from 8 video-recorded nurse-patient conversations Participants: 6 Nurses (5 females/1 male) 8 Patients (3 females/5 males)	It was common to first provide an overview of the steps that they would follow in the communication. A major amount of the nurses' communication is concerned with conveying information to support patients practically and psychologically. The conversations had the main focus on procedure focused and they rarely clarified patients' doubts. Nonverbal communication involved looking, touching, movements and emotions. The nurses were efficient in their communication regarding physical and medical areas but could hesitate to address and discuss emotional issues
Oguchi et al. (2011), Australia Measuring the impact of nurse cue-response behaviour on cancer patients' emotional cues	To explore the impact of nurse responses to patients' and family members' emotional cues and concerns during the chemotherapy education consultation	Quantitative, Explorative and cross-sectional VR-CoDES	Hospitals Data gathered from audio-recorded education sessions in chemotherapy Participants: 51 patients (30 females/21 males) 13 nurses (7 females/6 males) Family members	Both patients and family members were reported to express cues and concerns during consultations, even if most cues and concerns were expressed by patients. In a third of the answers, 35%, the nurses responded by providing space. Responses from the nurses that provided space for further disclosure were significantly associated with a decrease in patient expressions of cues and concerns
Oliver et al. (2019), USA Behind the doors of home hospice patients: A secondary qualitative analysis of hospice nurse communication with patients and families	To examine the use of validation communication techniques by hospice nurses during home visits to patients and their family caregivers	Qualitative content analysis	Home hospice visits by nurses Data gathered from 65 hospice nurse visits Participants: 65 Nurses (59 females/6 males) 8 Patients (3 females/5 males)	The nurses used validation communication techniques. For example, paying attention, reflecting back, reading minds, understanding the context, recognizing the valid and showing equality. This occurred at least once during each visit. Findings suggest that nurses use validation techniques in their communication with patients and family caregivers. The use of basic techniques is common and the use of more complex forms of validation is rare
Pettersson et al. (2018), Sweden Prepared for surgery—Communication in nurses' preoperative consultations with patients undergoing surgery for colorectal cancer after a person-centred intervention	To describe preoperative communication after a person-centred intervention in nurses' consultations with patients undergoing surgery for CRC	An explorative quantitative and qualitative design	Surgery Data gathered from audio-taped nurse-patient consultations Participants: 10 Nurses (9 females/1 male) 18 Patients (6 females/12 males)	During the consultations, the nurses talked and introduced new topics: Preparation before surgery, Discovery, Tumour, Operation, Recovery after surgery, and Thrombo-prophylaxis. They used two different approaches to communicating: Talking to and talking with the patient, the latter could be seen as person-centred communication. Talking with patients instead of talking to them, may contribute to increasing the patient's understanding. The use of an open question can contribute to patients' participation and a dialogue between nurses and patients

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Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Prip et al. (2019), Denmark Observations of the communication practices between nurses and patients in an oncology outpatient clinic. Annica	To explore communication between nurses and patients undergoing chemotherapy in an outpatient clinic to gain insight into how patients are supported	Qualitative inductive approach using thematic analysis	Oncology outpatient clinic Data gathered from 70 h of participant observations Participants: Nurses (numbers and sex NS) Patients (numbers and sex NS)	Three main themes were identified: treatment-centred communication, efficient communication and spatially bound communication. The communication was characterized by the content that was focused on the treatment. The aspects of existential, psychosocial and sexual concerns were rarely explored
Roche and Jones (2021), UK A qualitative study of nurse–patient communication and information provision during surgical pre-admission clinics	To explore patient and nursing perspectives of information provision in the pre-admission element of an Enhanced Recovery After Surgery programme, an evidence-based approach implemented to improve the quality of surgical care	Qualitative	Outpatient clinics and hospital wards for surgery Data were gathered from a total of 18 h of recorded observations of pre-admissions at 11 outpatient clinics and 42 semi-structured interviews at three hospital wards. 21 patients (10 females/11 males) 21 Registered nurses (17 females/4 males)	Patients' information needs were not satisfied when RNs sometimes were unwilling or unable to answer questions and provide information. Sometimes the patients were not receptive to the information and had difficulty understanding it
Reblin et al. (2016), USA Caregiver, patient and nurse visit communication patterns in cancer home hospice	To identify common patterns of communication in home hospice nurse–patient caregiver home hospice visits and to identify nurse, caregiver–patient dyad and visit characteristics that predict visit communication patterns	Qualitative, data coded with RIAS	Hospice Data gathered from audio-recorded nurse–patient visits Participants: 58 Nurses (51 females/5 males/2 missing) 101 Patients (40 females/60 males/1 missing)	Six communication patterns occurred in two perspectives: (1) who interacts most with the nurse (patient, caregiver, or dyad) and (2) the relatively high or low expressions of distress during the visit. The result contributes to how to organize triadic communication patterns in cancer home hospice visits
Sandhu et al. (2009), UK Emergency nurse practitioners and doctors consulting with patients in an emergency department: a comparison of communication skills and satisfaction	To compare the content of, and satisfaction with, consultations made with patients presenting with problems of low acuity to an ED	Qualitative and quantitative	Emergency department Data gathered from video-recorded consultations (n = 296) Participants: 6 Nurses (4 females/2 males) 46 Patients (24 females/22 males)	The nurses focused on patient education and counselling medical condition, or therapeutic regimen compared with the doctors. There were no significant differences in consultation length. The nurses had higher levels of overall self-satisfaction regarding the consultations than doctors. Patient satisfaction was significantly related to building a relationship in their talks
Sayah et al. (2014), Canada Health Literacy and Nurses' Communication with Type 2 Diabetes Patients in Primary Care Settings	To examine the application of interactive communication loops, use of jargon and the impact of health literacy (HL) when nurses provide education and counselling to patients with type 2 diabetes in the primary care setting in Alberta, Canada	Exploratory, Qualitative study with a cross-sectional design using discourse analysis	Primary care, diabetes. Data gathered from audio recordings and a survey Participants: 9 nurses—all females 36 patients (21 females/15 males)	The complete communication loop could be noted in 11% of the talks. Most common were to clarify health information (58%) and repeating health information (33%). 81% never used to check understanding and 42% never asked for understanding. 17% used medical jargon and mismatched language and 25% used respectively. Patients' HL did not affect patterns of communication regarding the use of communication loops. Nurses used less jargon and mismatched words with patients with inadequate HL

TABLE 1 (Continued)

Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Siouta et al. (2019), UK Communicative constructions of person-centred and non-person-centred caring in nurse-led consultations	To examine whether and how person-centred caring is constructed verbally in the ongoing communication in consultations between patients with cancer and nurses at nurse-led chemotherapy outpatient clinics	Qualitative	Cancer care Data gathered from 45 audio-recorded nurse-patient consultations and interviews Participants: 13 Nurses (13 females/0 male) 45 Patients (25 females/20 males)	The major discourse was non-person-centred oriented. The alternative discourse person-oriented related to the patient's personal and sociocultural context was identified and showed that nurses could develop a person-centred approach to consultation. They also replicated a traditional biomedical model. The result showed 5 themes: Discursive approaches to the start of the consultation, Discursive approaches to talking about side-effects, Discursive approaches to patient education, Discursive approaches to feelings, worries and concerns, and Discursive approaches to decision making. It's important to give the person the chance to learn and become the one that's competent to make his/her own decisions
Sundler et al. (2020), Sweden Attributes of person-centred communication: A qualitative exploration of communication with older persons in home health care	To explore attributes of person-centred communication between nurses and older persons being cared for in their home	A descriptive study with a qualitative approach	Home health care Data gathered from 77 audio recordings of nurse-patient communication Participants: 11 Nurses (8 females/3 males) 37 Patients (29 females/8 males)	Person-centred communication was related to approaches that recognize, invite and involve the person. The RNs facilitated mutual interaction and a deep relationship with the person. Attentive communication is important to facilitate person-centred care. The care requires communication skills that make it possible to recognize, invite and involve the person
Uitterhoeve et al. (2009), the Netherlands Nurse-patient communication in cancer care: does responding to patient's cues predict patient satisfaction with communication	To investigate the relationship between nurses' cue-responding behaviour and patient satisfaction	Quantitative, Explorative (cross-sectional) MIARS	Hospital Data were gathered from 100 video-recorded conversations. Participants: 34 nurses (28 females/6 males) 100 patients (45 females/55 males)	Nurses' cue responding was independently related to patient satisfaction. Patients with palliative treatment had higher satisfaction regarding communication than the patients that were curatively treated. 70% of cues signalled worry or concern, 24% of cues mentioned worry or concern, and 6% expressed unpleasant emotion. Nurses explored 21% of the cues per conversation. 24% were acknowledged and 55% had a response using distancing behaviour.
Wakefield et al. (2008), USA Nurse and patient communication profiles in a home-based telehealth intervention for heart failure management	To compare differences in nurse and patient communication profiles between two telehealth modes: telephone and videophone, and evaluated longitudinal changes in communication, nurse perceptions and patient satisfaction	Randomized controlled clinical trial, data coded with RIAS	Home-based heart failure care Data gathered from recordings of two telehealth modes: telephone and videophone Participants: 3 Nurses (3 females/0 male) 28 Patients (0 female/28 males)	There were no significant demographic differences between the telephone and videophone groups. The nurses have a high degree of utterances related to the categories of Data gathering, Building a relationship and Activating and partnership building. The highest number of utterances appeared in the Building a relationship category. Nurses commonly used open-ended questions, back-channel responses, friendly jokes and checks to try to increase their understanding on the telephone than on the videophone. To give compliments and build partnerships were less frequently used by the nurses compared with the videophone. On the telephone they more often gave lifestyle information and approval comments, and, on the videophone, it was more common to use closed-ended questions

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Author/year/country	Aim	Methods/study design	Setting and sample	Findings/Conclusion
Weber et al. (2007), Schweiz Communication during ward rounds in Internal Medicine: an analysis of patient–nurse–physician interactions using RIAS	To describe the content and mode of patient–physician–nurse interactions during ward rounds in Internal Medicine	Randomized study, quantitative, data coded with RIAS	Hospital—Ward rounds on Internal Medicine units Data gathered from tape- recorded ward rounds Participants: 13 Nurses (12 females/1 male) 59 Patients (33 females/26 males) 8 physicians (3 females/5 males)	Less than 5% of the nurses and physicians used utterances that focused on lifestyle information or psychosocial topics. All participants used closed questions more often than open questions. Nurses asked 1 open question concerning lifestyle and they did not use questions regarding psychosocial content or patients' feelings

Abbreviations: MIARS, the Medical Interview Aural Rating Scale; NS, not state; RIAS, Roter Interaction Analysis System; VR-CoDES, the Verona Coding Definitions of Emotional Sequences.

also differences in how communication was expressed, that is, verbal or non-verbal communication.

The topic for the communication varied, often depending on the situation or context of care. RNs' communication could also be influenced by structural and sociocultural factors (Fakhr-Movahedi et al., 2011). The communication could have a wide range of topics, for instance, related to information regarding illnesses or procedures (Efraimsson et al., 2015; O'Baugh et al., 2009; Pettersson et al., 2018; Roche & Jones, 2021), medical or therapeutic regimens (Carlsson & Pettersson, 2018; Drevenhorn et al., 2001; Duxbury et al., 2010; Hakimnia et al., 2014; Johnsson, Boman, et al., 2018; Kim et al., 2001; Manias & Williams, 2007; Mulder et al., 2014; Pettersson et al., 2018; Sandhu et al., 2009; Sayah et al., 2014) or non-pharmacological topics, such as diet and physical activity (Drevenhorn et al., 2001; Mulder et al., 2014; Sayah et al., 2014) and health behaviours (Mulder et al., 2014). Psychosocial or socioemotional content was also common (Drevenhorn et al., 2001; Pettersson et al., 2018) involving small talk (de Leeuw et al., 2014; Sundler et al., 2020) and building relationships with the patients (Sandhu et al., 2009).

Different communication styles were used when talking with patients, such as medical, nursing, pedagogical or power styles (Johnsson, Boman, et al., 2018). RNs also used attentive and conforming communication, with active listening and open-ended questions (Oliver et al., 2019; Pettersson et al., 2018; Sundler et al., 2020). When asking open-ended questions, RNs received more detailed descriptions and information from patients (Ernesäter et al., 2014). In addition, communication loops were used as a strategy for clarifying and repeating information while checking for understanding (Sayah et al., 2014). Giving more space for further exploration was another strategy to explore the specific patient's needs and problems (Collins, 2005; Duxbury et al., 2010; Finset et al., 2013; Heyn et al., 2013, 2011; Högländer et al., 2017; Oguchi et al., 2011). Other communication strategies involved the use of back channelling, friendly jokes, checks for understanding, compliments and partnership building (Johnsson, Boman, et al., 2018; Kim et al., 2001; Oliver et al., 2019; Wakefield et al., 2008). RNs also validated the patient's expression by showing understanding (Eide, Sibbern, Egeland, et al., 2011; Eide, Sibbern, & Johannessen, 2011; Kettunen et al., 2003; Oliver et al., 2019).

Non-verbal communication, such as eye contact, touching, movements, affirming nods, attitude and showing emotions, were often used (Duxbury et al., 2010; Eide, Sibbern, Egeland, et al., 2011; Eide, Sibbern, & Johannessen, 2011; James et al., 2020; Johnsson, Boman, et al., 2018; Lam et al., 2020; O'Baugh et al., 2009). RNs' non-verbal communication with patients can aid in communicating care and concern, such as demonstrating friendship (Johnsson, Boman, et al., 2018; O'Baugh et al., 2009; Sundler et al., 2020), warmth and empathy (Duxbury et al., 2010; Eide, Sibbern, Egeland, et al., 2011; Eide, Sibbern, & Johannessen, 2011).

Patient-centred communication strategies were also reported (Berry, 2009; Pettersson et al., 2018; Sundler et al., 2020), with RNs

inviting, involving and recognizing patients during communication, and encouraging them to narrate their experiences (Pettersson et al., 2018; Sundler et al., 2020), focusing on their emotions (Hafskjold et al., 2017) and facilitating a mutual interaction (Sundler et al., 2020). Patient-centred communication was more personal and focused on the individual patient's perspective of their situation and everyday life (Johnsson, Wagman, et al., 2018; Collins, 2005). However, social conversation and partnership building were sometimes less frequently used (Berry, 2009).

There were examples of communication that did not include active listening or confirming the patient (Kettunen et al., 2006; Pettersson et al., 2018), with these examples focusing on closed-ended questions and providing information (Duxbury et al., 2010; Efraimsson et al., 2015; Ernesäter et al., 2014, 2016; Pettersson et al., 2018), or RNs not asking for the patient's view or acceptance (Duxbury et al., 2010). Sometimes, RNs also ignored topics posed by the patient (Eide, Sibbern, Egeland, et al., 2011; Eide, Sibbern, & Johannessen, 2011; Johnsson, Boman, et al., 2018) or distanced themselves during communication (de Leeuw et al., 2014; Jansen et al., 2009; Johnsson, Boman, et al., 2018; Uitterhoeve et al., 2009). RNs sometimes used one-way communication and provided instructions, often based on themselves as experts on the topic (Carlsson & Pettersson, 2018) and restricted the speech of the patient (Kettunen et al., 2006, 2000). Sometimes RNs used medical jargon with the risk that RN-patient communication became unclear (Sayah et al., 2014).

4.3.3 | The content of patient communication

Fewer studies were reporting on patients' communication, with a focus on patients' expressions of concerns and the content of the patient communication. Patients used different communication styles and their communication were affected by the RNs' communication.

Studies showed that the content of patients' communication with RNs included questions regarding medical issues, such as medications, medical examinations or symptoms (Drevenhorn et al., 2001; Kim et al., 2001), lifestyle issues (Wakefield et al., 2008), social talk (Kim et al., 2001), emotional cues (Eide, Sibbern, Egeland, et al., 2011; Finset et al., 2013; Heyn et al., 2011, 2013; Kettunen et al., 2000; Oguchi et al., 2011) or informational cues (Jansen et al., 2009).

Similar to RNs, the patients also used different communication styles, such as storyteller, quiet confirmer, stoic observer, emotional expressor, detail-oriented inquisitor, dominant participator or critical self-observer (Kettunen et al., 2000). Patients' participation during communication and their choice of communicative content or communication style were often affected by how the RNs communicated with them (Eide, Sibbern, Egeland, et al., 2011; Kettunen et al., 2000; Kim et al., 2001); for example, patient participation was affected by how RNs responded (Eide, Sibbern, Egeland, et al., 2011; Kettunen et al., 2000) or if they used professional terminology (Kettunen et al., 2000). Patients became more active when RNs expressed positive emotions, understanding or agreement and used small talk (Kim et al., 2001).

Patients often took the initiative to talk about emotional concerns (Eide, Sibbern, Egeland, et al., 2011; Heyn et al., 2013; Linn et al., 2020), and they sometimes used non-verbal cues (Heyn et al., 2013; Lam et al., 2020) and strategies, such as humour, when expressing difficulties or concerns (Mallett & A'Hern, 1996). However, some studies reported that patients avoided being explicit about their concerns with RNs (de Leeuw et al., 2014; Eide, Sibbern, Egeland, et al., 2011; Kettunen et al., 2000), whereas one study revealed that patients uttered more explicit concerns when talking to RNs who provided empathic responses, compared to RNs who did not (Eide, Sibbern, Egeland, et al., 2011).

5 | DISCUSSION

This study provides a state-of-the-art review, focused on empirical observational studies describing RN-patient real-time communication. This is considered an important area of research since a current review revealed relatively few articles on real-time RN-patient communication. The ecological validity in observational studies is considered high. Studies on real-time communication can contribute to knowledge gained directly from observations of communication and interactions, instead of retellings of experiences, for example, through interviews. Asking patients and RNs how they evaluate communication may not always reflect what happens in real life.

Although most of the studies focused on RN communication, including content and style, fewer studies focused on patient communication. The results further point to RN communication as being significant for interaction and relationship-building with patients, but few studies have revealed the influence of RN-patient communication on patient outcomes or patient safety. However, there are important differences between immediate, intermediate and long-term outcomes. The RN-patient communication is significant for immediate outcomes, for example, what happens in the interaction, which can be achieved by communication, and so do intermediate outcomes, such as medication adherence.

No explicit challenges regarding RNs' communication skills were reported in the results, which was surprising because, as previously stated, RNs are frontline healthcare professionals (Kaminsky et al., 2017) who often work independently and care for patients with complex conditions. Hence, it was expected that RNs would face high demands on their communication skills. Communication processes are also described as being complex (Parker et al., 2020), which would also be expected to challenge RNs' communication skills. However, it was observed that RNs could have poor abilities in answering questions or further exploring patients' doubts. There were also examples of RNs using a mixture of task-oriented and socioemotional communication, as well as RNs using different communication strategies based on situation or context, which may hint at some challenges and complexity of RN-patient communication. Research could benefit by making communication challenges more explicit or emphasizing the knowledge or skills needed by RNs to improve RN-patient communication. This may be related

to the complex nature of nursing, where challenges and shortcomings in communication and interaction may be related to how these phenomena often occur naturally during interventions and tasks, in contrast to physician–patient communication in, for example, consultations allowing for information exchanges under different circumstances.

The communication practice of nurses is still developing, and the studies in this review had a descriptive or exploratory nature to explore RN–patient communication. However, the results revealed no clear picture of the theoretical underpinnings of RN communication, and the integration of theories in the empirical studies was weak. Similar results were found by Fleischer et al. (2009), concluding that nursing theories were rarely used in studies on RN–patient communication. We propose the need for future utilization of empirical RN–patient communication research that is integrated with theory development of RNs' communication, the centring of patients' needs and communication as a core competence for nurses.

It was also found that communication and interaction were used interchangeably similar to the review by Fleischer et al. (2009). This is further supported by the communication theory provided by Watzlawick et al. (1967/2014), which states that all communication includes interaction and is described as a reciprocal and dyadic process that goes beyond a mere sender–receiver relationship.

The agenda for communication appears to be primarily set by RNs. The patients' communication styles were affected by how the RNs communicated. For example, patients used a more active communication style if RNs were positive, empathetic or prosocial. Moreover, the patient became more implicit and avoided explicit utterances when nurses were perceived as being less empathic in their communication. It is critical to provide space for patients to address their concerns and ask questions (Högländer et al., 2017). Communication is fundamental in nursing care; specifically, it is a critical starting point for understanding patients' needs and expectations (Caris-Verhallen et al., 1997). Proper and effective communication could demonstrate symmetry and build trust, which may help to facilitate patient-centred care. When integrating nursing tasks with the patients' views, more patient-centred styles of communication could be beneficial. Effective communication is emphasized to ensure high-quality care that supports and meets the patients' needs (Kwame & Petrucka, 2022).

RNs' communication with patients is often embedded in everyday activities (Högländer et al., 2020; McCabe, 2004; Sundler et al., 2016). Communication was closely linked to relationship building and socializing, and it must focus on more than just instrumental nursing tasks. Routinely, nurses may use more task-oriented communication, which may result in RNs missing opportunities for active listening and patient-initiated topics. However, patients may be vague or unclear in expressions of their concerns. Thus, the communication skills of RNs, such as active listening, being attentive and responding to implicit and explicit expressions during conversations with patients, are important in nursing.

This review focused on empirical studies of real-time RN–patient communication. Studies using, for instance, interviews were

excluded. Some of the included studies used participatory observations, even if most of the studies used direct observations, such as audio or video recordings. We argue that more studies of real-time communication using audio and video recordings are needed, as there may be gaps between what people report and recall in interviews about nursing care and how this care was delivered. There is a need for studies about RNs' real-time communication and how communication may hinder or facilitate quality and patient-centred care.

5.1 | Strengths and limitations

A strength of this review is the clearly defined inclusion of studies on RNs. Thus, this review adds to what is currently known about RN–patient communication and the methods and approaches that have been used within this field. However, the low number of articles that matched our inclusion criteria led to the decision to analyse articles regardless of context or situation, which made the analysis complex and the results broad. The results give an overview of the width and depth of observational research in nursing care and finding such a miscellaneous set of studies was an outcome in itself, which might indicate a less well-grounded field of research. A narrower inclusion could instead have resulted in an even fewer number of articles and risked excluding important research within this relatively unexplored research area.

The search strategy may have led to a limitation in eligible articles. Even if databases are perceived as being effective and efficient sources for literature searches, Whitemore and Knafl (2005) point out that an inconsistent search terminology or indexing problem may yield only a 50% search result. This became evident through the addition of articles from other sources that were not found in the initial database searches. However, the addition of articles through additional sources may be considered a strength that allowed for a more comprehensive literature search.

6 | CONCLUSION

This review gives an overview of the width and depth of observational studies on RN–patient communication research. The various set of studies in this area might indicate a less well-grounded field of research, with a need for further research. The relationship between RNs and patients is intertwined with communication, and communication will influence how an interaction develops. Hence, communication is a critical starting point for interaction and its development. It is important that RNs become aware of their communication styles and how their behaviour can affect the communication, otherwise, insensible and unreflective communication can lead to misunderstandings. RNs should understand the significance and meaning of the communication skills that they use, as well as how to facilitate patient-centred communication. The content and styles of communication revealed the use of different communication styles, as well as the fact that communication was multifaceted. Future research is needed on what communication skills are required for RNs to adapt

to different situations and circumstances. Further empirical studies and literature on RN–patient communication are also needed concerning how communication influences quality care, as well as common themes and phenomena within this research field that can be useful for the development of theoretical underpinnings of RN communication. There was a shortage of theoretical underpinnings for nursing-based communication in the reviewed articles, and few studies about patients' communication with RNs were found when conducting this review, thus indicating that further research is needed within these areas.

AUTHOR CONTRIBUTIONS

JH: Methodology, Investigation and Writing (preparation of the original draft, as well as reviewing and editing). IKH: Conceptualization, Methodology, Investigation and Writing (reviewing and editing). AL: Investigation and Writing (reviewing and editing). SVD: Writing (reviewing and editing). HE: Writing (reviewing and editing). AJ: Conceptualization, Methodology, Investigation and Writing (preparation of the original draft, as well as Reviewing and Editing).

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE [<http://www.icmje.org/recommendations/>]):

1. substantial contributions to conception and design, acquisition of data or analysis and interpretation of data;
2. drafting the article or revising it critically for important intellectual content.

CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

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