

Nursing workers and the practice of adapting and improvising in the hospital environment

*Os trabalhadores de enfermagem e a prática de adaptar e improvisar no ambiente hospitalar**

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ABSTRACT

Aimed to describe the adaptations and improvisations of materials and equipment created in the hospital environment by the nursing workers; and discuss the conceptions of the adaptations and improvisations practice for the nursing work process, from the perspective of the workers. Descriptive qualitative research, developed in a public hospital in Rio de Janeiro, whose participants were twenty nursing workers. Data were collected through semi-structured interview and systematic observation, and analyzed in light of the thematic content analysis. The results revealed several adaptations and improvisations, which happened due to a context of precariousness. This practice aims to ensure that the nursing work process takes place and that care is provided. The adaptations and improvisations of material results in contradictions to the nursing work, because to the extent that it ensures that care is provided, it can compromise the quality of care and the workers' health.

Keywords: Nursing Management; Work Process; Working Conditions.

RESUMO

Objetiva-se descrever as adaptações e improvisações de materiais e equipamentos criadas no ambiente hospitalar pelos trabalhadores; e discutir as concepções da prática das adaptações e improvisações para o processo laboral da enfermagem, na perspectiva dos trabalhadores. Pesquisa qualitativa e descritiva, desenvolvida em um hospital público do Rio de Janeiro, cujos participantes foram vinte trabalhadores de enfermagem. Os dados foram coletados por meio de entrevista semiestruturada e observação sistemática, e analisados à luz da análise temática de conteúdo. Os resultados revelaram várias adaptações e improvisações, que aconteciam devido a um contexto de precarização. Esta prática visa assegurar que o processo laboral da enfermagem transcorra e que o cuidado seja prestado. As adaptações e improvisações de material resulta em contradições para o trabalho de enfermagem, pois na medida em que garante que o cuidado seja prestado, pode comprometer a qualidade da assistência e a saúde dos trabalhadores

Palavras-chave: Gerenciamento de Enfermagem; Processo de Trabalho; Condições de Trabalho.

NOTE

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INTRODUCTION

The objective of this research is the perception of nursing workers about the practice of adaptation and improvisation of materials and equipment in the hospital environment, as well as the workers' point of view on the usefulness of this practice for the nursing work process. This object emerged from the professional performance in public hospitals, where multiple and frequent adaptations and improvisations of material resources were observed due, mainly, to the scarcity of such resources.

It is a context that the practice of adapting and improving materials is, on the one hand, a positive factor, since it ensures care and enables continuity of care⁽¹⁾. Otherwise, this practice causes workloads for the nursing team, since the adaptations and improvisations, in order to be created, require the wearing down of psychosomatic time and energy, and do not always guarantee safety in the care⁽²⁾.

The need to make adaptations and improvisations in materials and equipment almost always results from a context of precariousness that has been undermining the public health service, from the incorporation of neoliberal precepts, among which the pressure to adopt the "Minimal State", affecting the downsizing of the public machine. Therefore, services in which the State should guarantee access and quality to the population, such as health and education, have suffered with increasingly low transfers of funds⁽³⁾.

In this perspective, public hospitals are not adequately supplied with the needs of inputs and equipment, jeopardizing the execution of the work process in these environments. In this way, there is an intense precariousness of the labor conditions, due to the budget cuts, often resulting from a neoliberal policy⁽⁴⁾. As a result of this situation, the lack, insufficiency and / or inadequacy of the material resources to carry out the work activity is verified, causing the workers to have to use handcrafts and devices in order to finish the task, adaptations and improvisations of materials and equipment⁽⁵⁾.

In order to guide the preparation of this study, the following guiding questions were elaborated: What are the adaptations and improvisations present in the nursing work process in the hospital environment? What do nursing workers think about the practice of adapting and improvising for the quality of care provided?

The objectives of this study were: to describe the adaptations and improvisations of materials and equipment created in the hospital environment by the workers; and discuss the conceptions of the practice of adaptations and improvisations for the nursing work process, from the perspective of the workers.

It is believed that this study may contribute to a reflection on a practice that is increasingly being established in public health service environments, which on the one hand seeks to ensure the provision of care, but on the other, has reinforced a context of precariousness

of working conditions, imposing on the worker the need to create strategies for the task to be fulfilled, even in the face of the lack of inadequacy of basic inputs for the development of health procedures.

In addition, the present study can socialize nursing creations - the adaptations and improvisations of materials - that are generated in the adverse context of work, but which can be characterized as something useful and productive for the nursing work process. In this context, from these creations, which materialize from the precariousness and lack of medical and hospital materials indispensable for care, one can think of possible technological innovations for the process and organization of work in health and nursing.

METHOD

The study was characterized as qualitative and descriptive, whose scenario was a general hospital, of public character, located in the city of Rio de Janeiro. Specifically, the following areas were selected as research fields: medical clinic (3 care units), hematology ward (1 care unit), surgical wards (4 care units) and the surgical center, making a total of 9 care unit.

The participants were 20 nursing workers, of this total, 05 were team leader nurses, 04 unit heads nurses and 11 nursing technicians, who worked in the aforementioned sectors. The criteria for selection of the participants were: I) availability of time to provide the information; II) professional practice in that institution for more than one year; III) experience or adaptation and improvisation in the daily work.

The criterion of collecting data with workers who worked in these sectors more than a year ago was due to the belief that they would have already apprehended the work process in the institution and could discuss with more appropriation of aspects that would help in understanding about the object of study.

Data collection took place from April to July 2011, through a systematic observation lasting 43 hours, whose observed situations were recorded in a field diary⁽⁶⁾. The semi-structured interview was also adopted as a data collection instrument, containing a script with the following questions: I) Describe the existence of adaptations and improvisations of materials produced by workers in the ward in which they operate; II) Describe how often adaptations and improvisations are developed in your sector and what are the reasons for such practice; III) Discuss the consequences of adaptations and improvisations for nursing work.

The thematic content analysis was used as data processing technique⁽⁷⁾. The application of this technique gave rise to the following category: Dialectics of adaptations and improvisations: Creativity and emotional suffering.

This study was submitted to the Ethics Committee of the Pedro Ernesto University Hospital and obtained a positive opinion to proceed with the study under protocol number 2882-2011. In this sense, participants' rights were guaranteed through the signing of the Free and Informed Consent Term (FICT), the content of which explained the objectives, contributions and benefits of the research, as well as possible nuisances it might cause in the participants and the contacts of the researchers, among other information.

It should be noted that in order to guarantee the anonymity of the participants a codification was created, in which each one was referred to by means of the letter "E", and by a cardinal number related to the sequence in which it was performed. Thus, the first respondent received code E01, and so on.

RESULTS

Dialectics of Adaptations and Improvisations: Emotional Creativity and Suffering

The workers discussed the quantitative lack of hospital supplies in their daily work, and revealed that the fulfillment of the task depends directly on the material resources. In this perspective, they reported that when these inputs are lacking or when they are inappropriate, the practice of adaptations and improvisations becomes an essential factor for health care to be maintained. In addition, they emphasized that the quantitative and qualitative lack of material comes from the inadequate and diminutive financial resource dispensing by the State to the institution.

"In the sector we suffer from an intense lack of materials, and the lack of some consumer materials has caused us inconveniences, making our assistance difficult and perhaps even rendering good care unfeasible. Thus, in the sector, when it is necessary, we improvise yes to continue the assistance. The improvisation, it comes from the absence of certain material that the hospital does not have because of the little financial resource that the state sends to our hospital" [E03].

Another situation highlighted in the speeches and also confirmed in the observations is the high frequency with which the adaptations and improvisations are created by the nursing workers, and that this practice increases the rhythm of work and results in the psychophysical suffering of the worker.

"The whole time we have to improvise to give better customer service and comfort to him. All the time we do this: improvise, adapt, improvise, adapt. And this increases the volume of work, tires us and physically wears the team" [E02].

"Like I told you, it's the gloves, the bombs, the disposable masks, the toilet paper, the toilet paper, everything is missing, and you think of ways to improvise and improvise all the time. And I know that the months of April and May are the worst to lack material because of the transfer of funds and because of the bids" [E07].

Corroborating with these reports, during the field observations, it was recorded that a professional of the medical clinic unit made six adaptations during two hours of work, which resulted in a high time spent in the execution of the work activities. Such adaptations were observed in bed bathing, venipuncture and dressing activities. When questioned about the elaboration of these adaptations, the worker stated that there were not the following materials: I) traced and oiled, which forced him to use a plastic waste disposal bag; II) bed-bath compresses, resulting in the use of cotton swabs to sanitize the patient; III) polyfix, which resulted in replacement by the trheeway device. In addition, it was observed that during the dressing procedure, the tracing was replaced by the plastic bag to avoid dispersion of bodily secretions in the patient's bed; since the shortage of primary and secondary coverings generated the need to use, for the treatment of the lesions, saline solution and occlusion with damp gauze.

Besides the quantitative lack, there is the qualitative inadequacy of the material resources. Thus, the subjects reported that, although the material is sometimes available, it does not fully meet the demands of the work process, because there are some elements that add importance and feasibility to the material. Thus, in the face of the inadequacy of the devices necessary to perform certain care, these workers develop adaptations in materials to favor a safe, fast and efficient work process. From the following speech it can be deduced this analysis.

"The albumin flask usually comes with the handle itself, but on some occasions the albumin comes in the pure bottle and, to hang, you're going to have to do what? You make a strap with the tape. Hence you are spending material. In addition, you hang the albumin with the adhesive tape, hence the albumin may fall because it is cooled and gets wet from the outside, and if you do not put the tape, not secure. If you drop a bottle of it on the floor is very expensive. It means that neither the patient took nor the adaptation you made was correct" [E16].

"I see, for example, that equipment that does not come with suspire that does not drip. So, what does nursing do? She improvises a sigh. This is because the larger management does not have a vision of the process or wants to" [E11].

It is worth reflecting that some improvised and adapted artifacts can be configured as technological innovations.

In this sense, the participant E19 revealed the effort undertaken by a colleague who works in the neonatal unit to make a mask of phototherapy, understood by him as an interesting creation.

“Phototherapy goggles are available in the market, but they are not of good quality and allow the passage of light due to the size of the cephalic perimeter of the premature newborn. In the ICU sector, a nurse prepares glasses with blue paper, the one that packs the cotton, cuts and wraps it with micropore and uses the elastic of the surgical cap for attachment with help of the plaster. She still does according to the size of the child and still makes kitten models, round, with drawing, without drawing. Is not that a beautiful creation?” [E19].

In the setting of the present study, the adaptations and improvisations are remarkable, so much so that the participant E12 made the following report:

“From adapting small teams so much, bigger teams appeared. In addition, we always use equipment and gauzes to fix the OTT [Orotracheal tube], thus appeared, the fixer. If we wear soaps or gauzes for the bath, we already have bath gowns per patient. In fact, it was us who gave the ideas for the companies to make the products that are there” [E12].

In order to better demonstrate the nature and diversification of these adaptations and improvisations carried out by nursing workers, captured in the speeches and field observations, it was decided to present them by means of a table. The following is a summary of the main adaptations and improvisations found in the scenario investigated in Table 1:

DISCUSSION

The incorporation of innumerable adaptations and improvisation in the hospital scenario stems from changes in the product to meet a different purpose of its original function, thus requiring qualitative interventions in the material. These, express a variability of ideas to attend the creation of a new product, being able to generate inventions for the nursing. It is also worth noting that adaptations and improvisation of materials and equipment can lead to improvements in equipment and nursing patents⁽²⁾.

In this sense, nursing inventions - adaptations and improvisations of materials and equipment - when they are produced, have an impact on the work process of the profession, because it is through them that care is often provided, guaranteeing the continuity of the assistance⁽²⁾.

The creation of adaptations and improvisations is linked to a peculiar context, a conjuncture of situations that do not repeat themselves in a standardized way, nor

are they usually predictable. Thus, workers who create such artifacts need to use clever intelligence to materialize their creations⁽¹⁾.

Clever intelligence refers to the mobilization of a peculiar knowledge, inherent in those who know deeply the professional practice, intrinsically linked to creative behavior. Also known as practical intelligence, which has roots in the body, perceptions and sensitive intuition. It is in the very heart of what we call the office^(8:133).

The practice of adaptation and improvisation involves an alternative doing, which is also analyzed as a material reappropriation of a way of using or constituting artifacts by means of an attitude of differentiation, improvisation, adaptation, adjustment, transformation, or appropriateness about an available material resource, often for the purpose of remedying a specific need⁽⁹⁾.

It should be noted that some adaptations and improvisations were adopted and incorporated into the nursing work process, in view of their effectiveness in the work dynamics. In this sense, the device is adapted to check for hourly diuresis without connection to a bladder catheter, but rather, connected to a urinary incontinence device. This involves the use of a 1000 ml storage bottle with a graduated side adhesive tape attached to a closed-system urine collection bag⁽²⁾.

It is important to express the concept of adaptation that the present study is based on, which demarcates the change of an input to meet the need imposed by the real work conditions⁽¹⁰⁾. It follows from the explicit conceptualization that an adaptation may even generate an invention, due to the discovery made about a product or equipment.

Invention is the intentional, directed effort, autonomously regulated by the agent, to achieve preconceived results or effects, of greater or lesser technical complexity, and demonstrated, after examination and evaluation, not to be an obvious consequence of the application of previously available knowledge, and represent real progress towards the pre-existing technical acquis within the reach of all^(11:1).

In turn, the etymological origin of the term impromptu comes from the Latin *improvisus*, which designates what is “sudden, sudden, unforeseen.” It is defined as “intellectual product inspired by the occasion itself and made suddenly”^(12:1873). In this perspective, the Brazilian dictionary distinguishes itself by the notion of improvisation as an intellectual invention inspired by the occasion and without prior preparation, and adaptation refers to adjusting one thing to another, to molding, to fitting⁽¹³⁾.

Table 1. Adapted and improvised materials in the hospital environment. Rio de Janeiro, RJ, Brazil, 2012.

ADAPTATIONS FOUND IN THE HOSPITAL ENVIRONMENT
Adaptation of non-sterile gauze and cotton to serve as bath towels
Adaptation of surgical cap added with gauze to serve as a bath towels
Adaptation of serum bottle as suction drain - "Sorovac"
Adaptation of syringe as suction drain - "Seringovac"
Adaptation of the colostomy bag to catheter drainage bag
Adaptation to increase the size of the serum equipment with the use of plaster
Adaptation of the diuresis drainage system
Adapting two May pillowcases to replace gynecological leggings
Adaptation of gallon of cut solution for placement of the surgical piece
Adaptation of foley catheter as gastrostomy tube
Adaptation of serum or polyfix equipment in gastrostomy
Adaptation of external ventricular bypass drainage (EVBD) as a closed urine collector
Adapting the sterile glove finger as a penrose drain
Adaptation of the elastic of the surgical mask as a fixation device of the macronebulization mask
Adaptation of gauze as tracheal gold fixation device - OTT
Adaptation of hydraulic material for use in the dialysis process
Adaptation of continuous macronebulization with continuous saline dripping into a nebulizer
IMPROVEMENTS FOUND IN THE HOSPITAL ENVIRONMENT
Improvisation of oil with a sheet
Use of plastic waste disposal bag such as oil
Use of absorbents as disposable diapers
Use of common equipment to replace infusion pump equipment
Use of whey shell as glove
Use of the discarding carton of piercing-cutting material for disposal of chemotherapy bags
Use of solid waste bags of different colors from the standard ones for disposal of materials
Improvisation of the albumin loop using tape
Improvisation of glass ampoule to occlude the probe
Improvisation of the transofix with the use of the 40x12 needle
In the absence of common serum equipment, the microdroplets
Improvisation of transofix with use of infusion pump serum equipment
Replacement of probe type: nelaton probe by aspiration probe
Improvisation of oxygen whip for aspiration
Improvisation of clips in the colostomy bag in order to occlude the exit of the feces
Improvisation of cheese gauze as secondary covering making the paper of binding
Improvisation of phototherapy mask with use of the cotton wrap, micropore and elastic of the cap
Improvisation of tapered serum vial on top used with duckling

Source: survey data.

The assertion that improvisation and adaptation of materials are carried out to cope with the lack of material and that causes suffering in the workers and negative alteration of the labor process is corroborated by the results of some researches⁽²⁻⁵⁻¹⁴⁻¹⁵⁻¹⁶⁾. Such research indicates that the frequent need to improvise and adapt, or to try to transfer the patient to other institutions with better resources, seems to be a constant in Nursing work, and is responsible for causing psychophysical erosion in workers. In addition, this practice intensifies the work pace,

raises cadences, reduces work breaks, and doubts about the quality of care⁽⁵⁾.

In contrast, another study⁽¹⁷⁾ indicates that the improvisation and adaptation of material resources can serve as a mitigator of stress at work and of promoter of mental health, since it contributes to encourage the creativity of the worker, creating a sense of usefulness and strengthens the feeling of domination over the labor process.

Another study^(18:283) also points out that, “improvisation practices happen in health services, either to adapt a technique to what is available for use, or because they are already part of the routine.” Corroborating, it is inferred that the lack of permanent material and/or consumption and of human resource require that it be created, that it be made of a nothing an all so that there is no shortage of the nursing care to be rendered⁽¹⁹⁾.

In turn, the lack of resources, human and material, requires that it be created, adapted and improvised in order to ensure the provision of nursing care. In this sense, it turns out that this practice brings to improvisations and adaptations a technological clothing in which there is emergency for patents, records and innovative creations. That is, guarantee for the technical, scientific and technological development of the nursing profession⁽²⁰⁾.

However, for nursing workers, the precariousness of the health sector is the preponderant factor for the existence of improvisations and adaptations, citing the quantitative reduction of materials in the institution, as well as the inadequacy of some materials for the dynamics of work in the institution. It should be emphasized that most of the participants had an average of 12 years in the institution, which shows that they have lived in this context since the emergence and consolidation of the neoliberal model in the hospital, allowing them a broad analysis on the evolution of precariousness in the institution in question⁽³⁾.

CONCLUSION

Nursing workers are forced to adhere to the practice of adapting and improvising, predominantly to the precariousness of working conditions, represented by the scarcity and/or inadequacy of material resources, either by the inefficient management of such resources and/or the transfer insufficient funds to meet the demands of hospital care.

It was also verified that multiple and diversified adaptations and improvisations are elaborated, which interfere in the nursing work process, in order to increase the work rhythm, the volume of work, changing the operative mode of Nursing. On the other hand, there is the conception that these creations guarantee that the care is offered, enabling, in a way, the health care and the effectiveness of the Nursing work process, although some participants question the safety of the adaptations and improvisations made by the nursing collective for the quality of care provided.

It was found that the organization of work, in the way it is configured, leads the workers to elaborate the adaptations and improvisations, since it presents a great distance between the prescribed and the real, and the workers, desiring to give an account of the task, elaborate strategies, adjustments and regulations in the labor process, emerging such creations in order to fill the lack of material labor instruments.

Otherwise it has been found that the practice of adapting and improvising has become a habit among workers, who automatically practice them. For, there is the conception that they are facilitators of the work process, allowing the fluidity of care actions. Dialectically, while facilitating the work process and stimulating creativity, they cause the wear and tear of the workers, for there is the high and unceasing use of the psychosomatic energy of the worker for the accomplishment of adaptations and improvisations.

In this perspective, the practice of adapting and improvising requires not only the mobilization of a series of personal resources of the cognitive, affective and psychomotor type, but also demands objective aspects that involve the necessary inputs to the creation of adaptations and improvisations. In this way, the worker, in addition to the materials he needs to adapt and improvise, requires the creative and inventive skills, attention and careful observation of the circumstances and effectiveness of the tricks put into practice. Thus, the mobilization of such attributes incessantly and in precarious conditions can also sick the worker and compromise nursing care.

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