

Preliminary study about quality of life of physicians and nurses working in pediatric and neonatal intensive care units*

ESTUDO PRELIMINAR SOBRE A QUALIDADE DE VIDA DE MÉDICOS E ENFERMEIROS INTENSIVISTAS PEDIÁTRICOS E NEONATAIS

ESTUDIO PRELIMINAR SOBRE LA CALIDAD DE VIDA DE MÉDICOS Y ENFERMEROS INTENSIVISTAS PEDIÁTRICOS Y NEONATALES

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ABSTRACT

Compare the Quality of Life (QL) of doctors and nurses who work in Pediatric (PED) and Neonatal (NEO) Intensive Care Units, and to evaluate whether there are differences between the QL in the same job category, but differing according to the work unit. This descriptive study was performed with 37 physicians and 20 nurses. The WHOQOL100 was used. Physicians from the PED differ statistically in the field VI ($p=0.003$) compared with physicians from the NEO. Physicians and nurses from the PED showed a statistically significant difference in field V ($p<0.01$), while physicians and nurses from the NEO showed a statistically significant difference in field VI ($p=0.05$). The QL assessment of physicians and nurses working in pediatric and neonatal intensive care units was below the scores found in scientific literature, compared to studies that evaluated patients with chronic pain and mental health disorders, indicating the occurrence of occupational stress.

KEY WORDS

Intensive care.
Quality of life.
Physicians.
Nurses.
Nurses, male.
Occupational health.

RESUMO

Comparar a Qualidade de Vida (QV) de médicos e enfermeiros que trabalham em UTI Pediátrica (PED) e Neonatal (NEO) e, também, avaliar se há diferença entre a QV na mesma categoria profissional, mas diferindo de acordo com a unidade de trabalho. Estudo descritivo com 37 médicos e 20 enfermeiros. O WHOQOL-100 foi utilizado. Médicos da PED diferiram estatisticamente no domínio VI ($p=0,003$), quando comparados com médicos da NEO. Médicos e enfermeiros da PED apresentaram diferença estatística significativa no domínio V ($p < 0,01$), e médicos e enfermeiros da NEO apresentaram diferença estatística significativa no domínio VI ($p=0,05$). A avaliação da QV de médicos e enfermeiros intensivistas pediátricos e neonatais mostrou-se abaixo dos escores encontrados na literatura científica, quando comparados com estudos que avaliaram pacientes com dores crônicas e com prejuízos na saúde mental, evidenciando a ocorrência de estresse ocupacional.

DESCRIPTORES

Cuidados intensivos.
Qualidade de vida.
Médicos.
Enfermeiras.
Enfermeiros.
Saúde do trabalhador.

RESUMEN

Comparar la Calidad de Vida (QV) de médicos y enfermeros que trabajan en UTI Pediátrica (PED) y neonatal (NEO) y, también evaluar si existe diferencia entre la QV en la misma categoría profesional, aunque variando de acuerdo con la unidad de trabajo. Estudio descriptivo con 37 médicos y 20 enfermeros. Fue utilizado el WHOQOL-100. Los médicos de PED diferían estadísticamente en el dominio VI ($p=0,003$) en comparación con los médicos de NEO. Médicos y enfermeros de PED presentaron una diferencia estadística significativa en el dominio V ($p<0,01$) y médicos y enfermeros de NEO presentaron diferencias estadísticas significativas en el dominio VI ($p=0,05$). La evaluación de la QV de médicos y enfermeros intensivistas pediátricos y neonatales se mostró por debajo de los puntajes observados en la literatura científica, al ser comparados con estudios que evaluaron pacientes con dolores crónicos y con problemas de salud mental, evidenciando la existencia de estrés ocupacional.

DESCRIPTORES

Cuidados intensivos.
Calidad de vida.
Médicos.
Enfermeras.
Enfermeros.
Salud laboral.

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INTRODUCTION

Quality of life has been the object of studies in several fields, especially in studies addressing work conditions⁽¹⁻⁴⁾. It is through work that human beings interact in productive society, that is, work is an integrating and essential part of life. Hence, we can say that work has a key role in human life and depending on the way it is performed, it can generate extenuating factors and potentiate disease processes.

In this context, we found physicians and nurses whose work in Intensive Care Units (ICU) is characterized by activities of high interdependency and decision-making in complex interventions to provide patients emergency care. In this group we highlight intensivist pediatric and neonatal professionals, whose practice is with patients at a very early age, which turns their work complex given the requirements of this clientele.

Recent studies stress that these professionals have endured an increasingly strenuous workload, compromising their quality of life⁽⁵⁻⁹⁾. These studies show the repercussions of organizational factors on the mental and physical health of physicians and nurses who work in pediatric and neonatal ICUs such as: burnout, psychological disorders generating professional stress, changing cortisol levels and salivary amylase due to excessive noise, relationship difficulties within the team, patients and family members. It is worth noting that two recent national studies⁽¹⁰⁻¹¹⁾ that evaluated intensivist nurses and physicians showed that occupational stress led to dissatisfaction with work, affected physical health, mobilized feelings of suffering originating from relationships with patients and family members, team work, turnover, absenteeism and the high technology present in these units, in addition to the prevalence of burnout in physicians.

In line with the preceding discussion, this study aims to further investigate the issue in question.

OBJECTIVE

This study compares the quality of life of physicians and nurses working in the same unit (pediatric or neonatal) and also evaluates whether there are any differences among physicians working in pediatric and neonatal units and among nurses working in pediatric and neonatal units.

METHOD

This descriptive study included physicians and nurses working in pediatric (35) and neonatal (22) ICUs at the Federal University of São Paulo/*Escola Paulista de Medicina* (UNIFESP/EPM). A total of 25 physicians and ten nurses from the pediatric ICU and 12 physicians and ten nurses from the neonatal ICU, totaling a 57 professionals who consented to participate in the study, were evaluated. The following inclusion criteria were considered: being a physician or nurse hired

to work in the ICU or physician resident in supervised training in the ICU. The Project was approved by the Research Ethics Committee at UNIFESP/EPM (nº 1604/04) and all the participants signed a free and informed consent form.

The validated Brazilian version of the WHOQOL-100⁽¹²⁾ was used to evaluate quality of life. This instrument is composed of 100 questions that encompass six domains: physical (I); psychological (II); level of interdependence (III); social relationships (IV); environment (V); and spirituality/religion/personal beliefs (VI). These domains are divided into 24 facets and each facet is composed of four questions.

The WHOQOL-100 answers are classified using a Likert scale. The questions are answered through four types of scales: intensity (not at all-extremely), ability (not at all-completely), frequency (never-always), and assessment (very dissatisfied, very satisfied, very poor, very good). The score for each domain can be transformed into a scale that varies from 0 to 100, where zero is the worst and 100 the best result⁽¹³⁾.

The Mann-Whitney U test was used to compare professionals between units (pediatric and neonatal ICUs) and professionals by categories (physicians and nurses).

RESULTS

The physicians were predominantly female (76%) with an average age of 34.70 ± 7.11 years and worked in the ICU for an average of 7.17 ± 6.89 years. Nurses were predominantly female (95%), with an average age of 31.55 ± 6.37 years old and worked in the ICU for an average of 5.85 ± 4.40 years.

There was a sample loss of 50% given that completed instruments were not returned (Table 1).

Table 1 - Number of professionals in ICUs invited to participated in the study - São Paulo, Brazil - 2006

	Physicians		Nurses	
	Accepted	Did not accept	Accepted	Did not accept
Pediatric ICU	25	26	10	1
Neonatal ICU	12	28	10	4
Total	37	54	20	4

Table 2 present medians of quality of life of the four studied groups. Physicians in the pediatric ICU presented a higher score when compared to physicians in the neonatal ICU in the following domains: spirituality/religion/personal beliefs with statically significant difference (16.0 and 14.5 $p < 0.01$), social relationship (15.3 and 15.0), environment (13.9 and 12.6), and psychological (14.6 and 14.1), with no statistically significant difference. Higher scores in the remaining domains were found among physicians in the neonatal ICU though with no statistically significant difference: physical (14.2 and 13.3) and level of independence (17.1 and 16.0) (Table 2).

Table 2 - Descriptive levels of comparisons between pediatric and neonatal ICUs in the same professional category (physicians or nurses) and between different professional categories (physicians and nurses) - São Paulo, Brazil - 2006

WHOQOL-100 DOMAINS	Physicians			Nurses			Physician vs. Nurse	
	PED	NEO	p	PED	NEO	p	PED (p)	NEO (p)
Physical	13.3	14.2	0.96	12.8	13.8	0.68	0.46	0.76
Psychological	14.6	14.1	0.25	14.2	14.5	0.88	0.26	0.32
Level of Interdependence	16.0	17.1	0.98	16.2	15.7	0.79	0.86	0.76
Social Relationships	15.3	15.0	0.61	14.8	15.8	0.51	0.44	0.52
Environment	13.9	12.6	0.39	12.7	13.4	0.19	0.009	0.96
Spirituality/religion/personal beliefs	16.0	14.5	0.003	16.0	16.5	0.90	0.74	0.05

PED = pediatric ICU; NEO = neonatal ICU

In relation to nurses, higher scores were found in the neonatal ICU when compared to nurses in the pediatric ICU in the following domains: physical (13.8 and 12.8), psychological (14.5 and 14.2), social relationships (15.8 and 14.8), environment (13.4 and 12.7) and spirituality/religion/personal beliefs (16.5 and 16.0). No statistical difference was found (Table 2).

A statistically significant difference was found in the domain environment ($p < 0.01$) when physicians and nurses working in the pediatric ICU were compared. A statistically significant difference was found in the domain spirituality/religion/personal beliefs ($p < 0.05$) in the comparison between physicians and nurses in the neonatal ICU (Table 2).

DISCUSSION

The evaluation of quality of life has been a topic of recent studies in Brazil and nurses have been the professionals most investigated⁽¹⁻⁵⁾. One study⁽¹⁾ carried out with nurses from a neonatal ICU used the Flanagan Quality of Life Scale and, contrary to our study, obtained good levels of quality of life among this population.

Other scholars^(2,14) have evaluated quality of life of nursing residents and nurses from the surgical center and aspects related to quality of life were revealed to be compromised in the SF-36 in the following domains: emotional, social and physical aspects, vitality and mental health. We observed in our study that the domains physical, psychological, level of interdependency and social relationships presented scores below those expected for the WHOQOL-100⁽¹²⁻¹³⁾, which was also verified in another study⁽⁴⁾ that used the WHOQOL-BREF with intensivists nurses. By contrast, a study⁽³⁾ using the WHOQOL-BREF with nursing auxiliaries working in an ICU during the night shift did not find alterations in quality of life⁽³⁾.

The results of another study⁽¹⁵⁾ carried out with Chilean nurses using WHOQOL-BREF indicate that the social relationship domain was perceived better by these nurses while the physical domain was perceived as the worst. Global quality of life was considered *good* and quality of life in health was perceived as *within standards*, which differ from the results obtained in this study.

The scores obtained in this study using the WHOQOL-100 were lower or similar to those found in other studies that evaluated quality of life in different sample groups, e.g. the first domain that includes physical state, which focuses on pain and discomfort, satisfaction with sleep, ability to work, among others. We observe that the values obtained by the evaluated professionals are lower when compared to elderly individuals and their caregivers⁽¹⁶⁻¹⁷⁾.

In the psychological domain, which evaluates whether the interviewee is satisfied with himself/herself and with his/her appearance or the frequency of negative feelings, the studied sample presented values lower than those obtained with schizophrenic patients⁽¹⁸⁾.

Our results are similar to those of another study⁽¹⁹⁾ that evaluated quality of life of patients with chronic back pain in the following domains: level of interdependency, social relationships, environment and spiritual/religion/personal beliefs, including those previously mentioned.

It is worth highlighting that statistically significant differences were found in the domain spirituality/religion/personal beliefs when scores of pediatric ICU physicians are compared to those of neonatal ICU physicians, and scores of physicians in the neonatal ICU and nurses from the same unit are compared. These statistical differences found in the respective groups might reflect on the work of professionals working in the studied units. As has been stressed in scientific literature addressing the concept of religious/spiritual coping⁽²⁰⁾, one might be able to better deal with daily stress. Despite lack of general consensus concerning the concepts of quality of life and spirituality, scientific literature has demonstrated the clear existence of this relationship that improves quality of life in general⁽²¹⁾.

It was apparent that the quality of life of physicians and nurses working in pediatric and neonatal intensive care, evaluated by the WHOQOL-100, is compromised in all dimensions (physical, psychological, level of interdependency, environment, social relationships and spirituality/religion/personal beliefs) compared to scores found in other studies and considering minimum (worst) and maximum (best) values between 0-100, respectively⁽¹²⁻¹³⁾.

STUDY'S LIMITATIONS

This descriptive study with frequency computation was carried out in a single facility with a small sample. Half of the sample did not complete the instrument, which might have compromised the results.

FINAL CONSIDERATIONS

The quality of life of intensivists pediatric and neonatal physicians and nurses evaluated by the WHOQOL-100 is compromised when compared to scores obtained by nurses, elderly

individuals and their caregivers, and also compared with patients with chronic pain and those with impaired mental health as described in other scientific studies. This study's findings suggest that the quality of life of the studied population is compromised, indicating occupational stress.

Despite the limited number of participants, the investigation of quality of life of pediatric and neonatal intensivist physicians and nurses is a current and important issue. We hold that the quality of life field can become a mediator between the areas of health and labor, facilitating the development of interventions that promote organizational well being.

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