

A systematic review on the factors affecting effective communication between registered nurses and oncology adult patients in an inpatient setting

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Executive summary

Background Effective nurse-patient communication is essential in the development of therapeutic relationships and meeting the cognitive and affective needs of oncology patients. However, the emotional load in cancer nursing has made communication additionally challenging.

Objective This review aimed to establish the best available evidence regarding the factors affecting effective communication between registered nurses and adult oncology patients in inpatient setting.

Inclusion criteria

Types of participants This review considered studies that included registered nurses and inpatient oncology adults who were more than 21 years of age. This review considered studies carried out in inpatient settings, regardless of ward specialty, whilst active or palliative cancer treatments were administered.

Phenomena of interest This review considered the factors affecting effective communication between registered nurses and inpatient oncology adults.

Types of studies This review considered both quantitative (randomized controlled trials, non-randomized controlled trials, before and after studies, cohort observational, descriptive survey and mixed method studies) and qualitative (including, but not limited to, phenomenology, grounded theory and ethnography) research studies on the factors

affecting effective communication between registered nurses and inpatient oncology adults.

Search strategy The search strategy aimed to find studies published in English language and not limited by year of publication. A three-step search strategy was utilized in each component of this review. The grey literature was not included in this review.

Data extraction Quantitative data were extracted using standardized data extraction tools adapted from the Joanna Briggs Institute-Meta Analysis of Statistics Assessment and Review Instrument (JBI-MAStARI). Qualitative data were extracted using the standardized data extraction tool from the Joanna Briggs Institute-Qualitative Assessment and Review Instrument (JBI-QARI).

Data analysis Quantitative data were presented in a narrative summary. Qualitative findings were categorised using JBI-QARI tool to generate synthesised findings.

Results One quantitative, two mixed method and four qualitative studies were included in this review. Combined findings of the narrative summary and meta-synthesis identified promoting and inhibiting factors in the characteristics of nurses, patients, and the environment. Promoting factors in nurses included genuineness, competency and supportive facilitation skills. However, the role of post-basic training in improving communication remained inconsistent. In patients, active participation in their own care and information-seeking behaviour promoted nurse-patient communication. Conversely, inhibiting factors in nurses included task orientation, fear of own death and low self-awareness of own verbal behaviours. Nurses also communicated less effectively during psychological assessments and emotionally-charged situations. For patients, their unwillingness to discuss the disease/feelings, their preference to seek emotional support from family and friends and the use of implicit cues inhibited effective communication. Environmentally, a supportive ward environment increased the use of facilitative behaviour in nurses, whereas the existence of conflict among staff increased the use of blocking behaviours. Cultural norms in the Chinese society also inhibited nurse-patient communication.

Conclusion Within the constraints of the study and the few quality papers available, it appears that personal characteristics of patients and nurses are the key influencing factors of effective nurse-patient communication in the oncology setting. Very little evidence exists on the role of environment in effective nurse-patient communication, particularly within an Asian setting.

Implications for practice Using evidence from the quantitative component of the review, nurses need to focus on the mental health status of patients admitted with a recurrence of cancer. Education programs can be implemented to inform nurses about the challenges in communication and develop strategies to counter these obstacles. Using evidence from the qualitative component of the review, nurses should build rapport and encourage active patient participation in their care in order to enhance patient disclosure. Nurses should also be mindful of patients' psychological readiness to communicate and respect their preference as to whom they wish to share their thoughts/emotions with.

Institutions need to design ward structures (ward culture and nurses' workload) that support and/or encourage nurses to be person-oriented and take responsibility for providing holistic care to patients. Both the quantitative and qualitative components of the review indicated the need to improve nurses' communication skills and their receptivity to patient cues.

Implications for research An explorative descriptive study on the effect of the Asian culture on the effective communication in the oncology setting is required to add to the small amount of knowledge in this area. Descriptive or mixed method studies to ascertain the effect of the patient's age and place within the oncology treatment cycle are also warranted. The lack of evidence on the effectiveness of post-basic communication courses would be best gathered by a descriptive study, followed by a before-and-after randomised controlled trial to test different education programs.

Keywords Nurse-patient communication; Cancer; Oncology nursing; Culture; Asian setting; Systematic review

Background

Communication is the process in which information, meanings and feelings are shared through the exchange of verbal and non-verbal messages.^{1, 2} Communication among human beings is complex and often is neither linear nor accurate due to varying human responses.³ Effective communication is defined as "a two-way process - sending the right message that is also being correctly received and understood by the other person"⁴, that is, in effective communication, interaction must be bi-directional and mutual understanding has to be attained.^{3, 5-7} Effective communication enables individuals to become aware of and sensitive to one another.⁸ This enhances the development of trust and emotional closeness, which is fundamental in interpersonal relationships.^{5, 8}

In the context of nursing, nurses interact frequently with patients, wherein each perceives the other in the situation and, through communication, sets goals, and agrees on means to achieve the goals.² It is essential that nurses are equipped with effective communication skills. However, in many instances, emotions can block communication.⁷ Failure to be empathetic can also inhibit interactions.⁸ Perceived hierarchy of powers and authority has also led to unilateral communication.⁹

In the oncology setting, communication is further complicated by the patient's life-threatening illness.¹⁰ Being diagnosed with cancer will inevitably create psychological distress and a substantial need for informational and emotional support.¹¹ Complex treatment modalities can induce anxiety in patients.³ Collectively, the emotional load in cancer care makes interaction between nurses and patients all the more challenging.

Existing studies have identified internal and external factors influencing nurse-patient communication in an oncology setting.

With regard to internal factors, several studies suggested that nurses' self-awareness, attitudes to death and level of facilitative communication skills can affect effective communication.^{1, 2, 10, 12} Nurses often fear that patients will unleash strong emotions which they cannot handle, and thus they often stop patients from disclosing their worries by changing the topic or even choosing not to initiate the conversation.¹³

Nurses also tend to inform patients about treatment and providing practical care rather than to explore their feelings and actively discuss the emotional aspects of the disease.¹⁴ Additionally, language barriers could also restrict patients' understanding of nurses' advice, which consequently limits nurses' psychological support for the patients.¹⁵

Externally, the environment in which communication takes place has been identified to affect nurse-patient communication.^{8, 16, 17} Organizational culture may promote or inhibit nurses from working to establish therapeutic relationships with patients.¹ Demands of the institutional setting and heavy workload can also limit the time allowed for communication.³

Effective communication is the cornerstone of nurse-patient relationships.³ The significance of effective communication has been emphasized repeatedly in the development of the therapeutic nurse-patient relationships, which in turn will affect patients' perceptions of the quality of the care they receive.^{1, 2, 18} Quality care means that the nurse does not make assumptions but assesses the needs and preferences of the patient through effective communication and provides corresponding care to meet these needs.^{15, 19} Additionally, effective communication encourages patients to express their anxieties, and thus get emotional relief which improves patient outcomes.¹⁰ It is therefore important for nurses to create an environment of trust, in which the patient feels respected, involved and accepted. This will subsequently improve the quality of communication as well as improve patient outcomes.²⁰ When a patient's own emotional resources are inadequate to cope with the stress they face, psychological distress may result and this will place additional burden on their physical health.²⁰ Effective communication thereby involves not only sharing information but also providing emotional care, which is also a crucial task in quality nursing.^{8, 14}

In conclusion, the importance of effective communication in an oncology inpatient setting has been described by several studies.^{3, 11, 12} In particular, cancer diagnoses and complex treatment modalities have been identified to complicate communication.^{3, 10, 11} The importance of effective communication and its role in decreasing the psychological distress in patients by promoting disclosure have been emphasised.^{3, 10, 20} Effective communication plays a crucial role in meeting the cognitive and affective needs of oncology patients.^{8, 14} Supportive communication can enhance patients' psychological adjustment and thus improve patient outcomes. Overall, it can improve the quality of care delivery.

Objectives

Prior to commencing the review, a search of databases (e.g. Cochrane and JBI) revealed no systematic review conducted on the factors affecting effective communication between nurses and oncology patients in the inpatient setting. The aim of this review, therefore, was to establish the best available evidence regarding the factors affecting effective communication between registered nurses and adult oncology patients in an inpatient setting. Specifically, the review would determine:

1. What were the factors enhancing the effective communication between registered nurses and inpatient oncology adults?
2. What were the factors hindering the effective communication between registered nurses and inpatient oncology adults?

Inclusion criteria

Types of participants

This review considered studies that included oncology registered nurses and inpatient oncology adults who were more than 21 years of age. This review considered studies that were carried out in an inpatient setting, regardless of ward specialty, whilst active or palliative cancer treatments were administered.

Phenomena of interest

This review considered the factors affecting effective communication between registered nurses and inpatient oncology adults.

Types of studies

This review considered both quantitative and qualitative studies on the factors affecting effective communication between oncology nurses and oncology adult patients in an inpatient setting.

For the quantitative component of the review, any randomized controlled trials, non-randomized controlled trials, before and after studies and cohort observational studies that examined the factors affecting effective communication within adult inpatient oncology settings were considered. Descriptive survey and mixed method studies were also considered for inclusion.

The qualitative component of the review considered any interpretive studies that had drawn on the experiences of the factors that could affect nurses' communication with inpatient oncology adults, including, but not limited to, designs such as phenomenology, grounded theory and ethnography.

Exclusion criteria

This review excluded studies which involved:

- Patients who were less than 21 years of age.
- Patients with intellectual or cognitive disabilities.
- Patients who were not aware of their cancer diagnoses
- Factors affecting effective communication between oncology patients and physicians/therapists/nursing students.
- Factors affecting effective communication between oncology nurses and patients' families/relatives.
- Factors affecting effective communication during end-of-life care and cancer support group counselling.
- Factors affecting effective communication during the disclosure of cancer diagnosis.
- Studies conducted using simulated oncology patients (definition of simulated patient: an individual who is trained to act as a real patient in simulation training).
- Studies conducted to validate assessment tools for communication.
- Studies conducted to test the effectiveness of communication skills training courses.

- Studies conducted on therapeutic touch.
- Studies not published in English.

Search strategy

The search strategy aimed to find published studies and papers. The search was limited to English language reports. A three-step search strategy was utilized in each component of this review. An initial limited search of MEDLINE and CINAHL was undertaken followed by an analysis of the text words contained in the title and abstract, and of the index terms used to describe the article. A second search using all identified keywords and index terms was then undertaken. Lastly, the reference lists of all identified reports and articles were searched for additional studies.

Due to limited time frame, the grey literature was not included in this review.

Electronic databases that were searched were: CINAHL; Ovid Full Text; PubMed; ScienceDirect; Scopus; and Wiley InterScience.

The search strategy was not limited by year of publication.

Keywords and their respective combinations used for searching the literature are illustrated in Appendix I. The titles and abstracts (if available) identified from the search were assessed independently by two reviewers against the inclusion/exclusion criteria. For all studies that appeared to meet the criteria, or if the titles and abstracts were inconclusive, full texts were retrieved for thorough evaluation against the inclusion/exclusion criteria in order to determine their applicability to the review objectives.

Assessment of methodological quality

Qualitative and quantitative studies selected for retrieval were assessed by two independent reviewers for methodological validity prior to inclusion in the review using the standardized critical appraisal instruments from the Joanna Briggs Institute System for the Unified Management, Assessment and Review of Information (JBI-SUMARI) (see Appendix II). Disagreements that arose between the reviewers were resolved through discussion. A third reviewer was used to resolve any areas of conflict between the first and second reviewers.

Data extraction

Quantitative data were extracted from papers included in the review using standardized data extraction tools adapted from the Joanna Briggs Institute Meta Analysis of Statistics Assessment and Review Instrument (JBI-MAStARI) (see Appendix III). The data extracted included specific details about the method, setting, participants, number of participants, interventions, measures used and outcome of the study.

Qualitative data were extracted from papers included in the review using standardized data extraction tools from the Joanna Briggs Institute Qualitative Assessment and Review Instrument (JBI-QARI) (Appendix IV). The data extracted included specific details about the methodology, method, phenomena of interest, setting, geographical, cultural, participants, data analysis and author's conclusion of the study.

Any disagreement that had arisen between the reviewers was resolved through discussion. The third reviewer was not required.

Data synthesis

Quantitative component of the review

Due to the nature of the review objectives, no relevant randomized controlled trials, non-randomized controlled trials, before and after studies and cohort observational studies were found. However, one descriptive survey and two mixed method studies were found to fit the inclusion/exclusion criteria. As these studies were descriptive in nature and used different outcome measures and/or interventions, statistical pooling of the data (i.e. meta-analysis) was not possible. Hence, the findings are presented in narrative form.

Qualitative component of the review

Using the JBI-QARI, qualitative data extracted from four qualitative studies and one qualitative arm of a mixed method study were put together in a meta-synthesis. This involved the aggregation or synthesis of findings to generate a set of statements that represent that aggregation, through assembling the findings (Level 1 findings) rated according to their quality, and categorizing these findings on the basis of similarity in meaning (Level 2 findings). These categories were then subjected to a meta-synthesis in order to produce a single comprehensive set of synthesized findings (Level 3 findings) that was used as a basis for evidence-based practice.

Results

An initial search of the literature produced 65 potential papers with titles and abstracts (if available) which met the criteria. Of the 65 potential papers, 22 were found to be reviews or opinion pieces and thus were excluded. The remaining 43 papers were assessed and divided into quantitative and qualitative components of the review respectively.

In general, the included studies involved oncology nurses and oncology inpatient patients from a wide variety of diagnoses (oncological or haematological malignancies) who were at various stages of the disease and were receiving different treatments (active treatment or palliative care). These studies were also conducted from across an international spectrum: Sweden; Norway; Beijing; England; Texas; and the Netherlands.

Description of Studies

Quantitative component of the review

A total of three studies were included in the quantitative component of this review. Figure 1 provides a description of the retrieval and selection of quantitative studies during the review process. Table 1 provides a brief description of the quantitative studies included in this review.

Details on the data extracted from these quantitative studies (including the method, purpose, setting, participants, intervention, measures used and outcome of the study) can be found in Appendix V.

Figure 1 Flowchart for retrieval and selection of quantitative studies

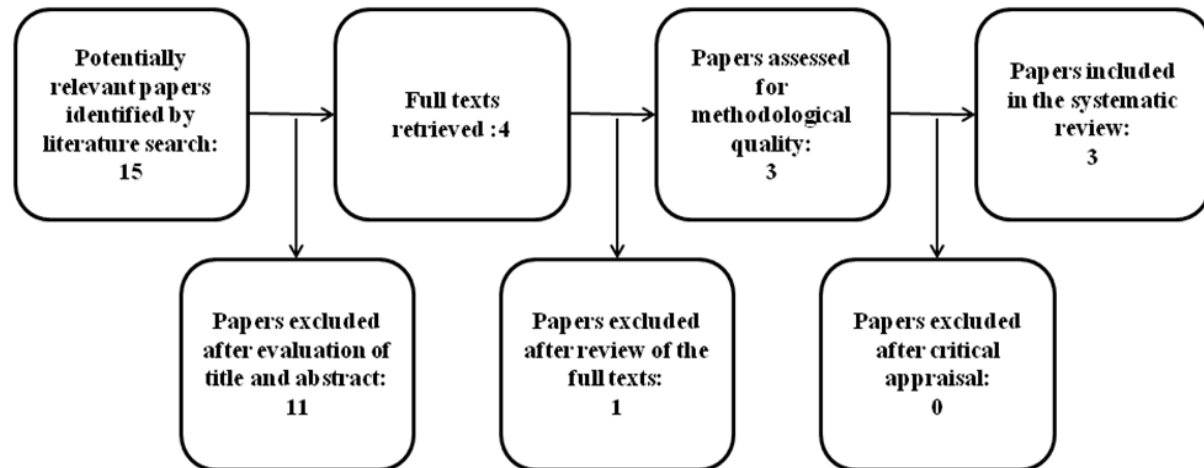


Table 1 Description of the quantitative studies included in this review

<u>Citation.</u>	<u>Geographical setting.</u>	<u>Design.</u>	<u>Method.</u>
Sivesind, et al. (2003)	Texas	Descriptive survey	Self-reported questionnaires
Uitterhoeve, et al. (2009)	Netherlands	Mixed method	Nurse-patient conversations were videotaped, analysed, and the patients' cues and nurses' cue responses coded using MIARS. Questionnaires were used to assess patients' level of anxiety and depression and their satisfaction with the communication.
Wilkinson (1991)	England	Mixed method	Self- reported questionnaires; Nursing histories were tape-recorded, transcribed and assessed by an independent psychologist using a devised coding system for classification into facilitative or blocking behaviour, and also its extent of coverage.

Qualitative component of the review

Five studies were included in the qualitative component of this review. Figure 2 provides a description of the retrieval and selection of qualitative studies during the review process. Table 2 provides a description of the qualitative studies included in this review.

Details on the data extracted from these qualitative studies (including the methodology, method, phenomena of interest, setting, participants, data analysis, and conclusion of the study) can also be found in Appendix V.

Figure 2 Flowchart for retrieval and selection of qualitative studies

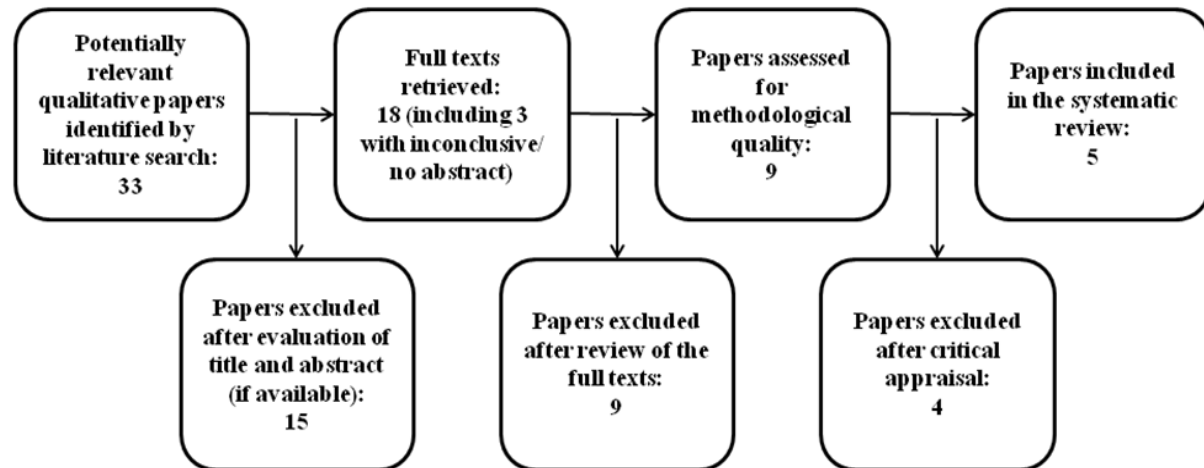


Table 2 Description of the qualitative studies included in this review

<u>Citation.</u>	<u>Geographical setting.</u>	<u>Design.</u>	<u>Method.</u>	<u>Analysis</u>
Bertero, et al. (1996)	Sweden	Grounded theory	Participant to passive observations; tape-recorded reflective conversations; and field-notes	Constant comparative technique of Hutchinson's three-level coding
Bottorff & Morse (1994)	Unclear	Unclear	Videotaped observations and unstructured interviews	Thematic analysis
Kvåle (2007)	Norway	Phenomenology -- Giorgi	Unstructured interviews	Giorgi's approach to thematic analysis
Liu, et al. (2005)	Beijing, China	No specific theoretical framework/ philosophical perspective	Semi-structured interview	Content analysis
Wilkinson (1991)	England	Mixed method (analytical relational survey)	Tape-recorded nursing histories; semi-structured interviews; and field notes	Thematic analysis

A total of 10 studies (1 from the quantitative component and 9 from the qualitative component) were excluded during selection of papers. Another 4 studies (all from qualitative component) were excluded during critical appraisal. A list of the excluded studies with the reasons for exclusion is provided in Appendix VI.

Methodological quality

Quantitative component of the review

Using self-reported questionnaires, Sivesind, et al.²¹ investigated the clinical situations in which nurses find challenging. This is a moderately low quality paper. The inclusion criteria for participants were clear and confounding factors were dealt with. Focus group was used for content validation of the questionnaire. Statistical analysis of the data was sound. However, many areas of the study remained unclear. These included how the participants were sampled, and whether the outcomes were measured in a reliable way. Comparisons were made, but there were insufficient descriptions of each group. Additionally, the outcomes of participants who withdrew from the study were described, but it was unclear if they were included in the analysis.

Using video-taped nurse-patient conversations and questionnaires, Uitterhoeve, et al.²² conducted a mixed method study to investigate the relationship between nurses' cue-responding behaviour and patient satisfaction. This is a moderately high quality paper. The inclusion criteria for participants were clear and confounding factors were dealt with. Validated questionnaires (Hospital Anxiety and Depression Scale; and Heaven & Maguire's Concerns Checklist) were administered by the same researcher. The video-taped conversations were decoded by trained personnel using the Medical Interview Aural Rating Scale (MIARS). Statistical analysis of the results was sound. However, the sampling method and whether the outcomes of participants who withdrew from the study were included in the analysis remained unclear.

In England, Wilkinson¹² conducted a mixed method study (using an analytical relational survey) in 1991 to examine the extent nurses exhibited facilitating and blocking behaviours when communicating with cancer patients, and if these behaviours were correlated with the nurses' anxiety, attitudes to death, social support and work environment. This is a moderately high quality paper. The participants were sampled randomly and the inclusion criteria were distinct. Outcomes were assessed using validated instruments (Fear of death scale; Norbeck social support questionnaire; and State Trait Anxiety inventory) and analysed using appropriate statistical tests. However, confounding factors were not identified and dealt with and outcomes of participants who withdrew were described but not included in the analysis. Additionally, there were insufficient descriptions of the comparison groups.

Qualitative component of the review

Bertero & Eriksson²³ investigated the congruity between the care supplied by nurses and the care demanded by haematology patients in Sweden. This is a moderate quality study. The study was based on Grounded Theory but was not situated within any philosophical perspective. Ethical approval was obtained from the Committee on Research Ethics, Faculty Health Sciences, Linköping, Sweden. Data were collected using observations, tape-recorded nurse-patient conversations and field notes and analysed using constant comparison method and Hutchinson's 3-level coding. Participants' voices were adequately represented and the conclusions drawn were supported by the data. However, themes (instead of theory) were generated. There was no statement locating the researchers culturally or theoretically, and the influence of the researchers on the study was not addressed.

In 1994, Bottorff & Morse²⁴ used observations and unstructured interviews to examine the types of nurse-patient interactions in an active treatment oncology ward. This is a moderate quality, ethological study which was not situated within any philosophical perspective and the research aim was not clearly stated. There was congruity between the research methodology and the analysis/interpretation and

representation of data. Participants' voices were provided and the conclusions drawn flowed from the data. However, there was no statement locating the researchers culturally or theoretically, and the influence of the researchers on the study was not addressed. Although informed consent was obtained, it was unclear if ethical approval was obtained from an institutional review board.

In Norway, Kvåle¹² conducted a study to ascertain if cancer patients in an oncology ward wanted to talk about their feelings and difficult emotions while hospitalized. This is a high quality study situated within Husserl's phenomenology and used Giorgi's approach to data analysis. Unstructured interviews were used to collect data from a purposive sample. The research methodology was congruent with collection, analysis and interpretation of data. Voices of participants were represented and conclusions drawn flowed from the interpretation of the results. Ethical approval was obtained from the Western Norway Regional Committee for Medical Research Ethics and the influence of the researcher on the study was addressed.

Liu, et al.¹¹ explored the perceptions and expectations of supportive communication in hospitalised Chinese patients with cancer in Beijing. This is a moderate quality study. The study was not situated within any specific philosophical perspective, but took a qualitative approach to data collection and analysis, which was congruent with the use of semi-structured interviews and content analysis. Results and conclusions appeared to be supported by the data as presented and supported by participants' voices. Ethical clearance was obtained from the university's and hospital's ethics committee. However, there was no statement locating the researchers culturally or theoretically, and the influence of the researchers on the study was not addressed.

In the qualitative component of the mixed method study conducted by Wilkinson¹², tape-recorded nursing histories, semi-structured interviews and field notes were used to investigate nurses' awareness of their blocking and facilitating verbal behaviours, as well as their views and feelings about communicating with cancer patients. This is a low quality study not situated within any philosophical perspective. Research objectives and method of data analysis were not stated clearly. The results did not answer the general aim of the study. The researcher was not culturally or theoretically, and her influence on the study was not addressed. There was also no mention of obtaining ethical clearance from an appropriate body, but the study was ethical according to current criteria and was therefore included. However, the conclusion drawn appeared to be supported by the interpretation of the data and participants' voices were adequately represented.

Full details on the final critical appraisal assessment for both quantitative and qualitative studies included in this review can be found in Appendix VII.

Results of the quantitative component of the review

Since these quantitative studies were descriptive in nature, the findings are presented in narrative form in answer to the two objectives set for the review.

1. What were the factors enhancing the effective communication between registered nurses and inpatient oncology adults?

In a study based in England, Wilkinson¹² examined the factors influencing nurses' communication with cancer patients. Specifically, the author investigated the extent of facilitative and blocking behaviours

exhibited by nurses when communicating with cancer patients, and the relationship, if any, between nurses' behaviours and their levels of state and trait anxiety, attitudes to death, perceived levels of social support and work environment. A total of 56 nurses from a specialist cancer hospital and a district general hospital participated in the study.

This study employed a mixed method design. The quantitative arm of the study used self-administered questionnaires (fear of death scale, Norbeck social support questionnaire and State Trait Anxiety inventory) to collect data. Tape-recorded nursing histories were transcribed and each verbalisation was assessed by an independent psychologist experienced in rating audio-taped interviews with cancer patients using a devised coding system as facilitative or blocking behaviour, and its extent of coverage of nursing history.

Using stepwise-multiple regression at 0.05 level of significance to test the contribution of predictor variables on facilitative behaviours, it was found that the ward on which the nurse worked ($p=0.001$), the stress resulting from giving poor care ($p=0.012$) and having attended an oncology course ($p=0.025$) were significant predictors for facilitative behaviour. These meant that nurses working in wards with role model ward sisters, nurses who experienced stress resulting from giving poor care, and nurses who had completed post-basic education in cancer nursing were better facilitators. In contrast, satisfactory nurse management support ($p=0.026$) and nurses wishing to talk openly with patients ($p=0.013$) were significant predictors for poor facilitative behaviour. Nurses who received satisfactory support from nurse managers and nurses who would like to talk truthfully and openly with patients but were not sure if they had the skills to do so were poorest facilitators.

Considering that nurses at the specialist hospitals had completed post-basic training in communication skills and the common assumption that these nurses provided better patient communication/care, the Whitney-Mann U test was used to compare the blocking and facilitative scores between the specialist hospital nurses and general hospital nurses. No significant differences were found in the verbal behaviours or coverage scores for recently admitted patients. However, when dealing with the more difficult areas of recurrence and palliative care, nurses at the general hospital demonstrated a statistically significantly higher facilitative score ($p=0.02$) and lower blocking score ($p=0.05$) compared with specialist hospital nurses. This finding thus questioned the effectiveness of post-basic training in improving oncology nurses' communication with patients.

In a major oncology centre in Texas, Sivesind, et al.²¹ conducted a descriptive survey using a self-reported questionnaire to better understand the challenges nurses faced in their everyday communication and care of cancer patients and their families. From the responses of the 350 nurses who participated, a general pattern emerged wherein the Advanced Practice Nurses (APNs), as compared to the other nurses (staff nurses, research nurses and nurse managers), reported lower level of difficulty in or felt better skilled to handle some clinical situations.

Using t-tests to test for significance differences in the perceived level of difficulty between the APNs and the other nurses, it was found that some situations were significantly easier for the APNs: "handling requests for euthanasia" ($p<0.0001$); "addressing the patient's sexual concerns" ($p<0.0001$); "managing overprotective families" ($p<0.01$); "intervening with patients who are in denial" ($p<0.01$); "setting boundaries when families have unrealistic expectations of care" ($p<0.01$); "discussing Do Not Resuscitate (DNR) issues" ($p<0.01$); and "intervening with family members who are depressed" ($p<0.01$).

Similarly, using t-tests to test for significance differences in the perceived skill level between the APNs and the other nurses, it was discovered that APNs perceived better skilled in handling some situations: “addressing the patient’s sexual concerns” ($p < 0.0001$); “handling requests for euthanasia” ($p < 0.01$); “intervening with family members in denial” ($p < 0.01$); “managing clinical situations that pose ethical dilemmas” ($p < 0.01$); “intervening with patients who are in denial” ($p < 0.01$); and “addressing the patient’s fears” ($p < 0.01$).

2. What were the factors hindering the effective communication between registered nurses and inpatient oncology adults?

In the study conducted by Wilkinson¹² which examined the factors influencing nurses’ communication with cancer patients, it was discovered that, using descriptive statistics, the coverage scores of the nursing histories were particularly low in areas of psychological assessment in comparison with the physical assessment (i.e. few nurses explored the patients’ psychological states). Using non-parametric test (not specified), nursing histories taken from patients admitted with a recurrence of their disease was significantly less comprehensive than the new patients ($p = 0.0004$) and patients admitted for palliative care ($p = 0.005$). This indicated that nurses were less thorough in their nursing assessment with patients admitted with relapsed cancer.

Similarly, nurses exhibited significantly greater percentage of blocking verbal behaviours when taking nursing histories from patients admitted with a recurrence, compared with the new patients ($p = 0.03$) and patients for palliative care ($p = 0.09$). Using the Kendall Tau correlation to determine whether verbal behaviours used affected coverage of nursing histories, it was discovered that nurses who had a higher blocking score had lower coverage scores for each interview at the 1% level of significance. This confirmed that nurses who used more blocking behaviours covered less during the interview.

Using stepwise-multiple regression at 0.05 level of significance to test the contribution of predictor variables on blocking behaviours, nurses’ religion ($p = 0.03$), self-awareness ($p = 0.04$), fear of dying ($p = 0.023$), state anxiety post-interview ($p = 0.02$), number of hobbies ($p = 0.02$) and stressor staff conflicts ($p = 0.02$) were significant predictors for blocking behaviour. In the respective sequence, nurses who were atheists (who believed there was no deities), nurses who used blocking behaviour consciously, nurses who were most afraid of dying, nurses who had lower levels of anxiety after completing the most difficult nursing history, nurses who committed a lot of their time in outside interest and nurses who had conflicts with fellow colleagues, blocked patients more frequently.

In the study by Sivesind, et al.²¹ which investigated the situations nurses perceived as challenging, it was discovered that nurses seemed confident in providing for the physical needs of their patients, but they perceived more difficulty and were less skilled in addressing concerns that were emotionally charged. Specifically, the participants rated “handling requests for euthanasia or assisted suicide” as most challenging. Other areas in which the participants also reported being challenged included:

- “having several dying patients in your practice at once”
- “managing clinical situations that pose ethical dilemmas”
- “dealing with families who are in conflict about treatment decisions”
- “setting limits with patients who demand too much time”

- “managing overprotective families”
- “intervening with patient/family members who are angry”
- “intervening with patient/family members who are in denial”
- “setting boundaries when families have unrealistic expectations of care”
- “dealing with the economic impact cancer has on patients and their families”

In the Netherlands, Uitterhoeve, et al.²² conducted a study using the mixed model design to investigate the relationship between nurses' cue-responding behaviour and patient satisfaction. A total of 34 nurses and 100 patients were involved in the study. Every participating nurse performed three conversations (each with a different cancer patient), which were videotaped, analysed, and the patients' expression of emotional cues and nurses' cue responses coded. Preceding the videotaping, each patient completed two short questionnaires assessing their present concerns and measuring anxiety and depression. Upon cessation of the videotaped conversation, each patient completed a third questionnaire which assessed whether their concerns had been discussed by the nurse and their satisfaction with the communication.

Using descriptive statistics, the results of this study showed that, first, patients were implicit in their expression of concerns. Per conversation, the mean number of cues was 14.2 (95% CI: 12.7-15.7) and 25% of the patients' discourse contained cues: only 6% of these cues contained explicit unpleasant emotion (Mean=0.8, 95% CI: 0.31-1.29); 24% mentioned worry or concern (Mean=3.4, 95% CI: 2.8-4.0); and the remaining 70% were expressions that signalled worry or concern (Mean=10, 95% CI: 8.9-11.1). Second, nurses' response to patients' cues was low. Per conversation, 21% of the cues were explored (Mean=3.0, 95% CI: 2.4-3.6), 24% were acknowledged (Mean=3.4, 95% CI: 2.8-4.0) and a majority 55% were responded to with distancing behaviours (Mean=7.9, 95% CI: 7.1-8.8). Third, the mean perceived performance of the nurse per conversation was 0.50 (SD=0.16, range 0.05-0.79 and 95% CI: 0.46-0.53) on a Likert-type scale from 0 to 1.

Using Pearson and Spearman correlations, it was discovered that patients' perceived performance (of nurses) was positively correlated with nurses' cue responding ($p=0.007$) and the number of cues used ($p=0.021$). Patients were more satisfied when nurses responded to their cues, and this likelihood was enhanced when patients used more cues. Patients who were on palliative treatment were more satisfied with the communication of nurses than curatively treated patients ($p=0.001$). Older patients were also more satisfied with the communication of nurses than younger patients ($p=0.025$). However, when a linear mixed model approach in SPSS 14.0 software was used to evaluate the relation of cue responding with patient satisfaction adjusting for confounding variables, it was discovered that cue responding ($p<0.05$) and palliative treatment ($p<0.01$) independently contributed to perceived performance of the nurse. Patient age was not a significant contributor.

Results of the qualitative component of the review

A total of 26 qualitative findings and their illustrations were extracted and each finding was assigned a level of credibility according to JBI criteria (see Appendix VIII). However, one of the findings was not supported by illustration and was thus excluded from the review. The remaining 25 findings were then clustered into eight categories and then further grouped into four synthesised findings. The synthesised findings will be presented in relation to the review questions respectively.

Finding 1 Meeting basic needs [C]

The nurse is talking to the patient, who is asking for some yoghurt with whortleberry. An enrolled nurse comes in with a tray of food, hands it over to the nurse, who puts it on the table and then discovers that the soup is cold. She says: 'You cannot eat cold soup, it will not taste nice, I will take it out and warm it up, so you will get some warm soup.' [Bertero 1996, p.204]

Finding 2 Information-collecting routines [E]

The patient is now indisposed and starts to vomit bile and viscous mucus. The nurse starts to ask such questions to the patient: 'How are you doing? Do you feel more nausea now? Have you been vomiting like this before? Are you in more pain now?' The patient is not able to answer. The patient is busy vomiting, being nauseated and trying to catch his breath. [Bertero, 1996, pp.204-205]

Finding 3 Information-giving routines [E]

Aron is out in the corridor of the ward, talking around with nursing staff and other patients. Jack, the nurse, asks Aron if he has got information about brushing teeth and such things when the blood tests values are going down. 'No', Aron answers and looks puzzled. Well, then I will come and give you information about that and connect your chemotherapeutic agents infusion. [Bertero '96; p.205]

Finding 4 Medical-technical routines [E]

Jack, the nurse went into Ceasar's room. He is going to connect some thrombocytes. The patient is sleeping. The nurse checks the patient's identity by looking at the patient's bracelet then connects the infusion while talking a little to the patient's wife. She is wondering about Ceasar's central vein cannula and when they are going to dress it. The nurse promises to check it up and leaves the room. [Bertero '96; p.205]

Finding 5 Patients demanded conversation [E]

...I was wondering, are you very busy tonight? ...I am so keen to talking today, so I hope that you can come in here later on and talk to me, and could you talk about something else rather than the disease... [Bertero '96; p.206]

Finding 6 Honest & correct information [E]

And then I had asked one of the consultants about how big this dose [chemotherapeutic agents] was. He said it was not so big, it was fairly weak. And then I meet the next physician and he tells me that 'it is quite a lot of chemotherapeutic agents you have got now'... 'What do you mean?' I asked. 'You have to explain this, you are knowledgeable in this matter'. One says I am treated with fairly weak doses and the other that I am treated with quite heavy stuff. I cannot accept that. [Bertero '96; p.206]

Finding 7 Patients felt safe in the care of competent staff [C]

...what do I think? Well, it should be well-prepared, so there should be no problems then; everything should be there, they [nursing staff and physicians] should know what they are doing and so on, I think... [Bertero '96; p.206]

Finding 8 Nurses lack respect, concern & empathy for patients [C]

...they do not have to ask how I want things... it is careless, I think it is careless... you feel totally run over... I mean, they do not understand what it is like to be a patient, when they do things like this. [Bertero '96; p.206]

...They are so careless, coming here just doing their job. That is it, they think we are machines, not human beings they are working with... [Bertero '96; p.207]

Finding 9 Patients wanted to participate in their own care [E]

[I] want to have my central vein cannula dressed, since the tape has been torn and it is letting in water... there is a risk of getting infections, which I do not want... [Bertero '96; p.207]

Finding 10 Doing more [E]

[The nurse begins to rub powder on radiation area on patient's neck.]

Nurse: It's sore? Is it sore now?

Patient: No. It just kind of burns.

Nurse: Yeah.

Patient: Burns, burns and itchy. [Pause] Oh well. Just two shots to go.

Nurse: Mm hmm. How many, how long has this been?

Patient: Thirty-four shots.

Nurse: You've sure done well.

Patient: Yeah. Considering.

Nurse: Mm hmm. [She continues to rub powder on patient's neck and lower face.]

Patient: I didn't think it would be this is bad. I guess maybe a lotta people are maybe worse off than I am when it comes to that.

Nurse: That's right. There are. There's always something, isn't it? There's always someone worse off than yourself.

Patient: Yeah. Yeah. I'm not gonna complain. I've never complained since the day...

Nurse: I bet you haven't.

Patient: No. [pause] What for?

Nurse: Ah, well sometimes it makes you feel good. It makes me feel good sometimes.

Patient: Yeah. Well thank you for the opportunity. That sounds strange but, that's OK. [Bottorff '94; p.56]

Finding 11 Doing for [E]

She [the nurse] talked to you, and she did things for you... not because it was her duty, but because she enjoyed doing it for you. And it made you feel you're not imposing on her, you're not an imposition, and you didn't mind asking her to do things for you. That's very important. Because you don't want to feel like you're a burden. You feel bad enough being in the hospital without being made to feel that you are a

burden. I know I do because I've always been able to do things for myself, and it's pretty hard for me to accept the fact that I had to let go and let people do things for me. [Bottorff '94; p.57]

Finding 12 Doing with [E]

They tell you exactly what they're going to do and why they're going to do it... It makes you feel so much more comfortable and confident, that you know everything's going to be all right... [If they do not tell you] it makes you nervous because... you sort of tense up and wonder how much it is going to hurt. [Bottorff '94; p.58]

Finding 13 Doing tasks [E]

[The patient is in the hallway on the mobilizer. The nurse comes into room to make sure there is a clear pathway to the bed.]

Patient: I hope my lunch won't be cold.

Nurse: We have a microwave.

Patient: I've been through this quite a few times. Either my breakfast or my lunch ends up [cold].

Nurse: That seems to happen.

Patient: Oh yeah.

Nurse: Unfortunately...

Patient: No problem.

Patient: No problem.

[Silence as the nurse slowly moved patient into the room and then put down the side rails.]

Nurse: Now does this foam and everything go...

Patient: They're all attached. Yes. Everything goes with me. Quite a bundle.

Nurse: Yeah.

[Silence as nurse got everything ready for the transfer back to the bed.]

Patient: I'm probably due for a breakthrough soon. It's that terrible pain in my leg and shoulders.

[Silence as the nurse continued to prepare to transfer the patient. She checked over the controls and then gave them a try. Nothing worked.]

Nurse: What am I doing wrong?

[Nurse checked over mobiliser, put side rail up and exited the room.] [Bottorff '94; p.58]

Finding 14 Cognitive avoidance & distancing [E]

No, I don't want to talk about it. I have not even talked to my daughters. I try to avoid thinking of it. Yes, I do. I don't know why... I hope everything will turn out well. I try to be strong; I want to get back to my life – back to my home. It is not very much the nurses can do, and I don't want to talk about it. [Kvåle '07; p.323]

Finding 15 Normalization, finding meaning & living in the present [E]

One of the nurses is making a national costume for her daughter. She brought the embroidery and showed it to me. We discussed how to do it. That was fun, and later I brought my national costume to the ward, and also pictures. We shared a common interest that had nothing to do with the stupid disease. It was something more in life... It is good when the nurses also discuss various interests with the patients, not only the patients among themselves. It is good when the nurses are together with us. [Kvåle '07; p.323]

Finding 16 Support from family, friends & others [E]

I have a good social network around me: family, friends, colleagues, neighbours and many sisters and brothers. I also have children and I have a husband. My husband is my greatest psychologist. We know each other best. But he must get help sometimes. [Kvåle '07; p.324]

Finding 17 Urgent informational needs & active info seeking [E]

When I was diagnosed with cancer, all my family members immediately began to search for information about this disease. This process was arduous, time-consuming, and had little effect because there was so much information and I did not know what was useful for me. I think if health professionals could give us the most pertinent timely information related to the disease, it would be helpful. [Liu, et al '05; p.265; Case 11]

Finding 18 Sources of informational support [E]

For knowledge regarding the disease, I mainly asked doctors and read some books. For nursing information, I asked nurses when they provided routine care. [Liu, et al '05; p.265; Case 4]

Finding 19 Characteristics of supportive communication [E]

In truth telling, nurses should take into account patients' conditions and respect their relatives' opinions, then get to know what they can say and not say. Each patient should be dealt with individually. [Liu, et al '05; p.266; Case 15]

Finding 20 Informational support and negative effects from fellow patients [E]

I preferred to talk about my disease with fellow patients who have suffered from the same disease, because they have good practical and experiential knowledge. [Liu, et al '05; p.266; Case 13]

I would not like to communicate with fellow patients with pessimistic thinking, such as those who have no hope and who suffer from pain and discomfort. [Liu, et al '05; p.266; Case 4]

Finding 21 Sources of emotional support [E]

When I was diagnosed with cancer, I immediately went to see my brother rather than my mother (she is older) or friends, because my brother was the most suitable person to help me. For emotional support, I only talk to my wife. Relatives and friends came to see me and brought me some nutritious food. I have good support from them. [Liu, et al '05; p.266; Case 2]

Finding 22 Reasons for not seeking emotional support from nurses [E]

When I was in a low mood, I thought talking to others was of no use. I could not find an appropriate person to talk to. As a man, I think I should be self-reliant. [Liu, et al '05; p.267; Case 4]

Finding 23 Facilitators [E]

Nurse: Mrs D, could you just start by telling me what has brought you into hospital today?

Patient: Yes, I had to have my breast off about 3 years ago.

Nurse: Did you? Could you tell me why you had to have your breast off?

Patient: Oh, it was cancer.

Nurse: You were told it was cancer at the time, were you?

Patient: Yes, Mr W told me.

Nurse: How did you feel when he told you that?

Patient: Honest to God! Smacked, totally smacked.

Nurse: How do you mean, smacked? I'm not sure what you mean.

Patient: Shocked, but I've coped with it OK until this happened.

Nurse: And what's this?

Patient: Terrible pain in my back.

Nurse: Is that what's brought you in here today?

Patient: Yes, I can hardly walk now its got so bad I can't sleep for the pain either.

Nurse: Oh dear, you have been having a rough time, Mrs D. Can you tell me what you think is causing the pain?

Patient: The cancer. It's come back in my bones and that's why he wants to do some X-ray treatment to relieve the pain.

Nurse: Mr W has told you it's in your bones, has he?

Patient: Yes, love.

Nurse: What do you think *about that*?

Patient: Well, I'm not pleased. I was very upset what he told me as I realize that I may not get better. But if he can get rid of this pain I shall be so thankful as my grandchildren are coming from Canada for a holiday and I just want to be able to enjoy their visit and be able to go out for days with them. [Wilkinson '91; pp.681-682]

Finding 24 Ignorers [E]

Nurse: Right then, I only want to ask you a few questions. No problems since we last saw you 3 months ago?

Patient: A bit tired.

Nurse: A bit tired. No diarrhea or anything, no sickness?

Patient: No.

Nurse: Have any of your home circumstances changed? Do you still live at B?

Patient: That's right.

Nurse: And your next of kin is still your wife?

Patient: Yes.

Nurse: Do you know what you have come in for this time? Has it been fully explained?

Patient: Yes, things aren't right so I'm having some chemotherapy and a blood transfusion.

Nurse: Right, OK. Have they told you how long you will be in for?

Patient: Until Monday.

Nurse: You're having the treatment at night, are you? Are you on any tablets?

Patient: Yes.

Nurse: Have you brought them in with you?

Patient: Yes.

Nurse: Can I look at them so I can write them down on the form?

Patient: Zantac and Prednisolone.

Nurse: I'll take them off you as we normally take in patients' tablets when they come in and we will give them to you from our trolley.

Patient: Oh, I see.

Nurse: You've got your own transport to get home on Monday, I presume?

Patient: Yes.

Nurse: Right, that's it then. Apart from feeling tired, you've been feeling alright?

Patient: Well, I've got tingling sensations in my toes and finger ends.

Nurse: Are you sleeping alright?

Patient: I never do.

Nurse: Appetite, is that OK?

Patient: No, not really. I don't feel like food.

Nurse: Good. Right then, you know what's going on, don't you? Can I put your wrist label on?

Patient: I don't know which wrist you want.

Nurse: I'll have it on this one then? Right, that's all I need to know. Thanks.

[Wilkinson '91; pp.682-683]

Finding 25 Informers [E]

Nurse: Has the doctor told you all about the operation?

Patient: Yes, he has, love. I've got cancer in the lung that he's going to try and get it out if he can but he's not sure about it.

Nurse: Well tomorrow morning, before you go to theatre, we will give you an injection to make you nice and relaxed ready for going up.

Patient: Mmmm.

Nurse: You will be in theatre for a couple of hours and probably an hour in recovery until you are round from the anaesthetic, when we bring you back to the ward.

Patient: Mmmm.

Nurse: I'm sorry, but it's best if you know what is going to happen, the things to expect. Because they go through your chest, you have a couple of drains in and that's to take away any air and blood that collects in your chest. They will stay in for 2 days and you'll be connected to two glass bottles, like I say. You'll have a drip up as well--

Patient: Don't tell me any more, love. You're making me feel sick. [Wilkinson '91; p.683]

Finding 26 Mixers [Not supported]

No 'voice'. [No specific strategy for blocking. Used a mixture of facilitative and blocking verbal behaviours and appeared to be genuinely trying to assess the patient's problems and were usually more aware of the blocking verbal behaviours they were using than the informers and ignorers were.] [Wilkinson '91; p.683]

1. What were the factors enhancing the effective communication between registered nurses and inpatient oncology adults?

Promoting factors affecting communication can come from within the individual; in this case, the nurses (see Table 3). Two categories of qualitative findings were put together to constitute the first synthesised finding "Promoting factors in nurses".

The category "Good communication" encompassed three findings: "Characteristics of supportive communication"¹¹ (*Finding 19*) which emphasised the need to respect the individuality of the patients and to communicate with empathy; "Facilitators"¹² (*Finding 23*); which illustrated a situation in which the nurse used open-ended questions and empathetic responses to promote patient disclosure; and "Honest and correct information"²³ (*Finding 6*) which described a patient who hoped to receive similar and accurate information about his/her chemotherapy from the doctors and nurses.

The other category "Positive attributes in nurses" comprised of four findings: "Doing for"²⁴ (*Finding 11*) in which the nurse, who enjoyed assisting his/her patients in everyday activities, made the patients feel comfortable asking for help and not like a burden; "Doing more"²⁴ (*Finding 10*) in which the nurse took the initiative to communicate with, understand and encourage the patient when performing nursing task; "Doing with"²⁴ (*Finding 12*) in which the nurse explained the procedure and reassured the patient before execution; and "Patients feel safe in the care of competent staff"²³ (*Finding 7*) which described a patient expecting nursing staff to be competent and well-prepared.

Table 3 Factors in nurses that promote nurse-patient communication

Synthesised Finding	Categories	Findings
<p>1. Promoting Factors in Nurses</p> <p>The evidence suggests that nurses, who provide accurate and supportive communication, and know how to facilitate patient disclosure, can promote communication. In addition, patients trust competent nurses better and share more with nurses who treat them with genuine care and concern.</p>	Good communication	<p>Characteristics of supportive communication¹¹ [E] (<i>Finding 19</i>)</p> <p>Facilitators¹² [E] (<i>Finding 23</i>)</p> <p>Honest and correct information²³ [E] (<i>Finding 6</i>)</p>
	Positive attributes in nurses	<p>Doing more²⁴ [E] (<i>Finding 10</i>)</p> <p>Doing for²⁴ [E] (<i>Finding 11</i>)</p> <p>Doing with²⁴ [E] (<i>Finding 12</i>)</p> <p>Patients felt safe in the care of competent staff²³ [C] (<i>Finding 7</i>)</p>

The evidence suggests that good communication promoted disclosure. Patients wanted honest and accurate information which needed to be provided by nurses in a sensitive manner. Every individual is unique, so each patient will respond differently to the information delivered. Nurses who were mindful, empathetic and flexible in their approach were better at facilitating patient disclosure.

Communication was also enhanced when nurses showed genuine care and concern for patients. This included good eye contact, empathy, engaged dialogue, appropriate tone of voice and touch. In addition, nurses who were knowledgeable and competent increased patients' confidence and trust in them.

From the evidence presented, it becomes apparent that nurses need to be equipped with good communication skills/interpersonal skills and embrace a positive attitude in communicating with the patients.

Likewise, there are also factors within the patients which can promote nurse-patient communication (see Table 4). Within this synthesised factor "Promoting factors in patients", there was one category "Patients want or need to communicate" made up of four findings: "Patients demanded conversation"²³ (*Finding 5*) which described a patient seeking communication (i.e. to chat) with the nurses; "Patients wanted to participate in their own care"²³ (*Finding 9*) which illustrated a patient communicating her nursing care needs to the nurses; "Sources of informational support"¹¹ (*Finding 18*) which described a patient seeking information regarding the disease from the nurses during routine care; and "Urgent information needs and active information seeking"¹¹ (*Finding 17*) which illustrated a patient obtaining credible, pertinent and timely information related to the disease from health professionals.

Table 4 Factors in patients that promote nurse-patient communication

Synthesised Finding	Categories	Findings
<p>2. Promoting Factors in Patients</p> <p>The evidence suggests that patients, who initiate conversation in order to gather health information or to take part in their own care, can promote nurse-patient communication.</p>	<p>Patients want or need to communicate</p>	<p>Patients demanded conversation²³ [E] (<i>Finding 5</i>)</p> <p>Patients wanted to participate in their own care²³ [E] (<i>Finding 9</i>)</p> <p>Sources of informational support¹¹ [E] (<i>Finding 18</i>)</p> <p>Urgent information needs and active information seeking¹¹ [E] (<i>Finding 17</i>)</p>

The evidence suggests that patients demanded conversations wherein nurses were attentive and listened to their thoughts and questions. Patients who took an active role in their own care also communicated more with the nurses in terms of information-sharing and collaboration in decision-making. Nurses were also considered as an accessible source of professional information. In addition, the information provided by nurses was believed to be more comprehensible than that from doctors.

As presented in the evidence, nurses can encourage patients to ask questions and participate in their care in order to promote communication. Nurses are considered a credible and assessable source of information for the patients.

2. What were the factors hindering the effective communication between registered nurses and inpatient oncology adults?

Similar to promoting factors, inhibiting factors affecting communication can also come from within the individual -- the nurses (see Table 5). Included in this synthesised finding "Inhibiting factors in nurses" were three categories of findings.

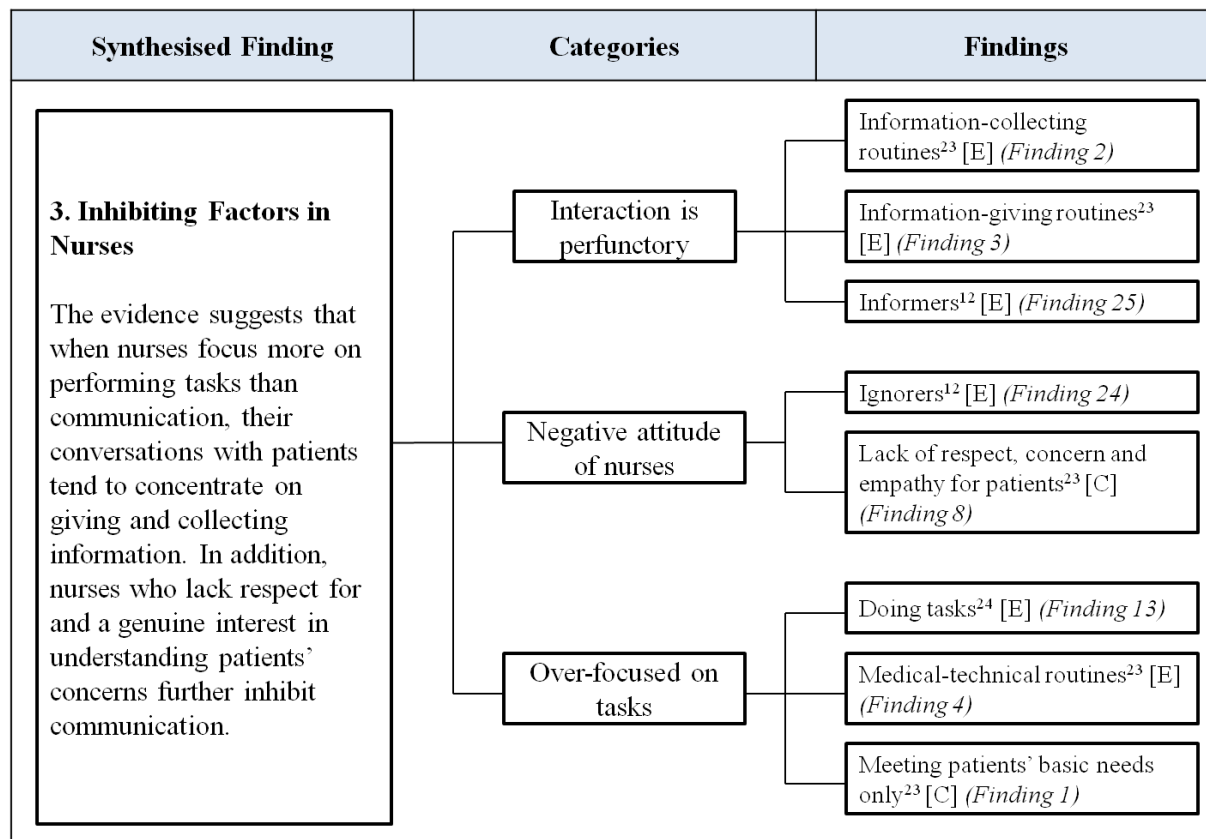
The first category "Interaction is perfunctory" encompassed three findings: "Information-collecting routines"²³ (*Finding 2*) which depicted a nurse attempting to collect information from the patient while the patient was vomiting and trying to catch his breath; "Information-giving routines"²³ (*Finding 3*) in which the nurse focused on providing self-care information to a thrombocytopenic patient; and "Informers"¹² (*Finding 25*) which illustrated a nurse delivering too much details of the operation the patient was going for in a rather insensitive manner which made the patient feel sick;

Included in the second category "Negative attitude of nurses" were two findings: "Ignorers"¹² (*Finding 24*) in which the nurse appeared to collect surface data and failed to explore deeper the issues that were

bothering the patient; and “Lack of respect, concern and empathy for patients”²³ (*Finding 8*) which described nurses failing to show empathy/care and treating patients as machines and not human beings.

The third category “Over-focused on tasks” is comprised of three findings: “Doing tasks”²⁴ (*Finding 13*) in which the nurse focused on performing tasks (e.g. transferring the patient, ensuring a safe environment and checking the controls of the bed) and neglecting to communicate with the patient; “Medical-technical routines”²³ (*Finding 4*) in which the nurse focused only on performing technical nursing care; and “Meeting patients’ basic needs only”²³ (*Finding 1*) in which the nurse focused on bringing the patient warm food instead of hearing what the patient said he/she wanted to eat.

Table 5 Factors in nurses that inhibit nurse-patient communication



The evidence suggests that communication between nurses and patients centres on collecting information about the patients and giving them information about the disease, treatment options and test results. In addition, nurses tended to give information, often when not requested by patients, to keep the conversation away from what were seen to be ‘uncomfortable areas’ by the nurses. Nurses who ignored patients’ cues and concerns also inhibited disclosure. Likewise, nurses who lacked respect, concern and empathy for patients could also prevent open communication.

With a focus on performing tasks, it was seen that nurses neglected the human aspects of care. Communication was further impeded as nurses usually used an indifferent and routinised approach when they were focused on getting the job done.

As discussed above, it is evident that nurses need to move away from task-orientation to using effective communication and cue-responding behaviour in the provision of better psycho-emotional care for the patients.

There are also factors within the patients which can inhibit communication (see Table 6). In this synthesised finding “Inhibiting factors in patients”, there were two categories of findings.

In the category “Patients prefer not to discuss distressing issues”, there were three findings: “Cognitive avoidance and distancing”²⁵ (Finding 14) in which the patient verbalised reluctance to talk about the disease; “Normalization, finding meaning and living in the present”²⁵ (Finding 15) which illustrated a patient’s preference to discuss interests and hobbies (e.g. embroidery) with the other patients and nurses; and “Reasons for not seeking emotional support from nurses”¹¹ (Finding 22) in which the patient found it useless to talk about his emotions, could not find a listening party, or the need to be self-reliant (i.e. reserved about his emotions) as a man.

Included in the second category “Preference to seek emotional support from family, relatives and friends” were three findings: “Informational support and negative effects from fellow patients”¹¹ (Finding 20) which described patients preferring to discuss their disease with fellow patients who were optimistic and had good practical/experiential knowledge; “Sources of emotional support”¹¹ (Finding 21) which depicted a patient’s preference to seek emotional support from his relatives and friends; and “Support from family and friends and others”²⁵ (Finding 16) in which the patient verbalised benefitting from a good social network.

Table 6 Factors in patients that inhibit nurse-patient communication

Synthesised Finding	Categories	Findings
<p>4. Inhibiting Factors in Patients</p> <p>The evidence suggests that patients are reluctant in discussing their disease and difficult emotions, but would rather talk about neutral, everyday events. Additionally, they prefer to speak to family members, friends and fellow patients rather than healthcare professionals about their distress.</p>	<p>Patients prefer not to discuss distressing issues</p> <p>Preference to seek emotional support from family, relatives and friends</p>	<p>Cognitive avoidance and distancing²⁵ [E] (Finding 14)</p> <p>Normalization, finding meaning and living in the present²⁵ [E] (Finding 15)</p> <p>Reasons for not seeking emotional support from nurses¹¹ [E] (Finding 22)</p> <p>Informational support and negative effects from fellow patients¹¹ [E] (Finding 20)</p> <p>Sources of emotional support¹¹ [E] (Finding 21)</p> <p>Support from family and friends and others²⁵ [E] (Finding 16)</p>

The evidence suggests that patients might not wish to talk about their disease. Instead, they preferred to talk about ordinary things and normal lives. This helped them to stay optimistic. In addition, the patient's mood could also influence their desire to communicate with the nurses. It also appeared that patients may prefer to keep their problems to themselves and not burden their listeners.

Patients were inhibited in their willingness to talk to health professionals about their disease and need for emotional support. Rather than talk with health professionals, patients turned to their immediate family, friends and colleagues and other patients for emotional support.

Considering the evidence, nurses should be mindful of the patient's willingness and readiness to talk. Nurses should also ensure that patients have supportive social network and adequate resources for their emotional needs.

Discussion

The purpose of this systematic review was to establish the best available evidence on the factors affecting effective communication between registered nurses and adult oncology patients in an inpatient setting.

Primary studies in this area were limited. The extensive search of the literature did not reveal any randomised controlled trials (RCTs) relevant to the research objectives of this review. Nevertheless, RCTs were not expected as it would be ethically unacceptable not to provide effective communication to participants in a control group. Additionally, there were more qualitative studies than quantitative ones included in this review as a qualitative approach was more appropriate for the research objectives set for this review (i.e. to examine the qualities of and the factors influencing effective communication).

Only one quantitative paper²¹, two mixed method papers^{12, 22} and four qualitative papers^{11, 23-25} met the inclusion/exclusion criteria and critical appraisal standard of the review. These studies explored the factors affecting nurse-patient communication in an inpatient oncology setting from either the patients' or the nurses' perspective via questionnaires, observations and/or interviews.

Overview of results

It is evident from this review that factors affecting nurse-patient communication in an oncology setting can originate from within the patient, the nurse and the environment.

First, this review has found evidence that patients seek casual interaction during their hospitalisation.²³ While hospitalised, patients often turn to nurses for information pertaining to their disease and self-care.¹¹ Information-seeking behaviour, which promotes nurse-patient communication, is especially evident in patients who want to be actively involved in their own care.²³ Additionally, the patient's age and their aim of treatment have been noted to affect satisfaction with nurse-patient communication. In particular, older patients and patients who are on palliative treatment are more satisfied with the communication of nurses than younger patients and curatively treated patients respectively.²² As discussed by the authors²², these findings are in contrast with other studies outside of the oncology setting where poor health is associated with lower satisfaction. It is thus suggested that older palliative patients value the emotional dimension of communication more and thus are more receptive to the cue-responding behaviours of nurses, which then result in higher satisfaction levels.

In contrast, patients' unwillingness to discuss the disease and their feelings inhibits nurse-patient communication.^{11, 25} Patients are observed to seek emotional support from close family members, friends and fellow patients rather than healthcare professionals.^{11, 25} Implicit cues²², used by patients in both Western and Asian cultures to express concerns, are also considered inhibiting to effective communication. This is especially so as nurses are observed to respond rather poorly to cues.

Second, from the nurses' standpoint, this review has shown that nurses who are good facilitators of supportive communication can promote effective communication.^{11, 12} This requires them to possess good communication skills and attitudes towards communication. Positive attributes such as work competency²³ and genuineness²⁴ are also noted to promote connection/engagement between nurses and patients. Additionally, stress resulting from not providing the standard of care the patient/situation warranted is also associated with higher facilitative behaviour in nurses.¹² This, however, appeared to be linked with the nurse's ability to evaluate their own care.

When examining the role of post-basic courses in affecting nurse-patient communication, some inconsistencies have been noted. For example, nurses who have completed an oncology course were found to facilitate communication compared with nurses who have not.¹² Similarly, Advanced Practice Nurses (APNs) are significantly better at handling some challenging clinical situations than other nurses.²¹ In contrast, the reverse has also been reported, wherein nurses who have not undertaken post-basic training in communication skills have demonstrated significantly higher facilitative score and lower blocking score than those who have.¹² These conflicting findings do not provide any definitive information on the usefulness of post-basic education in enhancing effective communication.

Being task-oriented inhibits nurse-patient communication. When nurses focus more on the task than the person, communication tends to evolve around the task or takes place as part of accomplishing routine care.^{12, 23, 24} There is a lack of genuine interest and/or concern for the patients.^{23, 24} Additionally, nurses have reported perceiving more difficulty and are less skilled in addressing patients' concerns in emotionally charged situations.²¹ They are also observed to be less thorough in performing psychological compared with physical assessment.¹² They also avoid patients who are admitted with a relapse of their cancer (as compared to new or palliative patients), a circumstance which is believed to be most stressful for patients.¹² Apart from these emotion-loaded scenarios, this review has also noted that nurses who are atheists, fear their own death and have little self-awareness of their own verbal behaviours exhibited more blocking behaviours.¹² Nurses who want to speak truthfully and openly with patients but are not sure if they have the skills to do so, also exhibit poor facilitation of communication.¹²

Finally, this review has also found limited evidence that the environment can affect effective communication. As a promoter, a supportive ward environment increases the use of facilitative behaviour in nurses.¹² The existence of conflict among staff, on the other hand, increases the use of blocking behaviours.¹² In particular, nurses' inability to get their views across to the medical team results in frustration and compromises patient care. Ward sisters (nurse managers/clinicians) do, however, play an important role in maintaining a cooperative environment and encouraging nurses to communicate with their patients.¹²

Considering the cultural setting, only one study (conducted by Liu, et al.¹¹) was based in an Asian country (Beijing, China). Prominent among its findings, which differ from studies based in Western cultures, is the role of cultural norms in the Chinese society in inhibiting effective communication. These norms include the perception that psychological needs are met by close family members rather than nurses as well as

the social rule to use implicit communication with outsiders. As a result, Chinese patients are more reluctant to share their feelings and more passive in communicating their needs to nurses. The lack of further evidence from Asian countries highlights the importance of further research into the effect of the Asian culture on effective nurse-patient communication.

Limitations

Due to limited access to electronic databases, it was possible that some relevant papers which fall within the review's inclusion/exclusion criteria may be overlooked. There were also limited high quality papers available to provide insight on the review objectives. In addition, only full text papers presented in English were included in the review and therefore studies presented in a language other than English may have been omitted.

Conclusion

Within the constraints of the study and the few quality papers available, it appears that similar to other nursing environments, the personal characteristics of patients and nurses are the key influencing factors of effective nurse-patient communication in the oncology setting. Very little evidence exists on the role of environment in affecting effective nurse-patient communication, particularly within an Asian setting.

Implications for practice

From the review, several recommendations for practice have emerged which would improve communication in the oncology setting. Each of these recommendations is assigned a level of evidence according to JBI criteria (see Appendix IX).

Based on the quantitative component of the review:

- Considering the high inhibitive behaviours exhibited by nurses in emotional-loaded topics, there is a need for nurses to improve on their psychological assessment and work more closely with patients admitted with a recurrence of cancer. [Level of Evidence 3]
- Nurses encountered greater difficulty in handling certain clinical scenarios such as dealing with death, and they also seemed less confident in providing psycho-emotional care for oncology patients. Education programs can be implemented to inform nurses about these possible challenges and to develop strategies in overcoming these difficulties so as to boost their confidence level. [Level of Evidence 3]
- The evidence showed that patients are inclined to use cues in expressing their worries but nurses have responded poorly to these cues. Training may be indicated to improve nurses' communication skills and their receptivity to patient cues. [Level of Evidence 3]
- Considering that communication is affected by the context in which it is carried out and that every context is unique, there is a need to fully explore the affective factors to effective communication in each individual ward environment before implementing any strategies to improve nurse-patient communication in the ward. [Level of Evidence 3]

Based on the qualitative component of the review:

- Using the evidence presented in synthesised findings 1 and 3, which indicated a need for nurses to be equipped with good communication skills/interpersonal skills and cue-responding behaviour, training courses can be implemented to improve nurses' reception and response to patients' cues, as well as providing the skills and strategies for effective communication in the emotion-loaded oncology setting. [Level of Evidence 2]
- Using the evidence from synthesised finding 2, which highlighted nurses as a credible and assessable source of information, nurses can thus use information-sharing as a non-threatening approach to engage with patients and build rapport. Nurses should also encourage patients to ask questions and participate in their care. When rapport is established, patients are more likely to express their concerns openly and seek emotional support from the nurses. [Level of Evidence 1]
- Synthesised finding 1 called for nurses to embrace a positive attitude in communicating with the patients. Similarly, synthesised finding 3 called for a need for nurses to move away from task-orientation and provide psycho-emotional care for oncology patients through the use of effective communication. Institutions therefore need to design ward structures (ward culture and nurses' workload) that support and/or encourage nurses to be person-oriented and take responsibility for providing holistic care to patients. [Level of Evidence 2]
- Using the evidence from synthesised finding 4, which emphasised the need for right timing in communication and ensuring that patients had supportive social network, nurses should be mindful of patients' psychological readiness to communicate, as well as respect their preference as to whom they wish to share their thoughts/emotions with. Similarly, nurses can involve patients' relatives in the provision of effective social support for the patients. [Level of Evidence 1]

Implications for research

Further research in certain areas has been identified in order to better inform nursing practice on effective nurse-patient communication in an oncology setting.

- Considering the scarcity of evidence on how the environment affects effective nurse-patient communication, as well as the lack of high quality studies on nurse-patient communication conducted in the Asian oncology setting, further research (explorative descriptive studies) in this area is warranted to better understand the unique factors affecting effective communication in these cultural settings. Identification of factors could be achieved using a descriptive qualitative study, which could be later used in a randomised controlled trial.
- As the role of the patient's age and aim of treatment on influencing nurse-patient communication in the oncology setting remains unclear, further research is warranted in this area. A mixed method study using both quantitative and qualitative data collection methods would yield the necessary data.
- The lack of evidence on the effectiveness of strategies, including the effectiveness of post-basic courses on improving nurses' communication, also needs to be explored. Data would be best

gathered by a descriptive study, followed by a before-and-after randomised controlled trial to test different education programs.

Acknowledgements

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Potential conflict of interest

There are no conflicts of interest regarding this systematic review.

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Appendix I: Combination of keywords used in literature search

Database: CINAHL		
Search terms	Combinations	Results
Concept – Patient	#1 AND #3 AND #7	0
1. Inpatients *sh	#1 AND #3 AND #8	0
2. exp Patients *sh	#1 AND #4 AND #7	0
	#1 AND #4 AND #8	0
Concept – Communication		
3. exp Communication *sh	#2 AND #3 AND #7	7
4. exp Nonverbal Communication *sh	#2 AND #3 AND #8	98
5. Effective Communication	#2 AND #4 AND #7	0
6. Nurse-patient relations	#2 AND #4 AND #8	8
Concept – Oncology		
7. exp Oncology *sh	#11 AND #3 AND #7	1
8. exp Oncologic Nursing *sh	#11 AND #3 AND #8	26
9. Oncologic nursing	#11 AND #4 AND #7	12
10. Oncology OR Cancer	#11 AND #4 AND #8	0
	#5 AND #10 AND #12 in all fields	10
Concept – Nurse	#6 AND #9 in all fields	
11. exp Nurses *sh		516
12. Nurs* OR Patient*		

Database: Ovid Full Text		
Search terms	Combinations	Results
Concept – Communication	(i) #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8	
1. exp Verbal Communication/		
2. exp Communication Barriers/		
3. exp Cross Cultural Communication/	(ii) #11 OR #12	
4. exp Interpersonal Communication/		
5. exp Nonverbal Communication/	(iii) # 9 OR #10 OR #11	
6. exp Communication/		
7. exp Oral Communication/	(i) AND (ii) AND (iii)	576
8. exp Communication Skills/		
Concept – Oncology		
9. exp Oncology/		
10. exp Neoplasms/		
Concept – Nurse		
11. exp Nurses/		
12. exp Nursing/		

Database: PubMed		
Search terms	Combinations	Results
Concept – Patient 1. Inpatients/	#2 AND #4 AND (#7 OR #8)	10
Concept – Communication 2. Communication/ 3. Communication Barriers/ 4. Nurse-Patient Relations/ 5. Nonverbal Communication/ 6. Interpersonal Relations/	#3 AND #9 AND #1 #2 AND #1 AND #9 (#5 OR #6) AND #1 AND #9	0 1 3
Concept – Oncology 7. Radiation Oncology/ 8. Medical Oncology/		
Concept – Nurse 9. Oncologic nursing/		

Database: ScienceDirect		
Search terms	Combinations	Results
Concept – Communication 1. Effective communication 2. Effective communicat* 3. Communication 4. Nurse-patient communicat* 5. Nurse-patient interact*	#1 AND #6 in all fields #1 AND #7 in all fields #2 AND #7 AND (#9 OR #10) in all fields #3 AND #6 AND #9	0 612 607 1
Concept – Oncology 6. Oncology OR Cancer 7. Oncology 8. Cancer	#4 AND #7 in all fields #4 AND #8 in all fields	57 100
Concept – Nurse 9. Nurs*	#5 AND #7 in all fields #5 AND #8 in all fields	0 1
Concept – Patient 10. Patient*		

Database: Scopus		
Search terms	Combinations	Search results
Concept – Communication	#1 AND #5	685
1. Effective communicat*		
2. Communicat*	#1 AND #5 AND #9	394
3. Nurse-patient communicat*		
4. Nurse-patient interact*	#1 AND #5 AND (#9 OR #10)	634
Concept – Oncology	#2 AND #5 AND #9	0
5. Oncology OR Cancer		
6. Oncology	#3 AND #6 in all fields	127
7. Cancer	#3 AND #7 in all fields	179
Concept – Nurse		
9. Nurs*	#4 AND #6 in all fields	89
Concept – Patient		
10. Patient*	#4 AND #7 in all fields	151

Database: Wiley InterScience		
Search terms	Combinations	Search results
Concept – Communication	#1 AND #5 AND (#6 AND #7) in all subjects, in all product types	500
1. Effective communicat* in all fields		
2. Nurse-patient communicat* in all fields		
3. Nurse-patient interact* in all fields	#1 AND #5 AND #6 in all subjects, in all product types	564
4. Communicat* in all fields		
Concept – Oncology	(#2 OR #3) AND #5 in all subjects, in all product types	138
5. Oncology OR Cancer in all fields		
Concept – Nurse		
6. Nurs* in all fields	#4 AND #5 AND #6 in all subjects, in all product types	849
Concept – Patient		
7. Patient* in all fields		

Appendix II: Critical Appraisal Instruments from the JBI-SUMARI

JBI critical appraisal checklist for quantitative descriptive/case series studies:

Study:			
Criteria	Yes	No	Unclear
1. Was study based on a random or pseudo-random sample?			
2. Were the criteria for inclusion in the sample clearly defined?			
3. Were confounding factors identified and strategies to deal with them stated?			
4. Were outcomes assessed using objective criteria?			
5. If comparisons are being made, was there sufficient description of the groups?			
6. Was follow-up carried out over a sufficient time period?			
7. Were the outcomes of people who withdrew described and included in the analysis?			
8. Were outcomes measured in a reliable way?			
9. Was appropriate statistical analysis used?			
Reviewer's comments:			

Taken from Joanna Briggs Institute Reviewer's Manual 2008 edition (p. 152)

JBI critical appraisal checklist for qualitative interpretive & critical research:

Study:			
Criteria	Yes	No	Unclear
1. There is congruity btw the stated philosophical perspective and the research methodology.			
2. There is congruity btw the research methodology and the research question/objectives.			
3. There is congruity btw the research methodology and the methods used to collect data.			
4. There is congruity btw the research methodology and the representation and analysis of data.			
5. There is congruity btw the research methodology and the interpretation of results.			
6. There is a statement locating the researcher culturally or theoretically.			
7. The influence of the researcher on the research, and vice-versa, is addressed.			
8. Participants, and their voices, are adequately represented.			
9. The research is ethical according to current criteria or, for recent studies, there is evidence of ethical approval by an appropriate body.			
10. Conclusions drawn in the research report do appear to flow from the analysis, or interpretation, of the data.			
Reviewer's Comments:			

Taken from Joanna Briggs Institute Reviewer's Manual 2008 edition (p. 153)

Appendix III: Data Extraction Tool adapted from the JBI-MAStARI

Data extraction form for descriptive/case series studies:

Method	
Setting	
Participants	
# Participants	
Interventions	
Measures Used	
Outcomes	
Reviewer's Comments	

Adapted from Joanna Briggs Institute Reviewer's Manual 2008 edition (p. 157)

Appendix IV: Data Extraction Tool from the JBI-QARI

JBI data extraction form for interpretive & critical research:

Methodology	
Method	
Phenomena of Interest	
Setting	
Geographical	
Cultural	
Participants	
Data Analysis	
Author's Conclusion	
Reviewer's Comments	

Taken from Joanna Briggs Institute Reviewer's Manual 2008 edition (p. 157)

Appendix V: Data extracted from included studies

Quantitative component of the review

First author; Year	Design; Setting	Purpose	Participants	Intervention	Measures used	Outcome
Sivesind , et al. 2003	Descriptive survey; A major oncology centre in Texas	To survey the challenges nurses face in their everyday care of patients with cancer and their families.	350 nurses who worked in an oncology setting for an average of 10±7.9 years; Of the 322 participants who reported their nursing title: 65% = SNs; 14% = research nurses; 7% = NMs; and 14% = APNs.	Questionnaires were distributed to 800 potential nurse participants via interoffice mail and the nurses were asked to complete and return the questionnaires anonymously.	The questionnaire was content validated using 2 focus groups and then reviewed by a panel of experts for content and clarity.	Perceived level of difficulty and clinical skill in a variety of common clinical situations.

First author; Year	Design; Setting	Purpose	Participants	Intervention	Measures used	Outcome
Uitterhoeve, et al. 2009	Mixed method; University Medical Centre in The Netherlands	To investigate the relationship between nurses' cue-responding behaviour and patient satisfaction.	34 nurses and 100 patients participated in the study; Nurses: 28 females and 6 males from 7 medical/ surgical oncology inpatient clinics, with at least 2 years experience in oncology nursing.	Each participating nurse performed 3 video-taped conversations (each with a different cancer patient) which were then coded into patients' emotional cues and nurses' cue responses; Each patient completed 2 questionnaires preceding the videotaping and 1 questionnaire post-videotaping.	Concerns Checklist (extended version of the Heaven and Maguire version); Hospital Anxiety and Depression Scale (HADS); The Medical Interview Aural Rating Scale (MIARS).	Presence of concern or worry in patients and their perceived performance of the nurse; Level of anxiety and depression; Level of disclosure of patients' feelings and nurses' cue-responding behaviours.

First author; Year	Design; Setting	Purpose	Participants	Intervention	Measures used	Outcome
Wilkinson 1991	Mixed method; A specialist cancer hospital and a district general hospital in England.	To identify the extent to which nurses use facilitating and blocking behaviours when communicating with cancer patients; If there is a relationship between that and nurses' levels of state and trait anxiety, attitudes to death, perceived levels of social support and work environment.	56 general or enrolled nurses; Mean age was 28 years 5 months; From a variety of religion and specialty wards.	Each nurse completed a questionnaire which was processed using SPSS; Transcribed nursing histories were rated by independent psychologists using a devised coding system.	Self-administered questionnaire which included fear of death scale, Norbeck social support questionnaire and State Trait Anxiety inventory; Each verbalisation (transcribed nursing histories) was classified as either facilitative or blocking behaviour using the categories adapted from Forrest (1983), and a score of 0 to 3 was used to rate the nurses' coverage of the 7 key areas of the nursing history.	Attitudes to death; Perceived levels of social support and work environment; Level of state and trait anxiety; The extent to which nurses use facilitative and blocking behaviours.

Qualitative component of the review

First author; Year	Methodology; Setting; Geographical; Cultural	Method	Phenomena of interest	Participants	Data analysis	Author's conclusion
Bertero, et al. 1996	Grounded theory; Haematology ward in a hospital; Sweden; Inpatient adults with leukaemia	Participant to passive observation; Tape-recorded nurse-patient interactions; Field notes.	To document interaction between leukaemia patients and nursing staff; To identify care supplied by the nursing staff; To identify care demanded by the patients.	3 male and 1 female patients; Aged between 31 and 61; Were receiving chemotherapy.	Narrative data were transcribed verbatim and analysed using constant comparative technique of Hutchinson's three-level coding.	There was a great diversity between care demanded by patients (i.e. human interactions) and care supplied by nurse (i.e. routine service, collecting information, giving information and medical-technical procedures).

First author; Year	Methodology; Setting; Geographical; Cultural	Method	Phenomena of interest	Participants	Data analysis	Author's conclusion
Bottorff, et al. 1994	No explicit stated methodology, but mentioned "ethology" (i.e. a method used to identify complex behavioural patterns through systematic observation and description under natural conditions); A private room on an active treatment oncology ward; Geographically and culturally not specified.	Observation: videotaped nurse-patient interactions; Unstructured interviews	To identify the types of nurse-patient interactions in which touching behaviours were used.	Convenience sample of 8 cancer patients (3 females and 5 males) and 32 nurses.	Videotaped data were coded and an ethogram (detailed textual description of the behaviour patterns) was developed; Interview data were transcribed and analysed thematically.	4 types of attending (doing more, doing for, doing with and doing tasks) were identified.

First author; Year	Methodology; Setting; Geographical; Cultural	Method	Phenomena of interest	Participants	Data analysis	Author's conclusion
Kvåle 2007	Phenomenology – Giorgi; Inpatient cancer ward in a university hospital; Norway; Culturally not specified.	In-depth unstructured interviews.	To ascertain if cancer patients in an oncology ward want to talk about their feelings and difficult emotions regarding the disease and their future while they are inpatients, and why.	Purposive sample of 10 women and 10 men; 40 - 70 years old; Aware of their diagnoses; Admitted for treatment with palliative or curative intention.	Interviews were tape-recorded, transcribed and analysed using Giorgi's step by step approach.	Cancer patients most often did not want to talk to the nurses in the ward about their difficult emotions regarding the disease and the future. The patients preferred to talk about normal life, their hobbies and their families. However, the patients also wanted an offer to talk about their difficult emotions, but they themselves wanted to choose whom and when. Patient's emotional and spiritual needs may vary according to culture, socioeconomic group and stage of the disease.

First author; Year	Methodology; Setting; Geographical; Cultural	Method	Phenomena of interest	Participants	Data analysis	Author's conclusion
Liu, et al. 2005	No explicit stated methodology, but took a qualitative approach to data collection and analysis; 2 of the largest oncology hospitals in Beijing, China; Participants were Beijing local citizens or people mainly from northern and middle China.	Face-to-face semi-structured interviews.	To explore the perceptions and expectations of supportive communication in hospitalised Chinese cancer patients.	Convenience sample of 20 patients (10 women and 10 men); 27 – 69 years old; Aware of their diagnosis.	Tape recorded interviews were transcribed verbatim and analysed using content analysis.	Nurses need to communicate their roles to patients and make clear that their focus is holistic, paying attention to physical and psychological needs. They need to meet patients' needs for information and customise info accordingly to patients' educational level and preferences. They should also provide privacy for family members to communicate with patients.

First author; Year	Methodology; Setting; Geographical; Cultural	Method	Phenomena of interest	Participants	Data analysis	Author's conclusion
Wilkinson 1991	Mixed method; A specialist cancer hospital and a district general hospital; England; Registered general or enrolled nurses working on the designated ward as a permanent member of staff during the day shifts.	Tape-recorded nursing histories; Semi-structured interview with nurses; Field notes on the ward environment and the nursing practice being carried out.	If the nurses are aware that the verbal behaviours they use are blocking or facilitating; Nurses' views and feelings about communicating with cancer patients.	56 general or enrolled nurses; Mean age was 28 years 5 months; From a variety of religion and specialty wards.	Tape-recorded nursing histories were transcribed and rated by independent experienced psychologists using a devised coding system; Semi-structured interviews were transcribed and thematically analysed.	Different styles in communication (Facilitators, Ignorers, Informers and Mixers) were identified. Most nurses used a variety of blocking tactics to prevent patients from divulging their problems. At the time of a recurrence, nurses appeared to recoil the most from patients.

Appendix VI: Excluded studies

Quantitative papers excluded during article selection:

Reid-Ponte P. Distress in cancer patients and primary nurses' empathy skills. *Cancer Nursing*. 1992;15(4):283-92.

Reason for exclusion: Focused on the relationship between nurses' empathy and patients' distress.

Qualitative papers excluded during article selection:

Bakker DA, Fitch MI, Gray R, Reed E, Bennett J. Patient-health care provider communication during chemotherapy treatment: the perspectives of women with breast cancer. *Patient Education and Counseling*. 2001;43(1):61-71.

Reason for exclusion: Outpatient setting. Healthcare professionals analysed as a whole (not specific to nurses).

Barthow C, Moss C, McKinlay E, McCullough L, Wise D. To be involved or not: Factors that influence nurses' involvement in providing treatment decisional support in advanced cancer. *European Journal of Oncology Nursing*. 2009;13(1):22-8.

Reason for exclusion: Included both ambulatory and community settings.

Doumit MAA, Abu-Saad HH. Lebanese cancer patients: communication and truth-telling preferences. *Contemporary Nurse: A Journal for the Australian Nursing Profession*. 2008;28(1-2):74-82.

Reason for exclusion: Focused on truth-telling preferences. Healthcare professionals as a whole (not specific to nurses).

Drew A, Fawcett TN. Responding to the information needs of patients with cancer. *Professional Nurse*. 2002;17(7):443-6.

Reason for exclusion: (Full text retrieved due to brief abstract) An opinion piece.

Edvardsson D, Sandman PO, Rasmussen B. Caring or uncaring - Meanings of being in an oncology environment. *Journal of Advanced Nursing*. 2006;55(2):188-97.

Reason for exclusion: Focused on what the environment communicates (not how the environment affects communication).

King L, Quinn GP, Vadaparampil ST, Gwede CK, Miree CA, Wilson C, et al. Oncology nurses' perceptions of barriers to discussion of fertility preservation with patients with cancer. *Clinical Journal of Oncology Nursing*. 2008;12(3):467-76.

Reason for exclusion: Outpatient setting.

Maguire P. Improving communication with cancer patients. *European Journal of Cancer*. 1999;35(14):2058-65.

Reason for exclusion: (Full text retrieved due to brief abstract) A review. Not specific to nurse-patient communication, but mixed with physicians and patients' families.

Medoff E, Houldin AD, Stricker CT, Anderson S, Chertkov L. Communication Challenges in a Young Man with Hodgkin's Disease. *Cancer Practice*. 2001;9(6):272-6.

Reason for exclusion: (No abstract, so full text was retrieved) A case study/opinion piece.

Thomsen DK, Pedersen AF, Johansen MB, Jensen AB, Zachariae R. Breast cancer patients' narratives about positive and negative communication experiences. *Acta Oncologica*. 2007;46(7):900-8.

Reason for exclusion: Focused on treatment experiences. 'Staff' mostly included physicians. Setting is unclear.

Qualitative papers excluded during critical appraisal:

Botti M, Endacott R, Watts R, Cairns J, Lewis K, Kenny A. Barriers in providing psychosocial support for patients with cancer. *Cancer Nursing*. 2006;29(4):309-16.

Reason for exclusion: Not grounded on any philosophical perspective. General aim. Unclear data collection, analysis and interpretation. Conclusions did not appear to flow from data.

Dennison S. An exploration of the communication that takes place between nurses and patients whilst cancer chemotherapy is administered. *Journal of Clinical Nursing*. 1995;4(4):227-33.

Reason for exclusion: Qualitative approach, but not based on any philosophical perspective or methodology. Observations were used, but analysis and interpretation were questionable. No themes derived. Voices of participants were not adequately represented.

Hitch PJ, Murgatroyd JD. Professional communications in cancer care: a Delphi survey of hospital nurses. *Journal of Advanced Nursing*. 1983;8(5):413-22.

Reason for exclusion: Delphi survey, but main focus is on quantifying. General aim was to generate comprehensive problem checklist. This paper was part of a larger study – it was unclear if ethical approval was obtained and there was no mention of getting informed consent from the participants. Data analysis and interpretation were questionable. Voices of participants were not adequately represented. No mention of informed consent.

Lotzkar M, Bottorff JL. An observational study of the development of a nurse-patient relationship. *Clinical Nursing Research*. 2001;10(3):275-94.

Reason for exclusion: An ethological study with a general aim. Data analysis and interpretation of results appeared unsound. Focus group data was not represented.

Appendix VII: Final critical appraisal assessment of included studies

Quantitative component of the review

Included Study 1:			
Sivesind D, Parker PA, Cohen L, DeMoor C, Bumbaugh M, Throckmorton T, et al. Communicating with Patients in Cancer Care: What Areas Do Nurses Find Most Challenging? Journal of Cancer Education. 2003;18(4):202-9.			
Criteria	Yes	No	Unclear
1. Was study based on a random or pseudo-random sample?			X
2. Were the criteria for inclusion in the sample clearly defined?	X		
3. Were confounding factors identified and strategies to deal with them stated?	X		
4. Were outcomes assessed using objective criteria?			X
5. If comparisons are being made, was there sufficient descriptions of the groups?			X
6. Was follow-up carried out over a sufficient time period?			X
7. Were the outcomes of people who withdrew described and included in the analysis?			X
8. Were outcomes measured in a reliable way?			X
9. Was appropriate statistical analysis used?	X		
Reasons: Inclusion criteria were clear. Confounding factors were dealt with. Focus group used for content validation of questionnaire. Statistical analysis was sound.			

Included Study 2:			
Uitterhoeve R, Bensing J, Dilven E, Donders R, deMulder P, van Achterberg T. Nurse-patient communication in cancer care: Does responding to patient's cues predict patient satisfaction with communication. Psycho-Oncology. 2009;18(10):1060-8.			
Criteria	Yes	No	Unclear
1. Was study based on a random or pseudo-random sample?			X
2. Were the criteria for inclusion in the sample clearly defined?	X		
3. Were confounding factors identified and strategies to deal with them stated?	X		
4. Were outcomes assessed using objective criteria?	X		
5. If comparisons are being made, was there sufficient descriptions of the groups?			X
6. Was follow-up carried out over a sufficient time period?			X
7. Were the outcomes of people who withdrew described and included in the analysis?			X
8. Were outcomes measured in a reliable way?	X		
9. Was appropriate statistical analysis used?	X		
Reasons: 2 validated instruments and 1 extended. Questionnaires administered by researcher. Video coded by trained persons. Statistical analysis was sound.			

Included Study 3: Wilkinson S. Factors which influence how nurses communicate with cancer patients. *Journal of Advanced Nursing*. 1991;16(6):677-88.

Criteria	Yes	No	Unclear
1. Was study based on a random or pseudo-random sample?	X		
2. Were the criteria for inclusion in the sample clearly defined?	X		
3. Were confounding factors identified and strategies to deal with them stated?		X	
4. Were outcomes assessed using objective criteria?	X		
5. If comparisons are being made, was there sufficient descriptions of the groups?			X
6. Was follow-up carried out over a sufficient time period?			X
7. Were the outcomes of people who withdrew described and included in the analysis?			X
8. Were outcomes measured in a reliable way?	X		
9. Was appropriate statistical analysis used?	X		

Reasons: Random sample. Validated instrument. Self-administered questionnaires. Outcomes measures in a reliable way. Sound statistical analysis. To do a narrative description of it.

Qualitative component of the review

Included Study 1:
Bertero C, Eriksson B, Ek A. Demanding interaction-given routines: An observational study on leukaemia patients and their nursing staff. *International Journal of Nursing Practice*. 1996;2(4):201-8.

Criteria	Yes	No	Unclear
1. There is congruity btw the stated philosophical perspective and the research methodology.			X
2. There is congruity btw the research methodology and the research question/objectives.	X		
3. There is congruity btw the research methodology and the methods used to collect data.	X		
4. There is congruity btw the research methodology and the representation and analysis of data.		X	
5. There is congruity btw the research methodology and the interpretation of results.		X	
6. There is a statement locating the researcher culturally or theoretically.		X	
7. The influence of the researcher on the research, and vice-versa, is addressed.		X	
8. Participants, and their voices, are adequately represented.	X		
9. The research is ethical according to current criteria or, for recent studies, there is evidence of ethical approval by an appropriate body.	X		
10. Conclusions drawn in the research report do appear to flow from the analysis, or interpretation, of the data.	X		

Reasons: A good grounded theory paper. Focus on communication between nurses and leukaemia patients in haematology ward in Sweden. Observation, field notes n follow-up interviews used. Constant comparative method and Hutchinsons's 3-level coding used for analysis. However, themes instead of theory were generated.

Included Study 2: Bortoff JL, Morse JM. Identifying Types of Attending: Patterns of Nurses' Work. Journal of Nursing Scholarship. 1994;26(1):53-60.			
Criteria	Yes	No	Unclear
1. There is congruity btw the stated philosophical perspective and the research methodology.			X
2. There is congruity btw the research methodology and the research question/objectives.			X
3. There is congruity btw the research methodology and the methods used to collect data.	X		
4. There is congruity btw the research methodology and the representation and analysis of data.	X		
5. There is congruity btw the research methodology and the interpretation of results.	X		
6. There is a statement locating the researcher culturally or theoretically.		X	
7. The influence of the researcher on the research, and vice-versa, is addressed.		X	
8. Participants, and their voices, are adequately represented.	X		
9. The research is ethical according to current criteria or, for recent studies, there is evidence of ethical approval by an appropriate body.		X	
10. Conclusions drawn in the research report do appear to flow from the analysis, or interpretation, of the data.	X		
Reasons: Ethological method. General purpose. Used observational method to investigate nurse-patient interactions. Voices from observations and interviews were represented. Sound data collection, analysis and interpretation. Mentioned informed consent, but no ethical clearance from ethics committee was obtained (acceptable since it was ethical according to current criteria).			

Included Study 3: Kvåle K. Do cancer patients always want to talk about difficult emotions? A qualitative study of cancer inpatients communication needs. European Journal of Oncology Nursing. 2007;11(4):320-7.			
Criteria	Yes	No	Unclear
1. There is congruity btw the stated philosophical perspective and the research methodology.	X		
2. There is congruity btw the research methodology and the research question/objectives.	X		
3. There is congruity btw the research methodology and the methods used to collect data.	X		
4. There is congruity btw the research methodology and the representation and analysis of data.	X		
5. There is congruity btw the research methodology and the interpretation of results.	X		
6. There is a statement locating the researcher culturally or theoretically.	X		
7. The influence of the researcher on the research, and vice-versa, is addressed.	X		
8. Participants, and their voices, are adequately represented.	X		
9. The research is ethical according to current criteria or, for recent studies, there is evidence of ethical approval by an appropriate body.	X		
10. Conclusions drawn in the research report do appear to flow from the analysis, or interpretation, of the data.	X		
Reasons: Husserl's phenomenology - Giorgi was used. Interviews conducted to investigate patient's preference on communicating feelings and emotions. Influence of researcher was addressed. Good concluding summary. Met all 10 items on the assessment tool.			

Included Study 4:			
Liu J-E, Mok E, Wong T. Perceptions of supportive communication in Chinese patients with cancer: Experiences and expectations. Journal of Advanced Nursing. 2005;52(3):262-70.			
Criteria	Yes	No	Unclear
1. There is congruity btw the stated philosophical perspective and the research methodology.			X
2. There is congruity btw the research methodology and the research question/objectives.			X
3. There is congruity btw the research methodology and the methods used to collect data.	X		
4. There is congruity btw the research methodology and the representation and analysis of data.	X		
5. There is congruity btw the research methodology and the interpretation of results.	X		
6. There is a statement locating the researcher culturally or theoretically.		X	
7. The influence of the researcher on the research, and vice-versa, is addressed.		X	
8. Participants, and their voices, are adequately represented.	X		
9. The research is ethical according to current criteria or, for recent studies, there is evidence of ethical approval by an appropriate body.	X		
10. Conclusions drawn in the research report do appear to flow from the analysis, or interpretation, of the data.	X		
Reasons: Qualitative approach. Semi-structured interviews were used. Thematic analysis and interpretation of results were sound. Adequate voices. Ethics approval obtained.			

Included Study 5:			
Wilkinson S. Factors which influence how nurses communicate with cancer patients. Journal of Advanced Nursing. 1991;16(6):677-88.			
Criteria	Yes	No	Unclear
1. There is congruity btw the stated philosophical perspective and the research methodology.			X
2. There is congruity btw the research methodology and the research question/objectives.	X		
3. There is congruity btw the research methodology and the methods used to collect data.			X
4. There is congruity btw the research methodology and the representation and analysis of data.			X
5. There is congruity btw the research methodology and the interpretation of results.			X
6. There is a statement locating the researcher culturally or theoretically.		X	
7. The influence of the researcher on the research, and vice-versa, is addressed.		X	
8. Participants, and their voices, are adequately represented.	X		
9. The research is ethical according to current criteria or, for recent studies, there is evidence of ethical approval by an appropriate body.		X	
10. Conclusions drawn in the research report do appear to flow from the analysis, or interpretation, of the data.	X		
Reasons: Philosophical perspective not defined. Mixed method. Although no ethics approval obtained (but sounded ethical according to current criteria). Worth including.			

Appendix VIII: JBI Levels of Credibility for qualitative studies

<u>Level of Credibility</u>	<u>Definition</u>
1. Unequivocal [E]	Relates to evidence beyond reasonable doubt which may include findings that are matter of fact, directly reported/observed and not open to challenge.
2. Credible [C]	Those that are, albeit interpretations, plausible in light of data and theoretical framework. They can be logically inferred from the data. Because the findings are interpretive they can be challenged.
3. Not Supported	When 1 nor 2 apply and when most notably findings are not supported by the data.

Taken from the Joanna Briggs Institute - Comprehensive Systematic Review Training Program Manual: Module 4 Systematic review of evidence generated by qualitative research, narrative and text (p. 69)

Appendix IX: JBI Levels of Evidence - recommendations for practice

<u>Level of Evidence</u>	<u>Feasibility</u> F (1-4)	<u>Appropriateness</u> A (1-4)	<u>Meaningfulness</u> M (1-4)	<u>Effectiveness</u> E (1-4)
1.	Meta-synthesis of research with unequivocal synthesised findings	Meta-synthesis of research with unequivocal synthesised findings	Meta-synthesis of research with unequivocal synthesised findings	Meta-analysis (with homogeneity) of experimental studies (eg RCT with concealed randomisation) OR One or more large experimental studies with narrow confidence intervals
2.	Meta-synthesis of research with credible synthesised findings	Meta-synthesis of research with credible synthesised findings	Meta-synthesis of research with credible synthesised findings	One or more similar RCTs with wider confidence intervals OR Quasi-experimental studies (without randomisation)
3.	a. Meta-synthesis of text/opinion with credible synthesised findings b. One or more single research studies of high quality	a. Meta-synthesis of text/opinion with credible synthesised findings b. One or more single research studies of high quality	a. Meta-synthesis of text/opinion with credible synthesised findings b. One or more single research studies of high quality	a. Cohort studies (with control group) b. Case-controlled c. Observational studies (without control group)
4.	Expert opinion	Expert opinion	Expert opinion	Expert opinion, or physiology bench research, or consensus

Taken from the Joanna Briggs Institute - Comprehensive Systematic Review Training Program Manual: Module 4 Systematic review of evidence generated by qualitative research, narrative and text (p. 84)