Factors involved in the delivery of nursing care
Fatores intervenientes na produção do cuidado em enfermagem
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Abstract
Objective: To identify the main factors involved in the delivery of nursing care, aiming at the development of items for an instrument.
Methods: This was a qualitative study conducted with four sessions of focus groups involving 20 clinical nurses. The guiding questions included perceptions and experiences of nurses on the quality (high or poor) of care delivered during their work shift. The statements were studied using thematic content analysis, based on the reference of the complex adaptive system.
Results: Four thematic categories emerged: (1) planning, intervention and evaluation of care; (2) design and qualification of the nursing staff; (3) resources to perform health care; and (4) multi-professional interaction. Those aspects involved in the production of care were characterized as systemic, multifactorial and related primarily to inadequate human resources, work conditions and organization.
Conclusions: The factors involved in the delivery of nursing care were identified for the development of items for an instrument, and show the potential to guide nurses and assist management decisions.

Keywords
Data collection/instrumentation; Focus groups; Nursing assessment; Nursing service, hospital; Nursing care

Resumo
Objetivo: Identificar os principais fatores intervenientes na produção do cuidado em Enfermagem para geração de itens de instrumento.
Métodos: Estudo qualitativo totalizando quatro sessões de grupos focais com a participação de 20 enfermeiros clínicos. As questões norteadoras incluíam percepções e experiências dos enfermeiros sobre a qualidade (ótimo ou ruim) de seu turno de trabalho. Os discursos foram examinados por meio da análise de conteúdo na modalidade temática, apoiando-se no referencial sobre sistema adaptativo complexo.
Resultados: Emergiram quatro categorias temáticas: (1) planejamento, intervenção e avaliação do cuidado; (2) dimensionamento e qualificação da equipe de enfermagem; (3) recursos necessários para prestar assistência; e (4) interação multiprofissional. Os aspectos intervenientes na produção do cuidado revelaram-se multifatoriais e sistêmicos e relacionados, principalmente, à insuficiência de pessoal e às inadequadas condição e organização do trabalho.
Conclusão: Os fatores intervenientes na produção do cuidado de Enfermagem para geração de itens de instrumento foram identificados e poderão nortear os enfermeiros em decisões assistenciais e gerenciais.
Introduction

Nursing manages its practice in subsystems of production that interact interdependently as part of a complex whole. Variations in inputs, processes and organizational characteristics influence the generated product, namely, the delivery of care.\(^{(1)}\)

In the systemic perspective, and according to complex thinking, care may be characterized as a dynamic, self-organized and nonlinear process. Such processes are also associated with the interaction between the knowledge and the participative/creative people behavior, in addition to unexpected demands and consequently constant adaptations.\(^{(2,3)}\)

The delivery process is related to the efficiency of the healthcare organizations. Nursing workflow reflects the dimensions of a complex adaptive system displayed by frequent relocations, which hinders patient-focused interventions and leads to unexpected occurrences, interruption and (re)prioritization, in addition to the influence of the environment and needed resources.\(^{(4,5)}\)

Policy and financial constraints of the health system and restrictions on the scope of practice, in addition to fragmentation and professional tensions, have undermined nurses’ ability to deliver and improve the care required. The provision of the right care at the right time, focused on the needs of the patients, requires a transformation of the work environment, as well as changes in the scope of nursing practice and education, and in the amount of nursing staff.\(^{(6,7)}\)

In this context, it is necessary to conceive of tools for the management of delivery processes that can measure and lead this transformation in professional nursing organizations. Its application enables researchers to assess the efficiency and effectiveness of the performed activities in a systematic way, contributing to decision making and negotiations aimed at process improvements.

This study aimed to identify the main factors involved in the delivery of nursing care in order to develop instrument items.

Methods

We opted for a qualitative approach, utilizing focus groups, in order to reach the proposed goal. This method is a valuable tool to produce new content, and thus guide the generation of items, the initial step in the development of measurement scales.\(^{(8)}\)

Three large hospitals in the state of São Paulo, Brazil, were included in the study, in order to add participants from different scenarios regarding professional healthcare practice and fields of study. Data were collected between the months of October and July of 2012.

Initially, contact was made in person and/or via electronic media with nurse managers, leaders of nursing continuing education departments, and human resources department leaders, depending on each service for the research project presentation and attainment of permission to conduct the study.

After being contacted, nursing managers and continuing education leaders of the institutions indicated 39 clinical nurses from different units (criterion for inclusion). The nurses were approached personally by one of the researchers for clarification regarding the study’s purpose, time, and place of the meetings; finally an invitation letter was provided. Among these, 20 agreed to participate in the study. It was not possible to establish contact with a total of four nurses; due to lack of time, another 15 nurses declined. Telephone contacts and emails were used to remind participants of the previously scheduled meetings, and to encourage participation.

Four focus groups were conducted with three to seven nurses, following recommendations in the literature.\(^{(8,9)}\) In one hospital, two focus groups were performed. In this study, the deepening of the theme during the discussion was favored by smaller groups. The meetings took place in the institutions, in rooms of easy access without outside interference. They covered afternoon shifts \(n = 16\) and night shifts \(n = 4\), according to participants’ availability, with a duration ranging from 90 minutes to two hours.
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The discussions were led by one of the researchers (PhD in Nursing) with over ten years of professional experience in patient care and management of educational activities in nursing programs. The guiding questions, previously tested, were: “Which aspects do you evaluate at the end of the work shift to determine that your work performance was of high quality?” and “When you consider your work performance to be poor?” For personal and professional characteristics of the participating nurses, a questionnaire was administered preceding discussions.

As a first step, nurses were encouraged to write about the proposed issue, getting closer to the focus of study. Then a round of discussion began, with free expression, allowing interaction with other group members and encouraging their perceptions about the subject.

The discussions were recorded and filmed, with prior consent of the participants, and notes were recorded. A feedback session was held for the participants at the end of each focus group. Subsequently, the transcripts were reviewed by two researchers and compared with the audiovisual material obtained to verify its accuracy. The same researchers performed the coding of data, independently, which was continuously refined as the analysis provided new insights and consensus was reached. For this, thematic content analysis was used.

This technique was a systematic and objective procedure for description of record units with subsequent categorization, based on the following steps: (1) pre-analysis; (2) exploration of the material; and (3) treatment of the results, inference and interpretation. The systemic perspective and complex thinking were used as theoretical frameworks for the analysis of the nursing care delivery process and its management.

To ensure anonymity, participants were cited in the statements and discussions by the acronym S (subject) and listed chronologically, S1, S2, S3, S4, S5; focus groups were listed as M1, M2, M3 and M4, representing the meetings held in different health institutions.

The development of the study met national and international standards of ethics in research involving human beings.

Results

The 20 participating nurses were predominantly female (n = 15), with a mean age of 31 years (SD = 6.6, range 26-50 years) and a mean professional experience of 4.2 years (SD = 3.8, range 1-15 years). They worked in adult and pediatric inpatient units (n = 17), and adult and pediatric intensive care (n = 3). Regarding training, 14 were enrolled or had completed specialization courses in the work field related to the work area. In the content analysis of the statements, four thematic categories emerged and represented the main factors involved in the delivery of nursing care: (1) planning, intervention and evaluation of care; (2) design and qualification of the nursing staff; (3) resources to perform health care; and (4) multi-professional interaction.

Discussion

Despite the concern of the participation of nurses working in different care settings and with different work processes, our findings are restricted to the context of the three hospitals investigated, and may differ from other realities. The factors involved in the delivery of nursing care proved to be multiple and systemic, and reflect the need of redesign in the organizations. The impact of these factors on the labor process also became clear, in regard of the urgency for equipping nurses for management and policy decisions, as well as in negotiations for care excellence.

Time management is a key factor in how nursing work is organized and understood, influencing the planning, communication and decision making of nurses, consequently causing an impact on the delivery of patient care. An effort of cooperation and coordination between teams is required to ensure that work will be completed in a timely manner.
Given the various activities performed due to the demand for health care, time constraints and limited resources, the nurse is often distant from direct assistance and may omit important aspects of care.\(^{1(2)}\)

The amount of missed care is related to the increased workload, and those activities are generally considered as being exclusively within the competence of nurses. This omission indicates a deficiency in the quality of care and represents a potential risk for adverse patient events.\(^{13}\)

The study emphasizes the importance of equalizing the workload among available professional staff, and the establishment of systems to detect care needs, to guide the health team regarding the care to be provided, and also about the allocation of patients in the units.\(^{14}\) The high turnover of patients (admissions, discharges and transfers) increases the risk of death, and therefore should be considered in the staffing of nursing personnel.\(^{15}\)

The educational process is another essential service for the qualification of nursing staff, in the sense that this adds knowledge and increases the feeling of emotional security of the professional, enabling him/her to perform his/her practice in a competent, independent and collaborative way, which consequently impacts the quality of care.\(^{16}\)

The organizational environment can strongly influence the ability of nurses to build and maintain a therapeutic relationship with patients. This contact provides clinical supervision and follow-up of the interventions made by the technical team and establishes a more direct relational care with patients.\(^{17}\)

Certain aspects of the nursing work environment affect how nurses assess the care provided in their unit. When closer involvement with direct patient care occurs, assessment becomes more assertive; and, when human capital and resources are adequate, there is a better perception about patient safety.\(^{18}\)

The complexity of interventions associated with intense specialization and the transformations that occur in healthcare work imposes a coordinated and integrated approach among various professionals to meet the dimensions of human care. The multidisciplinary team meetings stand out as a practice that improve collaboration in the therapeutic plan, from the perspective of comprehensiveness and interdisciplinary attitude.\(^{19}\)

Multidisciplinary discussions enable the exchange of information in an environment of support and encouragement of communication to promote the development of relational coordination, which improves the performance of interdependent work processes.\(^{20}\) Many interactions among different professionals are undocumented and end up either lost or misunderstood, increasing the vulnerability to errors. The nursing coordination and patient care follow-up are therefore essential to ensure adequate management and efficient flow of information.\(^{21}\)

This action requires new forms of relationships, both in the institutional hierarchy and work organization, and also changes in the patient-provider relationship in order to provide a stronger bond, acceptance, and improved access. Furthermore, it contributes to more cooperative work, minimizing conflicts and improving worker satisfaction as well as the care provided.\(^{22}\)

Several aspects appear to restrict major advances in care management. One of the most significant factors constitutes the limitations of a structured delivery system that is strictly focused on patient centered care. This behavior implies the involvement of the patient in the establishment of his/her own needs and plans of care, the engagement of the team, and the structuring of services that promotes a favorable climate for this practice.\(^{23}\)

**Conclusion**

Those factors involved in the delivery of nursing care that can be used in the development of instrument items have been identified, and can guide nurses in clinical and managerial decisions.

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Collaborations
Cucolo DF and Perroca MG declare that they both contributed to the conception and design of the study, analysis and interpretation of data, in drafting the article, in critical revision of the important intellectual content, and that they gave the final approval of the version to be published.

References