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Safety of Healthcare Workers in the Context of the COVID-19 Pandemic: Nurses' Understanding

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Theme: Health promotion

Contributions to the discipline: This study promotes innovative technologies to mediate the processes of continuing education in health. In addition to programs and policies, providing spaces for dialogue and reframing professional knowledge and practices is essential. New questions and reflections are raised aimed at innovation in nursing care in the light of complex thought.

Abstract

Objective: To understand the meaning of worker safety in healthcare during a pandemic from the perspective of nurses, based on interventions related to continuing education in health. **Materials and method:** This action-research study is based on the constructivist paradigm. The study was conducted between August 2020 and April 2021 through open individual interviews, mediated by guiding questions without prior validation. The interviews were conducted with 19 nurse managers of inpatient units who had previously participated in a schedule of continuing education interventions in a university hospital in the South region of Brazil. Research data were analyzed based on Minaryo's thematic content analysis. **Results:** The research data resulted in two thematic categories: "Reframing knowledge and professional practices" and "From banalization to resumption of preventive care." The categories indicate that, in addition to specific and normative educational processes, it is necessary to promote self-reflection and individual and collective self-examination. **Conclusions:** From the understanding of nurses, the pandemic period aroused greater reflection and self-examination among nursing/health professionals, especially concerning preventive health care, which is addressed as secondary.

Keywords (Source: DeCS)

Nursing research; occupational health; continuing education; coronavirus; pandemic.

4 Seguridad del profesional de salud en el marco de la pandemia de covid-19: comprensión de enfermeros

Resumen

Objetivo: comprender el significado de seguridad del profesional de salud en período pandémico desde la perspectiva de enfermeros, a partir de intervenciones relacionadas a la educación permanente en salud. **Materiales y método:** se trata de una investigación acción fundamentada en el paradigma constructivista. El estudio se llevó a cabo entre agosto de 2020 y abril de 2021, por medio de entrevistas individuales abiertas, mediadas por cuestiones orientadoras, sin validación previa, con los 19 enfermeros gestores de unidades de hospitalización que previamente habían participado en un cronograma de intervenciones de educación permanente en salud, en un hospital de enseñanza del sur de Brasil. Se trataron los datos con base en el análisis de contenido temático de Minayo. **Resultados:** los datos de la investigación resultaron en dos categorías temáticas: “(Re)significación de saberes y prácticas profesionales” y “De la banalización a la retomada de cuidados básicos”. Tales categorías denotan que, más allá de procesos educativos puntuales y normativos, es necesario despertar la autorreflexión y autocrítica individual y colectiva. **Conclusiones:** desde la comprensión de enfermeros, el período pandémico ha despertado mayor reflexión y autocrítica entre los profesionales de enfermería/salud, principalmente en relación con los cuidados básicos de salud, los que con frecuencia quedan relegados a un segundo plano.

Palabras clave (Fuente: DeCS)

Investigación en enfermería; salud laboral; educación continua; coronavirus; pandemia.

Segurança do trabalhador de saúde no contexto da pandemia da covid-19: compreensão de enfermeiros

Resumo

Objetivo: compreender o significado de segurança do trabalhador de saúde em período pandêmico na perspectiva de enfermeiros, a partir de intervenções relacionadas à educação permanente em saúde. **Materiais e método:** trata-se de uma pesquisa-ação, fundamentada no paradigma construtivista. O estudo foi realizado entre agosto de 2020 e abril de 2021, por meio de entrevistas individuais abertas, mediadas por questões orientadoras, sem validação prévia, com os 19 enfermeiros gestores de unidades de internação que, previamente, haviam participado de um cronograma de intervenções de educação permanente em saúde, em um hospital de ensino do Sul do Brasil. Os dados de pesquisa foram tratados com base na análise de conteúdo temática proposta por Minayo. **Resultados:** os dados de pesquisa resultaram em duas categorias temáticas: “(Re)significação de saberes e práticas profissionais” e “Da banalização à retomada de cuidados básicos”. As categorias denotam que, para além de processos educacionais pontuais e normativos, é preciso despertar a autorreflexão e a autocrítica individual e coletiva. **Conclusões:** na compreensão dos enfermeiros, o período pandêmico despertou maior reflexão e autocrítica entre os profissionais de enfermagem/saúde, principalmente com relação aos cuidados básicos de saúde, frequentemente relegados a um segundo plano.

Palavras-chave (Fonte: DeCS)

Pesquisa em enfermagem; segurança dos trabalhadores; educação continuada; coronavírus; pandemia.

Introduction

In the context of the coronavirus pandemic (COVID-19), Brazil has been facing a worker safety crisis at various levels of the healthcare system. Many workers spend extended periods in the workplace and, as they provide direct care to patients with the virus, become more vulnerable to risks and adverse events (1, 2).

A study (3) showed that COVID-19 caused intangible consequences on global health systems, the economy, daily life, education, travel, leisure, work, and health, especially for health professionals. In addition to negative impacts on the physical and mental health of nursing/health professionals, headaches were identified as one of the main symptoms associated with using personal protective equipment (PPE).

Due to the COVID-19 pandemic, nursing workers and healthcare professionals face adverse situations that affect their physical, emotional, social, and spiritual health. Besides, they must deal with direct exposure to infection, exhaustion at work, and restricted contact with family. These factors are not restricted to the individual dimension; they also interfere in decision-making and interprofessional relationships (4).

Therefore, the COVID-19 pandemic unveiled the need to think about/rethink the work of nursing and healthcare professionals at the forefront of disease prevention programs and fighting against the most severe cases, as mentioned. Among the healthcare professionals most exposed to contamination, the nursing team stands out in Brazil, as 57,838 nursing professionals had died from the disease as of July 22, 2021 (5), which is a public health emergency and one of the most significant challenges to humanity and science (6). In this scenario, the World Health Organization and the International Labour Organization made recommendations to provide national and local governments, employers, and workers with practical guidance on preventing COVID-19 outbreaks at work, aiming to minimize worker exposure and transmission of SARS-CoV-2 (7).

Considering the above, we wondered how nurses understand worker safety in healthcare amidst the COVID-19 pandemic. Therefore, this study aims to understand the meaning of worker safety in healthcare during a pandemic from the perspective of nurses, based on interventions related to continuing education in health.

In this study, the pandemic will be regarded as a complex phenomenon that cannot be reduced to a predictable mathematical pattern. For Edgar Morin (8), author of *Complex Thought*, uncertainty, unpredictability, and contradictions are part of the human condition; thus, the author suggests solidarity and ethics as possible paths for reconnecting beings and professional knowledge. Moreover, this study presents reflections to expand perspectives and enable new ways of thinking and acting for the nursing team.

Materials and method

This qualitative action-research study (9) is based on the constructivist paradigm. It was conducted through continuing health education interventions in the work setting and individual interviews with nurses who had participated in these interventions. The study is part of the university research project “Learning Incubator,” approved by the Research Ethics Committee with the Submission for Ethical Appreciation Certificate 11520312.3.0000.5306.

The expanded research project “Learning Incubator” was implemented in 2012 in a university hospital in the South region of Brazil with around 130 beds and 230 employees. It intended to welcome new employees and boost continuing education in health. The Learning Incubator is a tangible welcoming space and a teaching and learning technology capable of valuing talents, enhancing initiatives, and promoting critical-reflective thinking in the daily practice of nursing professionals (10).

The first stages of action research (problem identification, survey, analysis, and meaning of the data) were conducted through interventions with the nursing team of the university hospital, between August 2020 and April 2021, and mediated by the Learning Incubator. The interventions identified in a previous survey with the nurses responsible for the inpatient units included correct use of PPE, donning and doffing procedures, (re)signification of hand washing, and measures to control COVID-19.

These interventions were organized on a timetable and conducted as previously scheduled with the nurses responsible for the inpatient units to include the most significant number of nursing professionals in each work shift. The interventions consisted of conversation circles, sharing of the participants’ practical experiences, and theoretical-practical simulations, in which the participants perceived themselves as actors of their process of reframing the practice. All interventions were promoted by university students and professors and mediated by the Learning Incubator.

A total of 148 nursing professionals from the different hospital inpatient units actively participated in the interventions. An average of three professionals from each inpatient unit took part in each activity, according to the enrollment scale. All the interventions were in-person, observing sanitary protocols.

At the end of the intervention schedule, data were collected through individual interviews with nurses who had participated in the continuing health education process. Data collection did not follow a prior sampling method, as only 19 nurse managers of the institution’s inpatient units were included in this phase. The nurse managers were formally invited to the interview and responded affirmatively. Nurse managers on vacation or away from work for some reason were excluded from the study.

The interviews were conducted with the 19 nurse managers based on the following open-ended guiding questions, formulated by the researchers, with no prior validation:

- Tell us about your perception and evaluation of the interventions focused on the safety of the nursing worker.
- What did this process awaken in you?
- What has changed in your way of thinking and acting during the COVID-19 pandemic?
- What do you think can be different in your daily practice to ensure patient safety and yours?

The interviews were conducted after the signature of the informed consent form by a researcher with experience in qualitative research, who helped guide the intervention schedule. The interviews, approximately 40 minutes long each, were recorded and subsequently transcribed for data analysis.

The research data were analyzed according to Minayo's thematic content analysis technique (11), which is based on qualitative criteria systematized in three interconnected phases: description, analysis, and interpretation. The analysis process began with data collection when researchers looked for patterns of meaning and possible issues of research interest in the data. The analysis involved going back and forth from database to coded fragments to data analysis. This process culminated in data reporting. The notes taken in a field diary and the literature review were also considered.

In the first stage, called "Pre-analysis," the subject matter and aims of the study were reviewed, constructing the initial analysis indicators, such as the definition of record and context units. The corpus was developed according to the validity rules: exhaustion, representativeness, homogeneity, and pertinence. In the second stage, "Material Exploration," the text was broken down into units and, then, regrouped into categories of analysis according to the organization of messages and divided elements. In the third and final stage, "Data Processing and Interpretation," the raw data were interpreted, determining inferences of meaning that resulted in the delimitation of the final thematic categories (11).

The intervention and data collection process followed the recommendations of Resolution 466/2012 issued by the National Health Council (12). The recommendations of Curricular Letter 2/2021 issued by the National Research Ethics Commission were also considered (13). The participants' speeches were identified in the text by the letter "E" followed by a number corresponding to the order of speeches: E1, E2... E19, to maintain their anonymity.

Results

The research data from the interviews conducted with the 19 nurse managers were organized and then analyzed based on Minayo's thematic content analysis. The analysis resulted in two thematic categories: "Reframing knowledge and professional practices" and "From banalization to resumption of preventive care." The categories show that, in addition to specific and normative educational processes, it is necessary to promote self-reflection and individual and collective self-examination.

Reframing knowledge and professional practices

The COVID-19 pandemic caused intense changes in healthcare settings. As frontline professionals, the participants of this study showed that the pandemic period aroused more reflection and self-examination among nursing/health professionals concerning knowledge and practices of health self-protection, as follows:

To deal with the pandemic, I believe we must follow all the guidelines and reflect on individual and collective safety measures. We must take care of our safety first so we can take good care of patients. We all learn the right things, but they need to be put into practice. (E11)

The interventions allowed discussions and personal reflections. Nursing professionals who actively take part in the activities can have new perceptions and attitudes towards themselves and others. (E14)

The participants' speeches proved the importance of spaces for reflection promoted and mediated by the Learning Incubator. It is essential that professionals feel they are part of the work process and not mere reproducers of protocols, norms, and routines. From this approach, interventions on worker safety translated into prospective acts of self-examination of personal and collective attitudes and conduct and self-assessment of daily practices:

This process aroused greater reflection on my attitudes and stands. We cannot become machines. Moments of reflection and sharing make us grow and review our daily practice. Theories change and need to translate into practice. (E10)

In addition to a formal space for continuing education, the Learning Incubator allowed participants' meaningful learning while perceiving and recognizing themselves as actors in constructing knowledge. Professionals must recognize themselves as learners throughout their life, as in the following speech:

Learning must be continuous and permanent throughout life. There is always something to learn, and we will never know everything. Each person needs to realize this, but the pandemic made us perceive this dynamic even more because we had to relearn and renew many theories in practice. (E5)

It is interesting how the pandemic made us review preventive care such as hand washing. Sometimes we act mechanically; we do not reflect on our actions. The pandemic made us rethink many things in our daily practice. (E9)

The speech of one participant demonstrated the relevance of having tangible spaces for dialogue and welcoming professionals in health institutions. This same interviewee recognizes that nursing work is technical, linear, and quotidian and demands new and continuous recreation and transformation. In this sense, continuing education in health goes beyond the idea of “passing on information” or “complying with rules and regulations” to meet legal requirements, as explained below:

I increasingly realize that we need to renew the methodologies and approaches of continuing education in health. Professionals can only rethink their practices when they feel part of the process, contribute ideas, and get involved. (E12)

More than passing on information and following rules, continuing education involves the dynamics of life, of feeling part of the work process. Work safety cannot be perceived as an external imposition but as an internal movement that starts in the conscience of each involved. (E17)

Based on the results presented, continuing education in health needs to promote, sensitivity, motivation, teamwork, and the desire for constant renewal, in addition to providing normative content. Under this approach, stimulating work safety requires promoting self-motivation and self-awareness for unique and permanent learning, that is, throughout life.

From banalization to resumption of preventive care

According to the interviewees, the COVID-19 pandemic favored the resumption of preventive care measures, often banalized or pushed to the background. The participants’ speech showed that reinforcing the importance of preventive care is not enough; it is also necessary to raise awareness and collaboration mechanisms that can ensure the correct and continuous use of PPE, such as face masks and others:

It is difficult to define the atypical and adverse moment we are going through, in which we need continuous reinvention... Every day, we have new processes. However, I think the pandemic promotes innovation and the resumption of essential care for individual and collective health. (E3)

It was shown that the COVID-19 pandemic reinforced the need to reframe health care, crystallized by techniques and routines. The speech of one participant indicated that health professionals easily “fall into a routine,” making the care provided technical and repetitive. Another speech showed that many professionals are driven by the “norms and demands” of managers, which will not necessarily reflect in better professional practices:

The pandemic allowed the resumption of elementary care measures and required new care practices that must be considered for worker safety. We cannot fall into a routine and keep providing specialized care. (E18)

Some professionals are driven by the demands of managers. Nevertheless, these demands are no longer acceptable. Many things have been banalized. I believe that professionals must be involved and actively participate in discussions and reflections. The motivation must be internal and not external. (E19)

Another recurring aspect is the construction of fertile environments/spaces for rethinking daily work practices. In addition to continuing education in health, it is necessary to create opportunities that welcome and encourage changes in individual and collective attitudes. It is essential that professionals feel encouraged and motivated to follow their process of rethinking health care. Although this participatory intervention process has been underway for several years at the studied institution, we noted that, for some participants, interventions are a “waste of time”; that is, they still do not find meaning in this path. It is necessary to consider that continuing education in health is not an isolated and linear tool but a unique and complex process:

It is necessary to raise awareness among workers who consider continuing education a waste of time. Some still do not understand this dynamic, interfering in the whole process. (E1)

I always wonder: “How do I reach all professionals?” I think the lack of time is related to a lack of understanding of health education dynamics. People are different and need to be regarded as different. (E7)

With the expansion and institutionalization of restrictive protocols related to the COVID-19 pandemic, multiple normative documents were issued, requiring even greater involvement from the nursing team. The participants realized, however, that the addition of normative documents did not necessarily lead to better work safety practices. They recognized that protocols and norms need to be accompanied by movements that allow each professional to feel part of the training course:

More than making and following norms, flowcharts and protocols already well implemented and defined internally, the personal and collective awareness of those involved is necessary so that work can be done as a team. (E9)

I feel that we need to reestablish some care measures that were banalized in our daily routine. This requires effort and involvement from each professional. (E12)

We also noticed that interventions related to work safety are a tool to reorganize the ways of being and doing individually and collectively. Participants recognize that this process will affect the service and, consequently, the welcoming and promotion of good practices in patient/user care and safety by colleagues and families:

The interventions performed are crucial for the professional to realize again and again that their safety affects the safety of the patient and their family members. More than an external action, worker safety needs to be taken as a guiding principle in practice. (E13)

The participants' speech showed that the banalization of care is partly due to the approaches adopted in continuing education in health. In addition to normative training, lectures, and simulations, it is necessary to promote individual and collective self-reflection and self-examination. Healthcare professionals must perceive themselves as protagonist and co-responsible for their training through-

out life. Under this approach, worker health results from internal movements promoted and stimulated through significant spaces for teaching and learning.

Discussion

The pandemic caused by the new coronavirus transformed all people's lives, particularly healthcare professionals', including the nursing team (14, 15). The pandemic also opened up possibilities for innovation and transformation, especially in professional practices crystallized by isolated and mechanical work. Discussing safety in nursing/health work under this approach reveals the need to revisit vertical and uncritical intervention approaches and explore theoretical and methodological frameworks for continuing education in health.

Therefore, in addition to its obvious negative repercussions, the COVID-19 pandemic elicited the need for preventive care measures essential for life in society, such as hygiene, cleaning, and hand washing, among others. From Morin's understanding, one of the leading researchers of complex thought, all chaos, in this case, the ongoing pandemic, may give rise to a new order on personal, collective, and global levels (16, 17).

Among other purposes, complex thinking aims to question the opposition between facts and nature and encourage reflection on the meanings, values, and truths concerning science. For Morin, science itself has forged, for decades, linear and simplifying logic that have disconnected the observer from the object. Just as the objects were separated from their context and the observer's reality, the disciplines were also fragmented, hindering inter-professional exchanges and dialogue between sciences (18). These and other reductions and simplifications have unified, quantified, and disregarded any "disorder" to keep health institutions' normative and regulatory order (19).

As in other areas, nursing has developed with the paradoxical belief that order needed to prevail over disorder and, just like that, any adverse advent was reduced and diverted from any interactive and (re)creative possibility. This absolute and regulatory order, generally regarded as an irrevocable truth, was expressed in caring, relating, leading, and promoting continuing education in health (20). Institutionalizing this absolute and unquestionable order harmed the process of caring for and educating in health, especially in nursing. Thus, everything predictably ordered and controllable was valued, contributing to leaving aside essential care.

Moreover, the following questions emerge: Why have care measures considered essential to health and good human relationships been disregarded by nursing/healthcare professionals? What thoughts/frameworks prevailed and were imposed in the daily life of nursing/

healthcare professionals so that fundamental care was neglected? How do we promote work safety responsibly and collaboratively? Finally, what new knowledge and practices need to be revived and reframed in the daily life of nursing/health professionals in the light of novel approaches?

Without significant premeditation, nursing/health professionals organized and reinvented themselves in an agile and competent way in a short time, demonstrating that, disorder caused by the pandemic makes it possible to perceive outbursts, go beyond possibilities, enhance initiatives, and reframe theories and practices (21). One study showed that, beyond its adverse effects, the pandemic allowed reflections and resignifications, (re)creation of self-accomplishment strategies, and the leading role of new ventures (22).

From the order-disorder-order perspective, complex thought promotes the expansion of knowledge, the connection of ideas, and the (re)signification of practices; thus, the possibility of finding new paths arises amidst uncertainty, complexity, and chaos (7). The speech “Many things have been banalized. I believe that professionals need to be involved and actively participate in discussions and reflections. (E19)” indicates that, even in disorder and apparent failure, infinite possibilities for renewal emerge. Understanding disorder from this approach does not mean looking at the pandemic and lamenting the lost opportunities but rather enhancing them to achieve a new and more promising social order. However, what is the new order desired for nursing/health?

The COVID-19 pandemic, characterized by Morin as the disorder of disorder, could lead to contradictory processes, stimulating imagination and creativity in searching for innovative solutions and reactions and returning to the stability of the past. In a journal interview, Morin declared that he does not know whether it is possible to expect the worst, the best, or both, but he believes that we are moving towards new uncertainties with the possibility of a new order (23).

The pandemic calls us all to reflect and understand that nursing/health science does not have a repertoire of absolute truths and lasting and unquestionable theories. Instead, it invites us to reshape our thoughts and professional practice based on approaches that can question, expand, and explore new and more complex theoretical and practical interventions without deeming them as the truth or as conclusive (24).

Therefore, the aim here was not only to present specific answers and discussions but also to posit new questions. Nursing/healthcare professionals must be open to new possibilities, use the pandemic period to reframe knowledge and practices related to care, and promote continuing education in health based on approaches that expand and instigate human thoughts.

From the nurses' understanding, the meaning of work safety in health during the pandemic aroused more professional reflection and self-examination, especially about preventive care, which is often neglected. In addition to resuming preventive care, such as washing hands and wearing a mask, it is also necessary to create mechanisms for raising awareness and reframing knowledge and practices.

In conclusion, developing interventions to promote work safety requires much more than updating and reframing emergency norms and protocols in the context of the COVID-19 pandemic. Furthermore, it is necessary to create welcoming and stimulating spaces in which nursing/healthcare professionals feel comfortable and protected, recognized in their abilities, and strengthened in their convictions.

In turn, a limitation of this study is the collection of data in a single hospital institution with only 19 nurse managers of the inpatient units. Another limitation is associated with a lack of studies on the safety of health workers during a pandemic, which made it difficult to compare the results with earlier research.

Conflict of interest: None to declare.

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