

DOI: 10.21767/2574-2825.100013

The Nurse as the Discussion Opener During Ward Rounds: An Observation Study in the Wards of a Finnish University Hospital

Kaija Leino*, Elina Mattila, Pekka Collin and Juhani Sand

Division of Surgery, Gastroenterology and Oncology, Tampere University Hospital, Finland

*Corresponding author: Kaija Leino, Division of Surgery, Gastroenterology and Oncology, Tampere University Hospital, Tampere, Finland, Tel: +358 407312377; E-mail: kaija.leino@pshp.fi

Received Date: Apr 12, 2017; Accepted Date: May 09, 2017; Published Date: May 14, 2017

Citation: Leino K, Mattila E, Collin P, et al. The Nurse as the Discussion Opener During Ward Rounds: An Observation Study in the Wards of a Finnish University Hospital. J Nurs Health Stud. 2017, 2:2.

Abstract

Background: Ward rounds serve as a forum for sharing information between the patient and health care professionals. In order to ensure the multiprofessional nature of the rounds, the nurse's expertise and knowledge of the patient's situation is needed. The nurse's presence during the ward rounds is necessary to ensure patient satisfaction and the quality of the patient's treatment, even though nurses rarely participate in discussions during the ward rounds.

Aim: To describe how active nurses are as discussion openers during ward rounds and to compare the activity of nurses working in different specialties as discussion openers, in addition to investigating the significance of background factors.

Methods: The data were collected in a Finnish university hospital in 2012-2013 by observing ward round situations with patients (N=365) on different speciality wards using an observation form.

Results: The nurses were fairly passive in initiating discussions about the patient's physical status and passive in opening a discussion on the patient's psychological status. The nurses were passive in opening discussions concerning the planning or evaluation of the patient's treatment. Nurses specializing in gastric surgery or internal medicine in gastroenterology initiated discussions more actively than nurses in other specialties. Nurses opened discussions more often in the context of emergency care patients than in connection with patients who had arrived at the hospital for an elective procedure.

Conclusion: Nurses should use their expertise in opening discussions on the patient's physical and psychological state, as well as decision-making regarding the planning and evaluation of treatment. Support from managers in different professional groups is important for increasing the participation of nurses during ward rounds. In the future, it would be interesting to study the shared experience of nurses, physicians and patients regarding

the ward rounds, as well as the patients' own experiences.

Keywords: Nurse; Patient; Opening discussion; Ward rounds; Observational study

Introduction

Ward rounds have remained a nearly unchanged and frequent practice for years. They serve as a forum for sharing information between the patient and health care professionals [1]. Ward rounds include reviewing the patient's medical history and a physical examination, the refining of diagnoses, as well as and the planning of treatments and subsequent discharge [2]. Research on the ward round as a social practice and its significance to those participating in it is scarce. The ward round is a complex phenomenon in which the various participants have different interests-the doctor, nurse and patient experience the ward round differently. The doctor needs information about the patient's background and symptoms in order to make the right medical decisions. The nurses approach the patient from the perspective of interaction and knowledge. The patient concentrates on the experience of his illness and how that experience affects his life [3]. The current practice has been demonstrated to have negative effects on both the patient and the personnel attending the rounds [2,4]. The pressure to develop and improve efficiency challenges us to evaluate the division of tasks during ward rounds and the role of the participants [1-5]. The interaction between the nurse and the physician is affected by the fact that the physician is traditionally the leader of the rounds [6,7]. The nurse experiences a feeling of detachment during the rounds due to the different educations of the physician and the nurse, as well as lack of communication [8]. The nurse's presence during the ward rounds is necessary to ensure patient satisfaction and the quality of the patient's treatment even though nurses rarely participate in discussions during the ward rounds [9-12].

The nurse's task during the rounds is to act as an interpreter between the physician and the patient as well as to provide information to the patient about issues that are still unclear. In addition, the nurse's role is to encourage the patient to ask

about their treatment so that the patient's viewpoint will be taken into account during the rounds [1,13]. It has been noted that physicians do not sufficiently appreciate the nurse's expertise during ward rounds [5,7,10,14]. Nurses also experience a lack of respect and autonomy on the part of the physicians during the ward rounds, and their views about the patient's care are not listened to [10,11,15]. In order to ensure the multiprofessional nature of the rounds, the nurse's expertise and knowledge of the patient's overall situation is needed [1,5]. Research knowledge on ward rounds and their content exists, but the optimal organization and implementation of the ward round procedure in the context of present-day health care has not been studied sufficiently [3]. More research is also needed on the participation and involvement of nurses during rounds. The purpose of the current study was to describe the activeness of nurses as discussion openers during ward rounds. In addition, the study describes differences between nurses in different specialties regarding their activeness in opening discussions, as well as the relations between patients' background and demographic factors and the nurses' activeness in opening discussions. In this study, a discussion opener is defined as a person who initiates the discussion about the patient's situation during the ward round. The research questions were: how actively do nurses open a discussion during ward rounds on a) matters related to the patient's physical situation, b) matters related to the patient's psychological situation, and c) matters related to the planning and evaluation of the patient's treatment; how does the nurses' activeness as discussion openers during ward rounds differ between various specialties; and how is the patients' background information connected to the activeness of nurses as discussion openers during ward rounds?

Methods

The research data were collected between November 2012 and March 2013 by observing the ward round situations of ward patients (N=365) in different specialty units in a Finnish university hospital. The patients were treated in a gastric surgery and gastroenterology context on internal medicine wards (3 wards) as well as on the urology ward (1 ward) and oncology wards (2 wards).

An observation form was developed for data collection based on a literature review of research on ward rounds [5] as well as expert practical knowledge of physicians and nurses. In the form, the matters discussed during rounds were divided into categories involving the patient's physical status (7 questions) and psychological status (6 questions), as well as the planning and evaluation of treatment (4 questions). The observation form was piloted during the ward round situations of ten patients before the actual data collection was commenced. The piloted data were not included in the actual data.

The observations were carried out by nurses (n=5) who were familiar with the operations of the wards but who did not frequently work on the wards in question. The researchers guided the nurses personally on how to carry out the observation task by explaining the questions on the

observation form. The observer recorded on the form who initiated the discussion about matters related to the patient's physical and mental situation and to the planning and evaluation of the treatment. The form also included the option 'the matter was not discussed'. The patient's sex, age and mode of arrival at the hospital, as well as the treatment day in question, surgery performed (yes/no), room type and specialty were noted down on the observation form as background information on the patient.

Analysis

The data were analysed with the statistics software SPSS for Windows 17.0. Frequency and percentage distributions as well as key figures describing location and deviation (mean, range) were analysed. For the descriptive analysis, the percentages of discussions that nurses in different specialties opened were calculated in relation to matters discussed during the ward rounds. After this, the activeness of nurses in opening discussions was classified by specialty in the following way: 0% to 9% of discussions was opened by a nurse=passive, 10% to 19%=fairly passive, 20% to 49%=fairly active, and 50% to 100%=active. The activeness limits were defined by examining data (median and quartiles) because there was no earlier research information available in the limits. The total activeness of nurses regarding each matter discussed during the rounds was determined by adding up the variable values and by dividing the sum with the number of patient specialties [4]. Associations between variables were examined by cross-tabulation, the chi-square test and one-directional variance analysis (Bonferroni correction in post hoc analysis) (Bettany-Saltikov and Whittaker 2014). The threshold for statistical significance was set at $p < 0.05$ (Munro, 2005), and only these values are reported in the results section.

Reliability

The study method used was observation, as it is suitable for studying human behaviour and interaction situations [16-18]. The data were collected from different specialization units, and the sample size can be considered representative for examining the subject of the study. The study was conducted in only one organization, making the results tentative. The validity of the observation form was ensured by involving nurses and physicians in the design process of the form and having them evaluate its suitability and understandability as a data collection method during ward rounds. The form was piloted before the data were collected, verifying the suitability of the content and the time needed for observing ward rounds. The objectivity of the observation was increased by using several observers [19]. The researchers discussed the procedure with the observers several times during the data collection, which ensured that the observation was carried out systematically in the selected units. To avoid biased observations, the nurses did not observe the ward rounds in their own unit. The observers were consistent because they had long work experience in the same area in gastric surgery, internal medicine in gastroenterology, urology, and oncology. The validity of the study was increased by the observers

writing down their observations on the observation form during the ward rounds. The observers participated in the rounds passively as external observers, enabling them to observe the overall picture regarding the nurse's participation in the rounds. The aim was that the ward round participants would act naturally despite being observed.

Ethics

The study was conducted in accordance with good scientific practice and research ethical guidelines [20,21]. The ethics committee approved the study (R 12242) on 6 November 2012 and a chief senior physician gave permission to collect data. Ward patients, nurses and physicians were informed orally and in writing about the period of observation and the voluntary nature of participation. None of the nurses declined to be observed. The observation did not cause harm to the patient

or the participant of the rounds. Names were not written down on the observation forms, maintaining the anonymity of the participants. The study used an ethically valid data collection method, and the results were openly reported on a group level, making it impossible to identify individual participants [22].

Results

Background information of patients and observers

The background information of the patients was compiled from patient documents. All the observers were Finnish female nurses (**Tables 1 and 2**).

Table 1 Background information of patients who were present in the observation events (n=365).

Background item	n	%	mean	range	SD
Sex					
Female	151	41			
Male	214	59			
Age (years)			60	16-93	18
From emergency dept. to the ward	235	65			
Electively to the ward	128	35			
Conservative treatment	235	65			
Operative treatment	130	35			
Treatment day		7	1-300		
Room size 1-2	191	53			
Room size 3	171	47			
Gastric surgery patients	122	33			
Urological patients	52	14			
Gastroenterological patients (internal)	101	28			
Oncological patients	90	25			

Table 2 The background information of the observers.

Observer	Age	Education/Profession	Work experience
observer1	52	RN /nurse	28 years
observer2	50	RN/nurse	20 years
observer3	55	RN/nurse	27 years
observer4	35	RN/nurse	10 years
observer5	46	RN/nurse	24 years

The activeness of nurses as discussion openers during ward rounds

Overall, nurses opened a discussion during ward rounds most actively regarding the physical status of the patient and most passively regarding the planning and evaluation of the patient's treatment (Tables 3-5).

The patient's physical status: Nurses were fairly active in opening a discussion about issues related to the patient's wound care as well as blood pressure management and temperature. However, nurses were fairly passive or passive in

opening discussions about the patient's pain management, nutrition, catheters, drains as well as urination and bowel function and medication (Table 3).

The patient's psychological status: Nurses opened the discussion fairly actively on the patient's need for special workers. However, they were fairly passive in opening a discussion on the patient's substance use, family or life situation as well as rest and sleeping. Nurses were passive in opening discussions on the patient's mood and feelings (Table 4).

Table 3 Discussions opened by nurses and activeness of physical status discussions.

Physical status	A=nurses of gastric surgery patients B=nurses of urological patients C=nurses of gastroenterology patients D=nurses of oncological patients (n)		Patient background information (significant connection to the activeness of nurses in opening discussions)
Pain	A=23 Fairly active B=4 Passive C=15 Fairly passive D=6 Passive	FAIRLY PASSIVE	More active with emergency patients ($p<0.001$) More active with patients who have been longer in ward treatment (≥ 4 days) ($p<0.001$) More active in rooms with several (≥ 3) patients ($p<0.001$)
Wound care	A=11 Fairly Passive B=9 Passive C=40 Fairly active D=33 Fairly active	FAIRLY ACTIVE	More active with men ($p=0.037$) More active with emergency patients ($p<0.001$) More active with patients in conservative treatment ($p=0.001$) More active with patients who have been in ward treatment for a shorter time (1-3 days) ($p<0.001$)
Nutrition	A=15 Fairly passive B=15 Fairly passive C=21 Fairly active D=20 Fairly passive	FAIRLY PASSIVE	More active with men ($p=0.014$) More active with patients in conservative treatment ($p<0.001$) More active with patients who have been in ward treatment for a shorter time (1-3 days) ($p=0.014$) More active in rooms of 1-2 patients ($p=0.019$)
Catheters and drains	A=15 Fairly passive B=17 Fairly passive C=19 Fairly passive D=18 Fairly passive	FAIRLY PASSIVE	More active with surgical patients ($p<0.001$)
Medication	A=11 Fairly passive B=4 Passive C=23 Fairly active D=5 Passive	PASSIVE	More active with emergency patients ($p<0.001$) More active with surgical patients ($p=0.037$) More active with patients who have been in ward treatment for longer (≥ 4 days) ($p<0.001$)
Blood pressure, pulse and temperature	A=29 Fairly active B=35 Fairly active C=34 Fairly active D=12 Fairly passive	FAIRLY ACTIVE	More active with emergency patients ($p<0.001$)
Urination and bowel function	A=22 Fairly active B=15 Fairly passive C=26 Fairly active D=17 Fairly passive	FAIRLY PASSIVE	More active with emergency patients ($p=0.014$) More active with surgical patients ($p<0.001$) More active with patients who have been in ward treatment for longer (≥ 4 days) ($p=0.037$)

			More active in rooms with several (≥ 3) patients (p<0.001)
--	--	--	---

Table 4 Discussions opened by nurses and activeness of psychological status discussions.

Psychological status	A= nurses of gastric surgery patients B= nurses of urological patients C= nurses of gastroenterology patients D= nurses of oncological patients (n)		Patient background information (significant connection to the activeness of nurses in opening discussions)
Mood	A=6 Passive B=8 Passive C=11 Fairly passive D=8 Passive	PASSIVE	More active with emergency patients (p<0.001)
Feelings caused by the situation	A=4 Passive B=0 Passive C=19 Fairly passive D=0 Passive	PASSIVE	More active with emergency patients (p=0.006)
Substance use	A=50 Active B=0 Passive C=18 Fairly passive D=0 Passive	FAIRLY PASSIVE	More active with emergency patients (p=0.019) More active with surgical patients (p=0.007) More active with patients who have been in ward treatment for longer (≥ 4 days) (p<0.001) More active in rooms with several (≥ 3) patients (p<0.001)
Family and life situation	A=27 Fairly active B=0 Passive C=11 Fairly passive D=7 Passive	FAIRLY PASSIVE	More active with emergency patients (p<0.001)
Need for special workers	A=25 Fairly active B=20 Fairly active C=33 Fairly active D=33 Fairly active	FAIRLY ACTIVE	More active with patients in conservative treatment (p=0.004) More active with patients who have been in ward treatment for a shorter time (1-3 days) (p<0.001)
Rest and sleeping	A=23 Fairly active B=0 Passive C=25 Fairly active D=17 Fairly passive	FAIRLY PASSIVE	More active with emergency patients (p <0.001) More active with patients who have been in ward treatment for longer (≥ 4 days) (p<0.001)

Table 5 Discussions opened by nurses and activeness of planning and evaluation of treatment discussions.

Planning and evaluation of treatment	A= nurses of gastric surgery patients B= nurses of urological patients C= nurses of gastroenterology patients D= nurses of oncological patients (n)		Patient background information (significant connection to the activeness of nurses in opening discussions)
Findings	A=2 Passive B=2 Passive C=3 Passive D=0 Passive	PASSIVE	More active with elective patients (p<0.001)
Disease progression	A=6 Passive B=5 Passive C=3 Passive D=0 Passive	PASSIVE	-

Discharge	A=2 Passive B=0 Passive C=6 Passive D=0 Passive	PASSIVE	-
Follow-up treatment	A=2 Passive B=0 Passive C=4 Passive D=2 Passive	PASSIVE	More active with patients in conservative treatment (p=0.049)

Planning and evaluation of the patient's treatment: Nurses were passive in opening a discussion on findings, disease progression, discharge and follow-up treatment (**Table 5**).

The activeness of nurses as discussion openers during ward rounds with regard to specialties

The activeness of opening a discussion on pain management differed significantly between nurses in different specialties ($p=0.006$). Nurses of gastric surgery patients opened a discussion on the patient's pain management more actively than nurses in other specialties (**Table 3**). Nurses of patients in gastroenterology and oncology were active in opening a discussion on the patient's wound care ($p<0.001$) (**Table 3**).

Nurses of gastroenterology patients were the most active in opening a discussion on the patient's nutritional issues ($p<0.001$). However, there was no significant difference between nurses in different specialties in regard to opening a discussion on catheters or drains. Nurses of gastroenterological patients in internal medicine were more active than others in opening a discussion on medication, while urological and oncological nurses were passive in opening a discussion on medication ($p<0.001$). Nurses of gastric surgery, urology and gastroenterology in internal medicine patients opened a discussion on the patient's blood pressure, pulse, temperature, urination and bowel function more often than oncology nurses ($p=0.019$) (**Table 3**).

Nurses of gastroenterology patients in the internal medicine unit opened a discussion on the patient's mood ($p<0.001$) and feelings caused by the situation ($p=0.021$) more often than other nurses. Regarding the patient's substance use, the most active discussion openers were gastric surgery nurses ($p<0.001$). Nurses of urological and oncological patients, on the other hand, did not open a discussion on the patient's substance use at all. The most active in opening a discussion on the patient's family and life situation were nurses of gastric surgery patients ($p<0.001$). All nurses were active discussion openers of the patient's need for special workers ($p<0.001$) (**Table 4**). The most active in opening a discussion on the patient's rest and sleeping were gastric surgery and gastroenterology nurses, whereas urological nurses were the most passive ($p<0.001$) (**Table 4**). Nurses of gastric surgery patients were more active in opening a discussion on the patient's disease progression than nurses of oncological patients ($p=0.037$) (**Table 5**).

Relation between the patient's background information and the activeness of nurses in initiating discussion

Sex: Nurses opened a discussion on wound care ($p=0.037$) and nutrition ($p=0.014$) more actively with male patients than with female patients (**Table 3**).

Mode of arrival in the hospital: Nurses opened a discussion on pain ($p<0.001$), wound care ($p<0.001$) and medication ($p<0.001$) more actively with emergency duty patients than with elective patients ($p<0.001$). In addition, nurses opened a discussion more actively on mood ($p<0.001$), feelings caused by the situation ($p=0.006$), family and life situation ($p<0.001$) as well as substance use ($p=0.019$) with emergency patients. With emergency patients, nurses also opened a discussion more actively on blood pressure, pulse and temperature ($p<0.001$), urination and bowel function ($p=0.014$) as well as rest and sleeping ($p<0.001$) when compared to elective patients.

Patient's mode of treatment (surgical/conservative): Nurses opened a discussion on wound care ($p<0.001$), nutrition ($p<0.001$), follow-up treatment ($p=0.049$) as well as need for special workers ($p=0.004$) more actively with patients in conservative care than with surgical patients. With surgical patients, nurses opened a discussion more actively on medication ($p=0.037$), catheters and drains ($p<0.001$), urination and bowel function ($p<0.001$) as well as substance use ($p=0.007$) than with conservatively treated patients (**Tables 3-5**).

Duration of ward treatment: Nurses opened a discussion more actively on pain management ($p<0.001$), medication ($p<0.001$), substance use ($p<0.001$), urination and bowel function ($p=0.037$) as well as rest and sleeping ($p<0.001$) with patients who had been in ward treatment longer (≥ 4 days) than with patients who had been in the ward for a shorter time (1-3 days). However, regarding wound care ($p<0.001$), nutrition ($p=0.014$) and the need for special workers ($p<0.001$), nurses opened a discussion more actively with patients who had been in the hospital for a shorter time than with patients who had been there longer (1-3 days) (**Tables 3-5**).

Room type: Nurses opened a discussion on pain management ($p<0.001$), urination and bowel function ($p<0.001$) as well as substance use ($p<0.001$) more actively in rooms with several patients (≥ 3) than in rooms of 1-2 patients. On the other hand, regarding nutritional issues, nurses opened

a discussion more actively in rooms of 1-2 patients than in rooms of several patients (Tables 3-4).

Discussion

According to the results, nurses were passive as discussion openers during ward rounds. In earlier studies [7,10], it has also been shown that nurses do not actively participate in the discussion during ward rounds. This goes to show that ward rounds are physician-directed and the nurse's role on the round may be quite detached. This is a cause for concern as the nurse is well-aware of the patient's situation and should act as the patient's "voice" on the ward round. An interesting result was that nurses did not open discussions about the planning and evaluation of treatment, even though the treatment-related decision-making in nursing proceeds from determining the patient's needs to the planning, implementing and evaluating the treatment.

Nurses of gastroenterological patients were more active in opening discussions about physical health and psychological status than other nurses. However, in earlier studies [23,24], it has been noted that nurses of oncological and surgical patients also support the patient in a psychologically difficult life situation. The presence of other patients in the patient room may also affect the fact that nurses do not open a discussion on feelings and mood. It is likely that the nurses discuss the patient's psychological situation at another time. Burns [9] has found that a lack of time prevents interaction between the participants of ward rounds. The personal qualities of nurses also have an effect on their activeness in opening discussions.

In this study, nurses of gastric surgery and gastroenterology patients were more active discussion openers in all topics than other nurses. One explanation can be the treatment of gastric surgery patients requires quick decision-making, because their situation can change very quickly. Nurses want to clarify the patient's care as early as possible. Nurses opened discussions more actively with emergency patients than with elective patients. It is likely that the nurse opens a discussion during emergency situations in order to gain a holistic picture of the patient's situation. Nurses' activity could be due to individual differences and some nurses' can be more active compared to others irrespective of their units. Furthermore, the culture can affect on nurses' activity. Traditional hierarchies dominated communication in ward rounds. The physicians can suppose that they are the leaders of the ward round and the nurses are in back. The physicians believe that only they are legitimated in accessing limited bedside space during ward rounds. Nurses' are called to the bedside when physicians want certain information that is not recorded in patients' documents. The nurses may be afraid to say their own opinions or perceive that their views are not being heard during the ward round. It is also important how the nurses prepare themselves before the ward round. The atmosphere must be open.

The ward rounds are often divided into two parts. On the corridor, the physician and the nurse have a discussion first about issues regarding the patient, after which they move on to the patient room. It is possible that the nurse conveys

information and participates actively in the corridor discussion but ceases to do so in the patient room. In this study, only discussions taking place by the patient's bedside were observed. Ward rounds should encourage a multiprofessional collaboration that builds a shared understanding of the patient's situation as well as the necessary procedures and solutions to problems [15,25]. On the other hand, Hugman [26] has noted that professionals may experience multiprofessionalism as a threat to their own professionalism. Therefore, collaboration should be based more on knowledge and competence than on titles [27]. Interaction is needed where it is possible to bring knowledge and different viewpoints together. It has been noted that patients also think that the collaboration between the nurse and the physician during the rounds should be better organized, standardized and holistic [1].

Nurses should use their professional skills and take a more active role during rounds. When developing ward rounds, we can also consider whether it would be possible to utilize nurse-driven rounds with long-term patients where the nurses would draw upon their expertise and only consult the physician when necessary. Nurse-driven rounds have been shown to increase patient safety because the patient's situation can be addressed at an earlier stage [28].

It would be desirable if the deeply rooted ward rounds culture changed slowly through training provided to care personnel. It would be important to organize shared courses for nurses and physicians already during their training so that they can learn about the content of the work of each profession. Shared training for physicians and nurses has been demonstrated to increase the understanding of professional roles and collaboration between these professional groups [29].

Limitations

There are limitations to the study. Firstly, we did not observe corridor discussions as part of the study, as the current study focused on ward rounds where the patient is present. Furthermore, the results of the observation form piloted in this study are preliminary, and the form needs to be tested further.

Conclusion

Nurses should use their expertise in opening discussions on the patient's physical and psychological state, as well as decision-making regarding the planning and evaluation of treatment. It is possible that the patient will not initiate a discussion about their psychological situation, so the nurse needs to bring it up. The ward round should be an equal forum of collaboration where both the physician and the nurse utilize and complement each other's expertise. Support from managers in different professional groups is important for increasing the participation of nurses during ward rounds. The research results also provide follow-up research challenges. By videotaping ward rounds, it would be possible to gain information on the interaction between the participants of the

ward rounds. It would also be interesting to study the shared experience of nurses, physicians and patients regarding the ward rounds, as well as the patients' own experiences. In the future, the patients' view of the nurse's involvement doing rounds should be examined.

References

- Swenne CL, Skytt B (2014) The ward round-patient experiences and barriers to participation. *Scand J Caring Sci* 28: 297-304.
- O'Hare J (2008) Anatomy of the ward round. *Eur J Intern Med* 19: 309-313.
- Willemann M, Svendsen MN, Ankjær-Jensen A, Petersen PG, Christensen M (2006) Stuegang: A medical technology assessment focusing on knowledge production. *Medical Technology Assessment* 6(1)/DSI Rapport 2006.
- Montague ML, Hussain SS (2006) Patient perceptions of the otolaryngology ward round in a teaching hospital. *J Laryngol Otol* 120: 314-318.
- Mattila E, Leino K, Collin P, Sand J (2013) Ward round in light of the research literature. *Duodecim* 129: 2605-2611.
- Walton JM, Steinert Y (2010) Patterns in interaction during rounds: Implications for work-based learning. *Med Educ* 44: 550-558.
- Liu W, Manias E, Gerdtz M (2012) Medication communication during ward rounds on medical wards: Power relations and spatial practices. *Health* 17: 113-134.
- Carroll K, Iedema R, Kerridge R (2008) Reshaping ICU ward round practices using video-reflexive ethnography. *Qual Health Res* 18: 380-390.
- Burns K (2011) Nurse-physician rounds: A collaborative approach to improving communication, efficiencies, and perception of care. *Medsurg Nurs* 20: 194-199.
- Desai T, Caldwell G, Herring R (2011) Initiative to change ward culture results in better patient care. *Nurs Manage* 18: 32-35.
- Herring R, Richardson T, Caldwell G (2013) Ward rounds: What goes around comes around. *Lancet* 2: 373-374.
- Parissopoulos S, Timmins F, Daly L (2013) Re-exploring the ritual of the ward round. *Nurs Crit Care* 18: 219-221.
- Larsson IE, Sahlsten MJ, Segesten K, Plos KA (2011) Patients' perceptions of nurses' behaviour that influence patient participation in nursing care: A critical incident study. *Nurs Res Pract*. 2011:534060.
- Weber H, Stöckli M, Nübling M, Langewitz WA (2007) Communication during wards rounds in Internal Medicine. An analysis of patient-nurse-physician interactions using RIAS. *Patient Educ Couns* 67: 343-348.
- Tang CJ, Chan SW, Zhou WT, Liaw SY (2013) Collaboration between hospital physicians and nurses: An integrated literature review. *Intern Nurs Rev* 60: 291-302.
- Bettany-Saltikov J, Whittaker VJ (2014) Selecting the most appropriate inferential statistical test for your quantitative research study. *J Clin Nurs* 23: 1520-31.
- Munro BH (2005) *Statistical methods for health care research*. Lippicott Williams & Wilkins Company, Philadelphia.
- Caldwell K, Atwall A (2005) Non-participant observation using video tapes to collect data in nursing research. *Nurse Res* 13: 42-54.
- Kemp E (2001) Observing practice as participant observation-linking theory to practice. *Soc Work* 20: 527-538.
- Shamoo AD, Resnik DB (2003) *Scientific research and ethics. Responsible conduct of Research 2003*, Oxford University Press, New York.
- Beauchamp TL, Childress JF (2009) *Principles of biomedical ethics 2009*, (6th edn). Oxford University Press, New York.
- TENK (2012) Finnish Advisory Board on Research Integrity 2012. [http://www.tenk.fi/sites/tenk.fi/files/HTK_ohje_2012.pdf/] Accessed on: September 06, 2016.
- Uitterhoeve R, Bensing J, Dilven E, Donders R, deMulder R, et al. (2009) Nurse-patient communication in cancer care: Does responding to patient's cues predict patient satisfaction with communication. *Psychooncology* 18: 1060-1068.
- Merckaert I, Libert Y, Messin S, Milani M, Slachmuylder JL, et al. (2010) Cancer patients' desire for psychological support: Prevalence and implications for screening patients' psychological needs. *Psychooncology* 19: 141-149.
- Walton V, Hogden A, Johnson J, Greenfield D (2016) Ward rounds, participants, roles and perceptions: Literature review. *Int J Health Care Qual Assur* 29: 364-379.
- Hugman R (2003) Going round in circles? Identifying interprofessional dynamics in Australian health and social welfare. In Leathard A (2003) *Interprofessional Collaboration. From policy to Practice in Health and Care*, Sussex, Brunner-Routledge, 56-57.
- Miller KL, Reeves S, Zwarenstein M, Beales JD, Kenaszchuk C, et al. (2008) Nursing emotion work and interprofessional collaboration in general internal medicine wards: A qualitative study. *J Adv Nurs* 64: 332-343.
- Catangui EJ, Slark J (2012) Nurse-led ward rounds: A valuable contribution to acute strike care. *Br J Nurs* 12-25: 801-805.
- Moret L, Rochedreux A, Chevalier S, Lombrail P, Gasquet I (2008) Medical information delivered to patients: Discrepancies concerning roles as perceived by physicians and nurses set against patient satisfactions. *Patient Educ Couns* 70: 94-101.