

## HOSPITAL LINEN AND HEALTH CARE: PERSPECTIVE OF PROFESSIONALS AND STUDENTS\*

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**ABSTRACT : Objective:** analyze the understanding of the use of hospital linen and its importance in health care. **Method:** case study with 19 university level professionals (physicians and nurses), 23 secondary level professionals (nursing technicians and aides) and 11 undergraduate students (nursing and medicine) from a teaching hospital in the state of São Paulo, from February to June 2016. Thematic content analysis was used for data analysis. **Results:** two categories emerged from data analysis: "Hospital linen as a care item" and "Provision of linen for care". **Final considerations:** the participants were unaware of the meaning and importance of linen within the care context. Educational activities are needed to understand its importance. **DESCRIPTORS:** Comprehensive health care; Health education; Qualitative research; Hospital laundry service; Health service.

### ROUPA HOSPITALAR E O CUIDADO EM SAÚDE: VISÃO DOS PROFISSIONAIS E ESTUDANTES

**RESUMO: Objetivo:** analisar o entendimento sobre o uso da roupa hospitalar e sua importância no cuidado. **Método:** estudo de caso com 19 profissionais de nível superior (médicos e enfermeiros), 23 profissionais de nível médio (técnicos e auxiliares de Enfermagem) e 11 estudantes de graduação (Enfermagem e Medicina) de um hospital de ensino do interior do Estado de São Paulo, de fevereiro a junho de 2016. Para a análise dos dados, foi utilizada a Análise de Conteúdo Temática. **Resultados:** da análise dos dados, emergiram duas categorias: "Roupa hospitalar como um item do cuidado" e "Oferta da roupa para o cuidado". **Considerações finais:** os participantes do estudo desconhecem o significado e a importância da roupa para o cuidado. São necessárias ações educativas para a compreensão de sua finalidade. **DESCRIPTORES:** Assistência Integral à Saúde; Educação em Saúde; Pesquisa Qualitativa; Serviço Hospitalar de Lavanderia; Serviços de Saúde.

### ROPA HOSPITALARIA Y EL CUIDADO EN SALUD: VISIÓN DE LOS PROFESIONALES Y ESTUDIANTES

**RESUMEN: Objetivo:** Analizar la comprensión sobre el uso de la ropa hospitalaria y su importancia en el cuidado. **Método:** Estudio de caso, con 19 profesionales de nivel superior (médicos y enfermeros), 23 profesionales de nivel intermedio (técnicos y auxiliares de Enfermería) y 11 estudiantes de curso de grado (Enfermería y Medicina) en hospital de enseñanza del interior del Estado de São Paulo, de febrero a junio de 2016. Datos analizados por Análisis de Contenido Temático. **Resultados:** Del análisis surgieron dos categorías: "Ropa hospitalaria como ítem del cuidado" y "Oferta de la ropa para el cuidado". **Consideraciones finales:** Los participantes del estudio desconocen el significado y la importancia de la ropa para el cuidado. Serán necesarias acciones educativas para la comprensión de su finalidad. **DESCRIPTORES:** Atención Integral de Salud; Educación en Salud; Investigación Cualitativa; Servicio de Lavandería en Hospital; Servicios de Salud.

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## ● INTRODUCTION

The object of this study is the hospital laundry and its interface with care. It is assumed that health professionals and undergraduate students in medicine and nursing courses do not recognize the importance of the use of hospital linen in health care; that academic training does not work with support services as partners in the production of comprehensive care; and that health education could raise awareness among professionals for improving the use of linen in their care practices.

Assumptions such as these hinder care comprehensiveness which, among other aspects, should be humanized and focus on actions aimed at patient safety and comfort<sup>(1-2)</sup>, by promoting a therapeutic and embracing environment according to patients' needs. This is achieved when responsibility is shared among various professionals and services<sup>(3)</sup>, coordinating the practices of the professionals involved in the care.

The services within a hospital must interact to provide good care, including the laundry service<sup>(4)</sup>. Multiprofessional teams should strive to satisfy the needs of patients<sup>(5)</sup>, and any discontinuity in the work process, of any of these teams, will directly affect the quality of care provided.

The hospital laundry represents an important service and contributes indirectly to health care. It is responsible for the processing and distribution of linen in perfect hygiene and conservation conditions and amounts<sup>(6)</sup>, based on the understanding that clean linen is indispensable for the efficient operation of an institution<sup>(7)</sup>. All hospital sectors are dependent on the proper functioning of the laundry, since it assists in hospital infection control and patient safety and comfort.

Its responsibilities include processing linen with quality and safety; promoting a safe work environment for professionals; using adequate processing techniques; meeting the needs of patients; and humanizing care through the provision of hygienic linen in sufficient amounts for the type of procedure. The purpose of the service is infection control and patient recovery, comfort and safety<sup>(7)</sup>.

It is an unhealthy place where employees are exposed to physical, chemical, biological, ergonomic and accident risks that affect occupational safety and the quality of life of workers. Therefore, there is a need for infection control and occupational health risk prevention, since dirty linen, when handled by workers or used by patients, can serve as a vehicle for the dissemination of microorganisms<sup>(8)</sup>.

Linen management is a critical factor in hospital organization<sup>(9)</sup> and requires continuous learning on the part of employees to improve work performance<sup>(5)</sup>. Hospital linen is considered to be any cloth material, used exclusively in the hospital, which must be sanitized in the laundry before reuse. These include sheets, pillow cases, blankets, towels, curtains, patient garments, uniforms, diapers, compresses, surgical drapes, masks, shoe covers, aprons, caps and cleaning cloths<sup>(10)</sup>.

Proper use of linen helps conserve the fabric and enhances user comfort. Each item has a purpose and professionals do not realize that lack of linen during care procedures is the result of incorrect use of the items. If improper use or loss occurs, the amount of linen in circulation diminishes and supply will fail to meet demand, resulting in the need to continuously replenish linen<sup>(4)</sup>.

The quality of accommodation services is a factor that has a bearing on the choice of the hospital by elective patients<sup>(11)</sup>, and seeks to increase their and their family members' comfort<sup>(1)</sup>. Quality represents part of the recovery process and its objective is to make the environment pleasant, safe and humanized<sup>(11)</sup>. It is based on the continuous pursuit of excellence, combining comfort and safety with the objectives of the hospital<sup>(10)</sup>.

This premise, present in private health facilities, should also be found in public health care which recommends comprehensive and humanized care.

The training of health professionals should be oriented in this direction, seeking comprehensiveness of care that unites theory and practice<sup>(12-14)</sup>. This perspective involves care management and

continuing education, considering institutional reorganization<sup>(15)</sup>, with the integration of various specialties that support this process<sup>(16)</sup>.

This leads to the question: what understanding do health professionals and undergraduate students have of the importance of the use of hospital linen in care practices? Therefore, the objective of this study was to analyze the understanding of the use of hospital linen and its importance in health care.

## ● METHOD

This was a study case, with a qualitative approach, conducted in a public teaching hospital in the state of São Paulo.

The study participants were health professionals from university and secondary levels and undergraduate students from medicine and nursing courses in the hospital that was studied. The inclusion criteria were professionals and students who, at the time of the study, directly cared for patients, on the day shift, in inpatient units, the supplementary test center, operating theater, intensive care unit, emergency department and sterilization center. The exclusion criteria were professionals or students who worked or were interns in other care units of the hospital or outpatient clinics, those who at the time of the data collection were on vacation or medical leave and those who did not use linen in caring for patients.

The sample included 19 professionals from the university level (nurses and physicians), 23 professionals from the secondary level (nursing technicians and aides) and 11 undergraduate students (nursing and medicine), for a total of 53 participants. The sample, in short, was defined by data saturation, in which at least one essential homogeneity criterion in each participating category was maintained<sup>(17)</sup>.

The data was collected from February to June 2016 through semi-structured interviews comprised of the identification data of the participants and guiding questions on the understanding of hospital linen and its importance in care, the reasons for its shortage and how it is processed. The interviews were coded by the letter E, followed by successive sequential numbers: E01, E02, E03 and so on, up to a total of 53.

The data was interpreted using thematic content analysis, composed of the following stages: pre-analysis, exploration of the material, treatment of the results, inference and interpretation<sup>(18)</sup>.

The study was approved by an ethics committee under Protocol No. 1.351.215 and the participants signed a free and informed consent form before the data collection<sup>(19)</sup>.

## ● RESULTS

Of the participants, 19 (35.85%) were university level professionals; 23 (43.4%) were secondary level, and 11 (20.75%) were undergraduate students; 41 (77.36%) were women. In reference to their place of work at the time of the study, 17 (32.08%) participants worked in inpatient units; 10 (18.87%), in the supplementary tests center; 9 (16.98%), in the emergency department; 5 (9.43%), in the operating theater; 4 (7.55%), in the intensive care unit (ICU) and 2 (3.77%), in the sterilization center. The "other" category, with 6 (11.32%) participants, included undergraduate students that were interns in the general surgery, internal medicine, and orthopedic specialties.

Two analytical categories emerged from the data analysis: 1 - linen as a care item, based on the understanding, purpose, and types of items that made up the linen and 2 - provision of hospital linen for care, illustrated by the processing and reason for its absence.

In the first category, when the participants addressed the issue of understanding the use of hospital linen, they expressed themselves as follows:

*Linen that should only be used within the hospital [...], apparel for procedures and for use by employees, sterilized linen used in sterile procedures and isolation gowns [...]. (E23)*

*[...] everything the person uses while hospitalized and also for performing procedures in the operating theater [...], it's all the linen that is processed for use in the hospital [...] anything that is cloth. (E36)*

Some interviewees had a mistaken understanding regarding hospital linen, as shown by the following:

*[...] I imagine very clean, sterilized linen. When I think about linen, I already think of it as sterilized. (E30)*

*Nothing, I know that professionals, as well as patients, use it. (E43)*

As for the purpose of hospital linen, the interviewees described situations in which the linen was being used correctly:

*In all direct care with patients for their physical hygiene and surgical procedures. Good use according to its need and using it properly. Each piece of linen has its specific purpose [...]. (E12)*

Some interviewees reported situations where hospital linen was used incorrectly.

*Ripping linen, throwing linen on the floor to clean something, departure of discharged patients with hospital linen. (E02)*

*Eating in the cafeteria and going out on the street with the apparel, taking it home to wash. (E41)*

Regarding the types of hospital linen, the interviewees described:

*Sheet kits, pillow cases, covers, uniforms, towels [...], pads, floor rags [...]. (E16)*

*Sheets, pillow cases, bed covers, shirts, shorts, nightgowns, linen for newborns, linen used in the operating theater and for procedures such as intracath, surgical drapes, aprons, pads, restraint straps, blankets [...]. (E35)*

However, some referred to items not characterized as hospital linen:

*Jeans, long-sleeved blouses, white coats, and boots (E41)*

*[...] white coats, jeans, waterproof shoes [...]. (E49)*

In the second category, related to the processing of hospital linen, most of the participants said they did not have any knowledge on this topic.

*I am familiar with two stages: when the linen arrives in the dirty area, is separated and then goes to the clean area. (E03)*

*I don't know, but I imagine there is a washing and sterilization process. (E48)*

In the narratives of the interviewees, the reasons for lack of linen for care purposes were related to the work of the professional directly linked to the care, the dynamics of the laundry operation, lack of finances for replacing linen, loss of linen and increased care demand.

*[...] I imagine it's because it's not being used properly [...] using an apron when you're cold [...], changing sheets unnecessarily [...]. (E36)*

*[...] if the laundry operated 24 hours a day, I think there would be enough linen. (E01)*

*[...] lack of funds for sufficient linen. (E56)*

*[...] people take linen home, especially uniforms [...]. (E16)*

[...] because there are many wards and hospitals are expanding, but linen purchases have not increased [...]. (E13)

## ● DISCUSSION

The laundry service plays an important role in the hospital environment and care processes, but it is a service not seen by managers, professionals, and patients. It is non-care work, without a direct relationship with patients and, for this reason, is not recognized or valued<sup>(20)</sup>.

In the first analytical category, it was identified that, despite the importance of clean linen for providing care to patients, it is not noticed by the people who use it. It is an item that is found daily in most procedures carried out by professionals, but they are unaware of the meaning of the linen for care purposes.

The interviewees understood that the linen is intended for inpatients and professionals and that its use is restricted to the hospital environment. However, they did not mention that the linen must be processed to be reused; i.e., to have clean linen available for use, it is necessary that the linen be used and properly forwarded to the laundry.

The effective operation of hospital laundries depends on good planning and, for this, qualified teams are needed. In this context, nurses are important professionals in the management of this service, since they have skills such as organizational ability, communication, and leadership<sup>(21)</sup>.

When the interviewees defined the purpose of the linen, they correlated it to the procedures they perform from the time of admission of patients until their discharge. Care, such as baths, was cited by various interviewees, mainly by nursing staff. Baths provide patient hygiene and comfort, encourage circulation, promote muscle relaxation and improve self-image. Given in bed entails providing comprehensive care that recognizes the person in his or her entirety<sup>(22)</sup>.

Various situations involving improper use, not characteristic of the purpose of the linen, were also reported, such as ripping pieces of linen, scribbling on them or removing them from the hospital environment<sup>(4)</sup>. These narratives indicated that people understand that these attitudes harm the hospital and care, but it is difficult to identify who misuses the items and people are not always held accountable for these attitudes.

All the nursing professionals, especially nursing aides, mentioned pieces of hospital linen for patients, demonstrating that linen is within their care context<sup>(15)</sup>. Nursing aides belong to the professional category which represents the largest number of professionals who handle linen at the time of hygiene procedures or when providing patient comfort. In addition, they pack all the linen used by physicians in operating theaters, and are also transformation agents in the hospital linen use process, contributing therefore to changes in practices.

Whereas the work activities of the nursing staff place them in close proximity with linen and patient care, the narratives of the physicians and undergraduate students indicate a visible detachment, since they only mentioned work uniforms as hospital linen, but not linen for patients, demonstrating how little they handle care-related linen.

Uniforms are used to identify professionals and avoid contamination of their clothes, since they are frequently exposed to biological, chemical and physical risks. These uniforms must be processed in the hospital's laundry, since they can serve as vectors for the transmission of microorganisms that can cause infection and sickness among workers and patients<sup>(23)</sup>.

The hospital management must raise awareness among patients and other users as to the preservation of items that are part of the hospital's assets<sup>(24)</sup>, through health education, in order to instruct them on the real need to use these linens.

The education process enables a closer connection between training and changes in practices. Its role must be constantly reviewed so that the knowledge produced can build a bridge between formal and practical knowledge. Through continuing education, the development of professionals can be promoted and practices can be transformed<sup>(12)</sup>.

Care organization should focus on comprehensiveness, with interaction between patients and professionals involved in the process, for the building of responses that encompass all the health needs of users, not only those through the execution of technical procedures. It should seek to provide patient comfort and safety<sup>(25)</sup>. In this sense, hospital linen is used not only in procedures, but also for positioning patients, changing body positions and warming the body.

Improper use of hospital linen in care practices is a problem and proposals for educational activities can be built with the participation of those involved<sup>(4)</sup>. It is also necessary to consider the training of health professionals who, during their undergraduate program, do not interact with this universe and are unaware of this care-related sector. The training profile for professionals should focus on the health needs of individuals.

The second analytical category dealt with the following issues: the work of professionals directly linked to care leads to lack of linen through misuse; problems in the organization of the laundry and with its employees; lack of funding to replace linen; loss of linen at the time of hospital discharge, in ambulances or by hospital users; and increased care demand which results in available linen not covering the need.

Hospital laundries seek a more respectful integration of employees as collaborators, since their work is dirty, tiring and repetitive<sup>(24)</sup>. They understand little about hospital organization, the role of the laundry within this context and its importance in the patient recovery process. They perform vital tasks for the effective operation of hospitals, but are placed in a lower category, resulting in social invisibility and little knowledge about their work. Their activities are seen as degrading, i.e., they carry out dirty work by handling something considered repulsive and which never seems to come to an end due to the constant inflow of linen<sup>(20)</sup>.

Dirty work can be a factor that causes suffering, something that strips the person of dignity and is undesirable on the plan of ideals. This type of work is associated with high-risk environments and situations, low pay and career advancement difficulties<sup>(26)</sup>.

Another problem is the removal of hospital apparel by undergraduate students. This phenomenon is related to the social prestige and recognition that this apparel imparts outside of this environment. Increased inpatient demand in public hospitals was also cited as a factor that leads to linen shortages. To minimize this shortage, linen management by the laundry is important<sup>(9,11)</sup>.

In relation to hospital linen processing, only one interviewee reported knowing how the linen is processed and the stages. Health professionals and undergraduate students are not aware of the laundry workflow and do not understand that all those involved with hospital linen can directly contribute to improving this support service, since they are also part of this process.

Awareness needs to be raised among people who handle linen as to the important role they play so that there is no waste and they understand that their actions have a direct impact on the organization of various sectors of the hospital, including the laundry.

As limitations of the study, there were difficulties in the search for references due to the dearth of scientific production.

## ● FINAL CONSIDERATIONS

In relation to the objectives of this study, it was possible to determine that the nursing categories were closely connected with the context of the laundry due to their provision of care to patients. The nursing staff was able to explain the use of the linen and recognized it as essential for quality care. However, important information emerges from all the other professional categories, since their incorrect attitudes are detrimental to care.

It was also observed that the medical professionals, as well as the undergraduate students, were detached from this context. They were only familiar with the uniform used, but did not understand items such as sheets, nightgowns or blankets that are used in care. They were unfamiliar the various types of items that the laundry processes for every type of procedure performed in the hospital.

Health professionals and undergraduate students who worked with hospital linen daily did not have a clear understanding of its importance in care practices. It is as though it were invisible.

In relation to linen processing, the lack of understanding was more significant. Most of the professionals and students did not know about the work performed in the laundry and, therefore, did not consider themselves an integral part of the process and were unaware that their attitudes can negatively affect linen processing and care practices.

This study presents an intervention proposal for continuing education activities with all professionals who use linen in care practices, through training programs. The proposal in reference to academic training involves dialogue with the educational units about this topic in medicine and nursing courses linked to the hospital, in order to build a bridge between theory and practice.

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