







Structural empowerment of nurses working in an emergency room: a mixed methods study

Empoderamento estrutural de enfermeiros atuantes em pronto socorro: estudo de método misto

Empoderamiento estructural de enfermeros que trabajan en primeros auxilios: un estudio de método mixto

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ABSTRACT

Objective: to assess the structural empowerment of nurses working in an emergency room. **Method:** this mixed-method study was conducted between February and June 2019 in an emergency room of a university hospital in southern Brazil. The quantitative data were collected from 21 nurses, using a sociodemographic characterization form and the Conditions for Work Effectiveness Questionnaire (CWEQ-II), and were subjected to descriptive statistical analysis. The qualitative data were obtained through semi-structured interviews of 14 nurses, and analyzed using content analysis. **Results:** the level of nurses' structural empowerment was moderate ($18.06 \pm SD 0.9$). The qualitative results highlighted factors influencing structural empowerment, such as: partial access to support, formal and informal power, participation in projects, and insufficient material, human resources, time, and organizational support. **Conclusion:** structural empowerment for nurses in the workplace favors their professional development and performance.

Descriptors: Emergency Medical Services; Nursing; Emergency Nursing; Empowerment.

RESUMO

Objetivo: avaliar o empoderamento estrutural de enfermeiros atuantes em pronto socorro. **Método:** estudo de método misto, realizado entre fevereiro e junho de 2019, em pronto socorro de hospital universitário no Sul do Brasil. Os dados quantitativos foram coletados com 21 enfermeiros, por meio da ficha de caracterização sociodemográfica e do Questionário de Condições de Eficácia no Trabalho II e submetidos a análise estatística descritiva. Os qualitativos foram obtidos a partir de entrevista semi-estruturada, com 14 enfermeiros e analisados mediante análise de conteúdo. Aprovado pelo Comitê de Ética em Pesquisa. **Resultados:** os enfermeiros possuem um nível moderado de empoderamento estrutural ($18,06 \pm dp 0,9$). Destacaram-se aspectos que influenciaram, como: acesso parcial a suporte, poder formal e informal, participação em projetos, insuficiência de recursos materiais, humanos, tempo e suporte organizacional. **Conclusão:** o empoderamento estrutural no ambiente de trabalho dos enfermeiros permite o desenvolvimento e desempenho profissional dentro do ambiente laboral.

Descritores: Serviços Médicos de Emergência; Enfermagem; Enfermagem em Emergência; Empoderamento.

RESUMEN

Objetivo: evaluar el empoderamiento estructural de enfermeros que trabajan en primeros auxilios. **Método:** estudio de método mixto, realizado entre febrero y junio de 2019, en la sala de primeros auxilios de un hospital universitario en el sur de Brasil. Se recogieron datos cuantitativos junto a 21 enfermeros, utilizando el formulario de caracterización sociodemográfica y el Cuestionario sobre Condiciones de Eficacia en el Trabajo II y se sometieron los datos a un análisis estadístico descriptivo. Los cualitativos se obtuvieron de una entrevista semiestructurada, junto a 14 enfermeros y se analizaron mediante análisis de contenido. Aprobado por el Comité de Ética en Investigación. **Resultados:** los enfermeros tienen un nivel moderado de empoderamiento estructural ($18.06 \pm DE 0.9$). Destacaron aspectos que influyeron, tales como: acceso parcial al apoyo, poder formal e informal, participación en proyectos, insuficiencia de recursos materiales, humanos, tiempo y apoyo organizacional. **Conclusión:** el empoderamiento estructural en el ambiente laboral de los enfermeros permite el desarrollo y desempeño profesional dentro del ambiente laboral.

Descritores: Servicios Médicos de Urgência; Enfermería; Enfermería de Urgência; Empoderamiento.

INTRODUCTION

In the organizational context, the nurses' work is directed towards care management and, therefore, they perform their actions with the objective of planning, organizing, supervising, coordinating, evaluating, leading the team and managing human and material resources¹⁻³. Given these demands, nurses' empowerment becomes essential as a management model for the health institutions².

Use of this concept has increased since the 1990s, based on studies that resulted in the Organizational Empowerment Theory. According to this theory, empowerment is understood as the result of social structures in the workplace, which allow the professionals to be satisfied and more efficient, when they are given more responsibilities and autonomy in decision-making⁴.

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It is noteworthy that, at the international level, there are already studies referring to structural empowerment, but in Brazil, surveys on this subject matter are still incipient, which suggests the need for studies with robust methods in specific scenarios.

The concept of structural empowerment derives from a work environment that provides workers with effective access to resources that make work fulfilling and enhance performance. An example is the possibility of personal and professional development within the organization⁴.

It is believed that the urgency and emergency environment deserve investments in research studies that address nurses' empowerment, as a number of authors mention that these locations correspond, for a large part of the population, to the main alternative to solve the care-related problems of care in the health network. In this sense, the Emergency Room unit is one of the areas of the hospital with significant flow, in addition to the high complexity of the care provided. In this scenario, the professionals experience situations of imminent risk to life and, for this, the Nursing team must be duly trained to act⁵.

In light of the above, the following research questions were outlined: Which is the level of structural empowerment of nurses working in emergency rooms? How do nurses working in an emergency room perceive the structural empowerment dimensions in their practice environment? This study aims at assessing the structural empowerment of nurses working in emergency rooms.

METHOD

This is a cross-sectional and exploratory-descriptive study with a mixed approach. The strategy used was parallel-convergent, which is characterized by the simultaneous collection and analysis of qualitative and quantitative data⁶. Collection of quantitative and qualitative data was carried out from February to June 2019.

The study setting was the Emergency Room for Adults of a public university hospital in the Brazilian South region, which meets the referred demand of the Medical, Surgery and Traumatology Clinics in 43 municipalities. The study population consisted of nurses who perform care activities in the context of the Emergency Room for Adults. The team working in this scenario is comprised by 26 nurses.

Quantitative data collection consisted of nurses who met the following inclusion criteria: being active at the time of data collection and working in the selected unit for at least three months. Nurses who had a direct link with the research group promoting the survey were excluded. All 26 professionals were invited to participate in the research; however, after applying the criteria, one nurse was excluded and four refused to participate in the research, totaling 21 participants.

They answered two self-administered instruments. The first contained the sociodemographic and professional characterization form. The second was the *Condições de Eficácia no Trabalho II* (CET-II) questionnaire, which is an adapted and validated version for use in Brazil of the Conditions of Work Effectiveness-Questionnaire-II (CWEQ-II)⁷. CET-II, whose objective is to measure the Structural Empowerment constructs, has 20 items divided across the six constructs of structural empowerment, namely: (1) Opportunity (2) Information (3) Support (4) Resources (5) Formal power and (6) Informal power. It also has a global empowerment construct, containing two items that validate it⁷, which were not used in this study.

The measurement scale used for CET-II is of the *Likert* type. The items in each of the constructs are added up and a mean of each of the constructs is calculated, in order to provide a score that varies between 1 and 5. The sum of the constructs can vary from 6 to 30, with values between 6 and 13 meaning low empowerment levels; between 14 and 22, moderate empowerment levels; and between 23 and 30, high empowerment levels, that is, high scores represent greater perceptions of empowerment⁷.

For the analysis of the quantitative data, they were tabulated by double typing in Excel – Windows/XP and analyzed using the *Statistical Package for the Social Sciences* (SPSS) program, version 21. To describe the participants' profile and the empowerment level, descriptive statistics were used with absolute (n) and percentage (%) frequencies of the categorical variables and calculation of position and dispersion measures (mean, median, standard deviation, minimum and maximum values) for the continuous variables.

Of the 21 nurses participating in the quantitative stage, 14 granted semi-structured interviews. In the qualitative stage, the following selection criteria were adopted: nurses who work in different work shifts and have some period of experience in the locus equal to or greater than 12 months. They were approached randomly and verbally invited to participate in the study. The interview script consisted of 10 questions, prepared by the researchers, dealing with the daily work, decision-making process, opportunities for professional growth, access to decisions, feedback on the part of the colleagues and management, time and material and human resources to develop the work and relationships with the teammates and management.

The interviews were carried out individually, in the participants' workplace, recorded on an electronic audio device and lasted a mean of 23 minutes. Sampling closure was determined by theoretical data saturation⁸.

For data analysis, the Content Analysis method was used⁹. Concomitant collection of quantitative and qualitative data occurred in two phases, as illustrated in Figure 1.

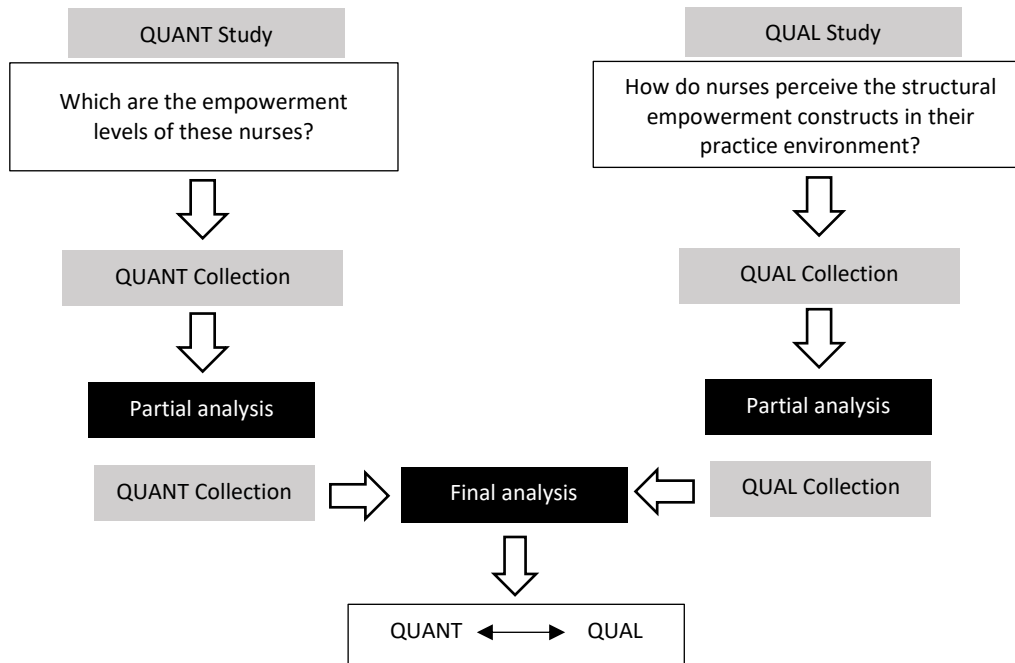


FIGURE 1: Research development structure. Santa Maria, RS, Brazil, 2020.

The qualitative and quantitative data were combined by integration to determine convergences, differences and combinations. All the ethical aspects were observed while conducting this study. The research was approved by the Research Ethics Committee of the proposing institution. The participants were informed about the research and signed the Free and Informed Consent Form.

RESULTS

The age of the participants in the quantitative stage varied from 25 to 54 years old, with a median of 37 years old. Of the 21 nurses, 15 (71.4%) were female. As for Professional training, 15 (71.4%) had a Specialist degree, and 3 (14.2%) had only an undergraduate and master's degree, respectively. Regarding the work shift, the participants were distributed between the morning and afternoon shifts, 3 (14.2%) simultaneously, 8 (38.0%) in the night shift and 7 (33.3%) working in mixed shifts. As for employment contracts, 71.4% were governed by the Consolidation of Labor Laws (*Consolidação das Leis Trabalhistas*, CLT) and 28.5% by the Single Legal Regime (*Regime Jurídico Único*, RJU). The participants have a mean of 10 years (SD±4.8) of experience as nurses. On the other hand, the mean working time in the sector was 4 years (SD±2.1).

The data related to the sum of the total mean values of each construct of CWEQ-II are presented in Table 1.

TABLE 1: Conditions of Work Effectiveness, CWEQ-II, according to each construct. Santa Maria, RS, Brazil, 2018.

Construct	Mean	Minimum	Maximum	SD*
Opportunity	4.54	2.67	5.00	0.6
Information	2.54	1.00	5.00	1.0
Support	2.58	1.00	5.00	1.1
Resources	2.82	1.00	4.67	0.8
Formal Power	2.56	4.67	1.00	1.0
Informal Power	3.12	4.67	1.33	0.9

*SD - Standard Deviation.

Source: Research data, 2020.

The total mean of CWEQ-II, which corresponds to the sum of the mean values of each component of structural empowerment, was 18.1 ± 0.9 , resulting in a moderate level of structural empowerment of the nurses participating in the study.

Regarding the qualitative stage, of the 14 nurses who participated, ten are female, aged between 28 and 49 years old. In addition, 12 had some specialization and, among these, only four were specialized in Urgency and Emergency.

The qualitative results allowed elaborating a thematic category entitled "Perception of access to the organizational structures of structural empowerment".

With regard to access to opportunity, respondent E1 reports the opportunity to participate in a project at the unit, given her experience and knowledge in the urgency and emergency field.

Look, this week my leader even called me to help her in a project that will be the implementation of the risk classification here in the ER [Emergency Room]. So, she knows that I did the urgency and emergency residency and attended the Manchester Protocol course as well, and also classification and risk auditing. (E1)

However, there is insufficient access to the opportunity structure, pointing out the need for training specifically aimed at the urgency and emergency area:

[...] I think that we need to have some more specific training sessions in the emergency room: care for stroke [cerebrovascular accident], care for [cardiorespiratory] arrest, in relation to urgency and emergency itself. (E11)

E3 reports not having knowledge about the organization's policies due to the fact that she is not able to participate in meetings or to work during the night period, thus not having any link with the leaders.

I'm pretty lost in this part of policies, because at night we don't have any link with the leaders, with the management. I haven't attended the meetings because I never can. I'm a little away from that part. I do my job, fulfill the hours I have and duties, then I'm out. (E3)

With regard to access to the material resources, some nurses show certain limitation, as the institution does not have some specific pieces of equipment:

The material resources are limited. We often work with what we have, but this is not a matter of [institution name], it's a matter of the network, the SUS network. (E9)

Also regarding access to the material resources, the following statement shows that the quality of the material available represents an obstacle to providing quality care.

You'll have a bad quality tube, you know that your patient will come back to pass it on. If you have a bad quality cannula, you'll bite the patient, the cannula will come and go, you'll miss everything that is accessed until you get a good one. You'll get a final result, but there can be damage in the middle. (E9)

Interviewee E11 relates lack of time, given the number of complications during the shift.

You don't always have time to do everything you have to do. Sometimes you have to pass continuity on to your peers, unfortunately. 'Oh, there was such thing, there was a complication'. When the shift doesn't cause much complication, you manage to have that care routine [...] but, if there's a complication, or two in the shift, they already disrupt everything and there will be something to do, for sure. (E11)

Regarding to access to the human resources, the need for more professionals to cope with the high work demand was highlighted.

Human resources, I think we work well at the limit! And when there's no employee, you can't always manage to put someone in, you have to make do with what you have [...] So, I find this more complicated, because if you have two employees, or four, you have to handle that number of patients. (E11)

According to nurse E7, the night shift is impaired regarding the reduction in the number of employees in different areas.

What makes it difficult is the stretcher trucks to transport patients at night, a satellite pharmacy in here so that we don't go to the pharmacy all the time, traveling from the service point. And, mainly, I think that a nutrition service is missing at night, which is not available in the institution, not only in the emergency room, but also after 10 p.m. in any unit. So, these things I think hinder the Nursing service very much. (E7)

Access to managerial support regarding problem solving is positively perceived by participant E4:

There is feedback, I just get in touch with the management and they'll always help me, it's always been like that, what I can solve by myself I do and what I can't I get in touch and I've always had feedback. (E4)

On the other hand, the extract below shows another perspective, as the nurses report receiving limited feedback from the management and, when they do, it is usually in a negative way.

It's more towards negative, if there is, like: do something they don't agree with, and they call you, they reprimand you. Positive, no. It's very difficult for you to have positive feedback about a decision you made, something to improve the unit. (E3)

As for the perception of the existence of formal power among the nurses, with regard to exercising autonomy in decision-making, they report that experience contributes positively to the decision-making process.

I have certain ease, because I'm very flexible, so it's already been 22 years [of experience]. [...] My colleagues agree when I say 'let's do this', but maybe they do so because I'm old, because I have experience. (E6)

The nurses reported being able to carry out decision-making more focused on care procedures and, generally, in a shared way, through dialog and discussion of situations with the health team.

The decision process for me is very smooth because, to start with, I'm not afraid to make a decision because as we're always studying and it's always guided by protocols, when you have to make a decision together with the team, when they put you as nurse, I consider that I can hold myself accountable, I can discuss with the team, with the medical team as well, for me it's no problem to talk to whoever I have to talk to make the decision. (E2)

On the other hand, some of the nurses assert that the power for decision-making is centralized in the management:

Nobody consults me at any time and, in most cases, my opinion doesn't count, it's not valued [...], maybe decision-making is a bit from the top down. (E6)

With regard to the informal power, respondent E8 states having a positive and respectful relationship with the Nursing team, seeking to maintain a leader stance:

I try to get along with everyone. I'm not the boss, I try to be a team leader, I never tell anyone to do anything, I never needed to, people respect me [...] I consider my relationship to be good, very good with the team. (E8)

However, interviewee E5 mentions certain difficulty maintaining efficient communication among the team professionals:

Overall it's good, but having to 'bite my lips' many times. Actually, what is lacking nowadays is communication and non-aggressive communication, because sometimes people arrive throwing things without thinking, so it ends up generating conflict. Sometimes, because of this type of things, communication noise, people thought they heard or understood something and then there was conflict and, sometimes, it's not even that. (E5)

Figure 2 presents the synthesis of the results and interpretation, based on the articulation between the quantitative and qualitative findings.

CET-II dimensions	Mean/ Level	Interpretation of the qualitative findings
Opportunity	4.54	<ul style="list-style-type: none"> ✓ Insufficient access to learning opportunities and professional growth through courses aimed at the urgency and emergency area ✓ Existence of opportunities to participate in projects at the unit
Informal Power	3.12	<ul style="list-style-type: none"> ✓ Nurses maintain a good relationship with the health team ✓ Difficulties in communication
Resources	2.82	<ul style="list-style-type: none"> ✓ Insufficient access to material, human and time resources
Support	2.58	<ul style="list-style-type: none"> ✓ Insufficient access to support linked to absence of feedback related to recognition and appreciation for the work performed. ✓ Access to support, with regard to the guidelines offered by the leader in situations considered more complex
Formal Power	2.56	<ul style="list-style-type: none"> ✓ Insufficient access to formal power, with regard to decision-making focused on management, in which this takes place in a vertical and hierarchical manner. ✓ Decision-making focused on direct care to the user and issues related to the unit's routine
Information	2.54	<ul style="list-style-type: none"> ✓ Lack of access to information about the institution's decisions, policies and goals through meetings, as well as low number of professionals specialized in urgency and emergency
Sum of the mean values for all components	18.16 Moderate Level	<ul style="list-style-type: none"> ✓ Nurses have moderate access to opportunities; informal power; resources; support; formal power and information in the workplace

FIGURE 2: Synthesis of the results and interpretation, based on the articulation between the quantitative and qualitative findings. Santa Maria, RS, Brazil, 2020.

DISCUSSION

As for the total mean value of CET-II, the nurses showed a moderate level of structural empowerment. The highest mean was obtained in the Opportunity construct, followed by the Informal Power and Resources dimensions; while the Support, Formal Power and Information scores were the lowest.

These results show that professional nurses partially have conditions for structural empowerment. From this perspective, it is worth returning to Kanter's theory, stating that places where the professional has access to certain empowerment structures automatically have professionals with scientific knowledge, trained, experienced and committed, which contributes good results for the institution, as well as to the patient⁴. The qualitative results allowed inferring why access to opportunity is moderate for the nurses researched.

On the other hand, a study carried out at a university hospital in Belgium concluded that nurses have training opportunities, the same occurred through education programs, workshops on specific topics and practical training based on scientific evidence as an initiative to promote structural empowerment¹⁰.

As for informal power, both the qualitative and the quantitative results showed that nurses are able to establish a network of alliances with the team of professionals active in the work environment, as well as with the management. This makes the professional look for strengthening and visibility within the work context. These results are similar to a study carried out in Portugal in which the Informal Power construct, together with Opportunity, have obtained the best ratings¹¹.

With regard to access to resources, although the quantitative data indicate that it is the third construct with the highest mean value, the qualitative results show that nurses perceive insufficient access, highlighting the need to purchase good quality materials and equipment. They also manifest limited access to the time resource to develop good quality work, due to the high number of patients, high complexity of cases and growing demand for activities, as well as a large number of complications. The authors assert that, without access to material and infrastructure resources, good quality work is hindered, imposing limitations on the nurses¹¹.

When there is insufficient time to complete all the tasks in the work shift, nurses feel the need to prioritize performance of some activities over others. Not being able to perform all the work generates frustration and affects performance of the tasks, so that, due to the time limitations, there is a need to perform them quickly, which can compromise the quality of the offered service. An international research study carried out with nurses revealed that access to the resources was the construct with the lowest score¹². It is noteworthy that certain resource limitations challenge hospitals to improve their performance quality and increase safety and efficiency in patient care¹².

With regard to the support construct, the quantitative and qualitative data complemented each other. The numbers indicate moderate support from colleagues and supervisors within the work environment, as well as problem solving and work-related improvements. In the qualitative analysis, potentialities and limitations in relation to this construct were perceived.

The nurses point out access to support provided by the sector's leader, with regard to guidelines in more complex situations. However, they perceive absence of feedback related to recognition and appreciation for the work performed. Consequently, this evidences the need for the administration to provide greater organizational support, as this serves as an important stimulus for the nurses' practice, favoring their professional satisfaction¹³.

Formal power, on the other hand, is related to the specific characteristics of the work environment. It is worth mentioning that, within an organization, power results from formal precepts (activities that allow achieving the organizational objectives) and informal precepts (derived from the interpersonal relationships) that allow access to structures that promote empowerment¹⁴. In this construct, part of the qualitative results corroborate the quantitative findings since, with regard to broader decisions linked to the management, the nurses perceive limited access to power, showing that decision-making is centralized in the unit's management. Therefore, there is a need to expand the opportunity for the professionals to participate in decision-making.

The information construct presented the lowest mean when compared to the others. The qualitative results reinforced this numerical result, evidencing insufficient access to information regarding the institution. Thus, the participants manifest the need to hold frequent meetings in order to share the organizational decisions, policies and goals.

It is believed that an organization depends not only on technologies or material resources, but also on competitive, energetic and engaged employees, willing to share their knowledge, skills and experience. The organizations must not only recruit talents, but also inspire them and create the conditions for professional growth^{15,16}.

Thus, the creation of organizational environments in which nurses feel empowered provides these professionals with feelings of satisfaction and organizational commitment, making them feel able to perform their functions efficiently, reinforcing the idea of staying in their current jobs. Nursing administrators and leaders and those leading organizations must ensure nurses' empowerment in order to improve patient care quality in the hospitals¹⁷.

Study limitations

The limitation of this study is related to the fact that it was developed in a single health service, precluding generalizations to nurses in institutions similar to the setting under study. It is considered pertinent to conduct future research studies, as well as the involvement of a greater number of public and/or private institutions from different Brazilian states.

CONCLUSION

The quantitative data resulted in a moderate level of structural empowerment in the nurses participating in the study. Access to opportunity was the construct that presented the highest value, showing that nurses have opportunities within the work environment. In the qualitative data, the informal power construct was positive in the nurses' structural empowerment. The opportunity, information, resources, support and formal power dimensions were perceived as insufficient and, therefore, exerted negative influences on nurses' empowerment. From the integration between the results, it was concluded that structural empowerment in the nurses' work environment allows for professional development and performance within the work environment.

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