SPECIAL ISSUE ON BASIC NURSING CARE

Basic Nursing Care: Retrospective Evaluation of Communication and Psychosocial Interventions Documented by Nurses in the Acute Care Setting

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Abstract

Purpose: This study aimed to evaluate the frequency of psychosocial aspects of basic nursing care, as e-charted by nurses, when using an interface terminology.

Methods: An observational, multicentre study was conducted in acute wards. The main outcome measure was the frequency of use of the psychosocial interventions in the electronic nursing care plans, analysed over a 12 month retrospective review.

Findings: Overall, 150,494 electronic care plans were studied. Most of the intervention concepts from the interface terminology were used by registered nurses to illustrate the psychosocial aspects of fundamentals of care in the electronic care plans.

Conclusions and Implications: The results presented help to demonstrate that the interventions of this interface terminology may be useful to inform psychosocial aspects of basic and advanced nursing care.

Clinical relevance: The identification of psychosocial elements of basic nursing care in the nursing documentation may lead to obtain a deeper understanding of those caring interventions nurses consider essential to represent nurse-patient interactions. The frequency of psychosocial interventions may contribute to delineate basic and advanced nursing care.

Basic nursing care (BNC) has been defined as the essential "principles of nursing care concerning nursing problems shared by any kind of patient groups, regardless of specific diagnosis, symptoms or forms of treatment" (Adamsen, & Tewes, 2000, p. 120) and it has been a core area for the discipline since Nightingale's seminal works. Until the 1970s, BNC was the cornerstone of nursing practice, however for almost 4 decades it has

been deemphasized, devaluated, little acknowledged and under-researched (Pearson, 2010; Wollman, 2009). In the 1990s, some authors started raising concerns on the distance between the focus of nursing theories and the exercise of BNC (Davidsen, & Koch, 1995). Later, failure to deliver the fundamentals of care was identified in several studies, demonstrating that most of the care missed on a regular basis was related to BNC practices (Adamsen, & Tewes, 2000; Kalish, 2006).

Recently, a group of researchers refined the meaning of the concept Fundamentals of care addressing essential care elements into three dimensions: physiological, self-care, and environmental aspects of care (Kitson, Conroy, Wengstrom, Profetto-McGrath, & Robertson-Malt, 2010). According to these authors, the provision of care fundamentals include elements to assure: safe environment, life cycle, breathing, eating and drinking, elimination, personal cleansing and dressing, comfort, sleep and rest, temperature control, mobility, working and playing, expressing sexuality, and communication. Similarly, a myriad of initiatives have been launched to rescue the fundamental aspects of patient care; some as a response to growing awareness of inconsistencies in standards across facilities and extraordinary emphasis on service efficiency (Carlick, & Price, 2006), and others focused on the most common patient complains: lack of assistance with toileting, inadequate pain relief, not enough help with eating and drinking, and poor communication (Lomas, 2012).

Communication in the nurse-patient relationship is an integral part of daily nursing practice, the base to strengthen therapeutic bonds to achieve patient's outcomes. In this partnership, communication is a multi-dimensional interaction that involves a reciprocal process of sending, receiving and recognizing messages and feelings, to express concern and commitment, and foster trust and positive human connection (Charlton, Dearing, Berry, & Johnson, 2008; Kennedy Sheldon, Barrett, & Ellington, 2006; McCabe, 2004). Different patterns of nurse-patient communication have been identified: (a) chit-chating during the spare time, (b) informal communication needed to build relationship, (c) spontaneous patient-initiated communication, (d) task-oriented, nurse-initiated communication, and (e) therapeutic, purposefully, nurse-initiated communication to meet a patient' need (Charlton et al., 2008). These patterns include the use of a variety of communication strategies such as clarifying, moderating, explaining, listening, distracting, using humour, enhancing feedback, maintaining eye contact, or touch. Likewise, nurses' communicating behaviours include empathy, respect, proceed without hurry, assure privacy and confidentiality, and seek to understand and respond patients' needs and choices (Kim, Heerey, & Kols, 2008).

It is said that nurses are able to manage their workload while effectively communicating with patients in brief exchanges during the provision of daily tasks (Barrere, 2007), that time required for personal care provides ideal opportunities for nurses and patients to communicate. But Tejero (2010, p. 611) observed that "the interactions of longer duration resulted in significantly higher levels of bonding and allowed for more information interventions and interpersonal exchange to occur". Basic empathetic communication has been identified as a prerequisite to nursing care delivery, because it may contribute to creating the basis for therapeutic relationships and its absence prevents the provision of help for patients to cope effectively with their health problems (McCabe, 2004). However, when assessing for patients' perceptions, lack of communication is a concern referred by patients. Research studies showed that they are dissatisfied with the insufficient communication or the improper attention to their emotional needs (Shatell, 2004; Uitterhoeve et al., 2009). These may affect the patients' recovery, generate feelings of exclusion, frustration or loss of control, and negatively impact overall health outcomes (Finke, Light, & Kitko, 2008).

It is also acknowledged that the nurses' ability to report and document patients' status, progress, and nursing care plans is an important issue in patients' care (Saranto, & Kinnuen, 2009). However, nursing documentation has been reported to present shortcomings concerning psychosocial, educational, and spiritual aspects of care (Cheevakasemsook, Chapman, Francis, & Davies, 2006; Wang, Hailey, & Yu, 2011).

This article focuses on the identification of communication and psychological elements of fundamentals of care, as documented by nurses in their electronic health records (EHR), when using a nursing controlled vocabulary termed ATIC, so called after the Catalan initials for its six components: Architecture, Terminology, Interface, Information, Nursing (Infermeria), and Knowledge (Coneixement). The ATIC terminology is an interface vocabulary currently used to chart nursing care in the EHR in 13 facilities in Catalonia: 3 large metropolitan teaching centres, 3 urban university facilities, 4 community hospitals, 1 rural hospital, 1 in-patient adult cancer centre, and 1 long-term care facility. Registered nurses are educated in the use of this vocabulary in continuing vocational training, classroom based courses, and they also receive on-site methodological support in the hospitals as requested.

The ATIC Terminology is aimed at representing nursing knowledge and practice in the EHR. It is structured in three main axes: assessment, judgement and intervention. Each of these strands is further organized into a two-axes matrix (dimensions and components) embedding

the concepts. Figure 1 (available online) exemplifies part of the intervention axis.

The natural language that nurses use in their daily practice is the main source of terms (labels) and concepts (meanings) for this vocabulary although, subsequently, concepts are further revised for theoretical refinement and assertional knowledge incorporation (definition of specifications, attributes, or modifiers). Each concept also undergoes a verification process that includes concept decomposition according to international guidelines (International Organization for Standardization, 2003), concept mapping (defining equivalences to other vocabularies) and concept maturity analysis in terms of scientific production (Figure 2, available online). Appendix 1 (available online) includes a structured approach summarizing how ATIC was developed and tested and the main similarities and differences between ATIC and other nursing language systems (Juvé-Udina, 2012a; Juvé-Udina, 2012b; Juvé-Udina, 2013).

In the ATIC terminology, a nursing intervention is defined as "a prescription of nursing care that derives from the diagnosis of a patient's problem or response and reflects nursing management for its prevention, solving or palliation" (Juvé-Udina, 2012a, p. 66). Nursing interventions do not include the description of procedures rather they are care prescription statements that may be detailed adding activities. A nursing activity is a "specification of an essential element that characterizes a nursing intervention aiming to clarify it or to clearly inform remarkable aspects of an intervention that have to be detailed to assure patient' safety, quality or continuity of care, or to respond to regulations, legal, ethical or cost-efficiency requirements" (Juvé-Udina, 2012a, p. 66).

This inquiry is aimed at evaluating the frequency of use of psychosocial nursing interventions from the ATIC terminology, charted by nurses in the electronic care plans (ECP) of patients admitted to a hospital ward. The secondary goal is to identify the frequency of use of nursing activities linked to psychosocial nursing interventions.

Methods

In the study, we applied a descriptive design, based on a 12-month retrospective evaluation of data (January to December, 2012). Electronic records of all patients admitted to a ward or step-down unit were considered eligible for the study. Critical care episodes were excluded because the nursing documentation was not computer-based. The electronic charts from three large metropolitan tertiary centres (> 500 beds), three urban university facilities (200–500 beds) and two community hospitals (100–200 beds) were studied. In-patient units included

adult and paediatric medical wards, surgical units, combined medical-surgical floors, step-down units, mixed-acuity units, obstetrics wards, adult acute mental health floors, and in-patient home units.

Approval from the Bellvitge University Hospital Ethics Committee to conduct the research was obtained. A blinded data retrieval system to protect data confidentiality (TOAD for Oracle® v.10, Quest Software Inc., Aliso Viejo, California) was used for data collection. The researchers obtained data on communication and psychosocial interventions and activities documented by nurses in the nursing care planning section of the EHR by means of executing Standardised Query Language queries. Personal data were not accessed, except those needed to describe sample features.

The main outcome measure was the frequency of use of the documented interventions and activities analysed over a 1-year retrospective review. In line with previous studies (Juvé-Udina, 2013), the frequency of use of the interventions was categorized by frequency of use as *extremely high* (>50% of overall cases) *very high* (20%-50%), *high* (10%-20%), *moderate* (5%-10%), *low* (1%-5%), *very low* (.1% − .99%), *extremely low* (.01% − .09%), *exceptional cases* (<.01%), or *null* (.00%).

Gleaned data were processed onto an Excel spreadsheet (Microsoft Corp., Redmond, VA, 2007) and reviewed to uncover potential processing errors. The data analyses were performed using the statistical functions of SPSS v15 (Softonic International, Barcelona, Spain). Due to the properties of the data, frequencies in percentages and central tendency measures were calculated for description. To provide the accuracy of the estimation confidence intervals were calculated for a confidence level of 95%.

Findings

A total of 150,494 in-patient care episodes from eight hospitals accounting for 130 nursing wards (82.3% medical and surgical units, 13.7% paediatric and obstetrics wards, and 3.8% acute mental health wards), 23 step-down units (87% adult and 13% paediatrics intermediate care) and 9 home in-patient units (5.5%) were analyzed. Most patients were admitted due to cardiocirculatory, digestive, respiratory, musculoskeletal or infectious conditions (52.7%). Table 1 (available online) shows further information of the study group.

Sixty-four psychosocial nursing interventions from the ATIC Terminology (98.4%) were found to be used in the ECP, while one intervention (infant massage) was never employed during the period of the study. Admission care (98.8%; CI 95%: 98.89 − 98.89), Active listening (93.8%; CI 95%: 93.80 − 93.80) and Emotional debriefing (brief

intervention aimed to monitor the emotional status of the patient, promptly identify changes or cues to emotional deterioration, and redress emotions (82.8%; CI 95%: 82.84 – 82.84), were the most commonly used psychosocial nursing interventions employed by nurses to illustrate patients' care in the electronic charts of the inpatient population studied, whilst caregiver involvement (61.1%; CI 95%: 61.98 – 61.48) was the first intervention to other beneficiaries than the patient.

The frequency of documented psychosocial interventions distributed as herein detailed: six interventions fell into the *extremely high frequency* category (9%); eight interventions (14%) corresponded to the *very high* ($n = 4$) and *high frequency* of use ($n = 4$) respectively; five concepts (8%) were found to be used with a *moderate* frequency; 29 labels (45%) fell into the *low frequency* ($n = 13$) and *very low* frequency of use category ($n = 16$); 15 communication interventions (23%) were used with *extremely low* frequency and *exceptional cases* in the nurses e-charts (Table 2, available online).

Secondary outcome measure analysis resulted in 85 activities linked to psychosocial nursing interventions in the electronic nursing care planning. Eight activities that might be linked to any of the psychosocial interventions were never included in a patient's care plan during the period of the study (Sexuality concerns expression: address, Cultural factors: consider, Will and commitment: assess, Memories: recall, Limits: set, Courage search: assist, Resilience: assess and Resilience: reinforce). The frequency of use of most of activities fell into low frequencies categories. Only one activity was used with extremely high frequency (Ward dynamics: inform) and two fell into the very high category (Information understanding: assess and Emotional support: provide). Table 3 (available online) provides further information of these findings.

Discussion

In the current study, we report the results of the frequency of use of communication and psychosocial nursing interventions concepts to inform basic nursing care, as e-charted by nurses in the acute care setting. In the inquiry, sample data were consistent with data from previous nursing studies (Goossen, Epping, Feuth, van der Heuvel, Hasman, & Dassen, 2001; Sermeus, Delesie, Van den Heede, Diya, & Lesaffre, 2008). The findings show an extensive use of selected basic psychosocial intervention concepts, such as those to illustrate essential empathetic attitudes useful to establish a therapeutic nurse-patient relationship and manage patients' physiological anxiety, whilst most of the interventions have been identified with a variety of low-grade frequencies.

There is plenty of literature on nursing communication and psychosocial issues of care, but little is known on the frequency of communication and psychosocial nursing interventions documented in whole general inpatient populations because there is a paucity of published studies assessing the frequency of nursing interventions in large, acute care populations. Located studies describe sample frequencies of nursing interventions and a demonstration of nursing specialty knowledge in nursing records by use of standardised nursing languages, including the Nursing Intervention Classification (Goossen et al., 2001, Thoroddsen, Ehnfors, & Ehrenberg, 2010). Their results are quite consistent with the ones in this evaluation in terms of the frequency ranking of documented psychosocial interventions such as active listening, health education (termed teaching), admission care, emotional debriefing, reorientation (termed help with orientation), and counselling. These high and moderately high frequency nursing interventions are probably drawing fundamental psychosocial aspects of basic nursing care, since they are commonly used to represent these issues in the nursing documentation across specialties and groups of patients.

None of these two cited studies included nursing activities as defined in our inquiry however, this fact might be due to comparison among different types of language systems, because conceptually, nursing minimum data sets, classifications (like NIC), and interface terminologies (like ATIC) serve different purposes. The formers are expected to present aggregated data, whereas the latter may include concepts detailed to different levels of specificity or granularity necessary for bedside documentation, form general concepts to very concrete ones, because "the need for granularity varies depending on the needs of the users; at the point of care, specific concepts may be needed, for research or management purposes less granularity will suffice" (Bakken, Cashen, Mendoca, O'Brien, Zieniewicz, 2000, p. 82). It should also be considered that the context of practice, cultural and educational background of nurses who documented the interventions included in each study, might be shaped by differences.

A number of reports on documented nursing interventions in selected acute populations have been recently published. Lucena, Rivero de Gutiérrez, Echer, & Bottura Leite de Barros (2010) reported cross-sectional data on the most frequent NIC interventions in the adult critical care charts, including psychosocial care, but their findings do not report detailed frequency per intervention. Similarly, other authors explored the use of NIC interventions in a neonatal intensive care unit, identifying that teaching, family implication, and family support were the most frequently documented (Fernández, Rodríguez, Rodríguez, Gómez, Estrella, & Lizb, 2013). Surprisingly,

they did not mention Kangoroo care, which is one of the most frequently reported intervention for neonates admitted to intermediate care in our study. Moderate co-incidence exist when observing the findings of a study that described the most frequent interventions charted for hospitalised older adults with heart failure, considering that these authors found significant variation in the most frequent nursing interventions identified across the hospitals studied (Scherb et al. 2011). Finally, in an inquiry on cancer patients, the authors report the use of the OMAHA classification system to identify nursing interventions, demonstrating that teaching, counseling, and guidance were the most frequently documented psychosocial interventions for this vulnerable population (Kline O'Sullivan, Bowles, Jeon, Ercolano, & McCorkle, 2011). These considerations about the similarities and differences among studies should be interpreted with caution, since the reports refer to different populations.

Research reviews approaching diverse groups of patients identify psychosocial interventions as described in the nursing literature (Ennis & Wallace Kacer, 2013; Frauenfelder, Müller-Staub, Needham, & van Achterberg, 2013; Wagley, & Newton, 2010). Most of the interventions referred by these researchers have been identified in our study, either as interventions or as activities. Other interventions cited in these studies should be compared in-depth using mapping techniques to assure meaning consistency. In one of these inquiries, the authors also identify non-mapped statements to NIC statements and suggest the need for creating additional interventions in this classification system, like de-escalation or risk identification: aggression (Frauenfelder et al., 2013). Both have been identified with a low pattern frequency of use in our study, the first as an intervention (de-escalation technique), the second as an activity (aggressiveness: assess).

Implications for Practice and Research

The high frequency e-charted interventions identified in our findings are probably a representation of the first "superficial level" of nurse-patient communication, typed task-oriented, nurse purposefully-initiated to meet a patient's basic need and to create the basis for a therapeutic relationship but probably, as stated by McCabe (2004, p. 47) "insufficient for dealing with emotional difficulties".

Lower frequency psychosocial interventions reported in our results might be indicators of non-basic nursing care. Communication and psychosocial complex care needs of patients have been related to severe communication impairments, inherited or acquired disabilities, adaption challenges, insufficient emotional resources, developmental issues, critical, neurological or mental health conditions and advanced chronic diseases (Finke, Light, & Kitko, 2008; Hemsley, Balandin, & Worrall, 2012). Caring for and communicating with a patient with complex communication needs has been identified as extremely challenging for nurses who have not received education and training on psychosocial and alternative communication strategies (Finke, Light, & Kitko, 2008).

Promotion and use of nonverbal communication is the first low-frequency nursing intervention identified in the ranking of our results. Cognitive restructuring, strengthening parental-child bonds, support coping when disease is progressing or the patient suffers a relapse, support grieving, prevent suicide or de-escalate a potentially violent interaction, exemplify interventions that probably require advanced nursing skills, specialized education, and a high level of clinical expertise.

The design of this study does not allow setting definite boundaries between interventions representing basic and advanced or specialized nursing care. However, it might be hypothesized that nurses' competence plays a role, since the content of nursing documentation has been closely associated to nurses' professional expertise (Wang, Hailey, & Yu, 2011). The findings from a previous report on expertise threshold, in a sample of acute care nurses, indicated that patient's and family adaption and coping issues require proficient levels of clinical expertise (Juvé-Udina, Farrero-Muñoz, et al., 2008). Furthermore, it should be noted that barriers for effective nurse-patient communication exist not only related to knowledge and training or experience but to organizational context issues, such as time constraints and staffing shortages (Chan, Jones, Fung, & Wu, 2011) and to individual nurses own emotional handling abilities (Kennedy Sheldon, Barrett, & Ellington, 2006). Likewise, patient and family's emotions, nurse emotions, nurse coping behaviours and nurse-physician-patient communication may lead to difficult nurse-patient communication, requiring advanced skills, learned during the clinical pactice to facilitate emotional disclosure, enhance effective coping mechanisms for patients and families and to avoid the sense of exclusion (Kennedy Sheldon, Barrett, Ellington, 2006; Shattell, 2004).

Findings in our inquiry provide frequency data on nursing psychosocial interventions and activities in the in-patient population. Activities represent specifications to psychosocial nursing interventions, prescribed in the patients' care plans, and may offer valuable detailed information on what nurses consider necessary for a better representation of nurse-patient interactions and psychosocial care provided. Usually, activities are not informed in research studies reporting findings on documented nursing interventions. This may be because standardized nursing languages, such as NIC, tend to

aggregate and synthesize data, and they have been reported to lack alignment of terms being used by nurses in the clinical setting (Carrington, 2012). Nevertheless, the usefulness of activities to inform detailed basic and advanced nursing care should not be underestimated because this level of specificity and point may expand our understanding about how do nurses approach psychosocial issues. Further research should be conducted on this topic.

Limitations

The most significant limitation of this study is that it only addresses the nurses' point of view, as reflected in the ECP. Patients' perception, satisfaction or other qualitative indicators that surround communication and psychosocial needs cannot be represented with this design and the kind of data gathered. In addition, this study neither can assure that the interventions and activities with lower frequencies are not really done. At observing results for these interventions, it might be inferred that most of them are probably indicated only for selected patients' profiles, whereas this is not the case for activities in the lower frequencies, since a priori, they could be useful in multiple cases. This might indicate the need for conducting studies on what nursing interventions and activities are considered by nurses not relevant to chart them on the documentation, and what psychosocial and communication interventions are patients willing to accept.

Our inquiry only focused on nursing interventions and activities prescribed by nurses in the patients' care plans, omitting nursing judgments stated as diagnoses and outcomes, and this should also be considered a limitation. Either way, the study of patients and caregivers' experience should not be based only on the nursing documentation content, since the literature informs of inconsistencies among patients and nurses' views regardless the practice settings (Kennedy et al., 2006; Shatell, 2004; Thompson, & McKeever, 2012). Nurses' behaviours and attitudes towards patient-centred care and proficiency on basic and advanced psychosocial care entail their willingness to overcome barriers to effective communication, their humility and fortitude in persisting until feedback and therapeutic bonds are achieved (Finke et al., 2008; Kim et al., 2008). Nevertheless, to date, these attending behaviours are hardly reflected in the nursing documentation irrespective of the nursing vocabulary used; the nursing documentation may serve multiple purposes but it is only an abstract representation of the real experiences of patient' care. The nursing documentation may summarize a reality, but it is not the reality itself.

This study also presents the inherent limitations to descriptive, retrospective, designs and it also has to be mentioned that, the ATIC terminology has not yet been submitted to a formal transcultural validation process. This limitation has to be considered because the literature describes several culturally relevant issues on the use of nursing controlled vocabularies across countries (Lai, Chao, Yang, Liu, & Chen, 2013; Thoroddsen, & Thorsteinsson, 2002).

Conclusions

In conclusion, this study aims at contributing to support the efforts of those scholars and researchers claiming for recovering the essentials of nursing care, by using data from the practice settings to expand our understanding of the significance and complexity of nurse-patient interactions. The results presented may help to prove the ATIC Terminology is useful to inform communication and psychosocial aspects of basic and advanced nursing care to represent, in the electronic documentation, nurses' interventions and activities provided to meet patient and family's psychosocial needs.

Clinical Resources

- University of Adelaide working group on Redefining the fundamentals of care: http://ebooks.adelaide.edu.au/dspace/bitstream/2440/75843/1/hdl_75843.pdf
- Improving the quality of basic nursing care: http://www.wales.nhs.uk/documents/booklet-e.pdf
- Glossary of terms on controlled vocabularies and nursing informatics: http://dlthede.net/Informatics/glossary2.html
- Experiences of the ATIC terminology implementation in practice settings (only available in Catalan): http://www.gencat.cat/ics/professionals/pdf/Planscures.pdf

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Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web site:

Appendix 1. The ATIC Terminology in brief

Table 1. Sample features

Table 2. Frequency of nursing interventions

Table 3. Frequency of psychosocial nursing activities

Figure 1. Sampling the Intervention axis of the ATIC Terminology (Presented herein focusing on communication and psychological interventions. All dimensions are represented however, only sample components and interventions are shown. Currently, the whole Intervention axis of the ATIC terminology contains these four dimensions, 15 components and 708 concepts).

Figure 2. Sample concept from the Intervention axis of the ATIC Terminology.