



Original Article

The Quality of Working Life among Nurses in Pediatric Setting in Spain: A pilot study

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ABSTRACT

Introduction: The health professional's occupational health can affect both the quality of the care provided and the degree of training and the therapeutic techniques available. In case of nurses, they usually are exposed to situations that affect their Quality of Working Life (QoWL). The aim was to measure the quality of working life among nurses in pediatric departments and its factors associated.

Methods: A cross-sectional pilot study conducted in nurses of Pediatric departments in public hospitals in Andalusian (Spain). Participants (n=62) completed the biographical questionnaire and the validated 23-item Work-Related Quality of Life scale (WRQoL). A descriptive and multiple regression analysis were carried out.

Results: The average QoWL of pediatric nurses was of 78.13 ± 19.89 according to WRQoL scale. In relation to factors associated to QoWL, the analyses showed that having a master – maximum educational level, having pediatric nursing specialty, being married or having a civil partner and having labor flexibility for the reconciliation of work and private life increased total WRQoL score except having pediatric nursing specialty which decreased it.

Conclusion: Although the total WRQoL is average, more efforts should be made to increase the total WRQoL among pediatric nurses and to ask about other aspects in which to work to maintain a high QoWL.

Keywords: Quality of Working Life, Pediatric Nurse, Occupational health.

Article history

Received: 3-March-2020

Revised: 5- June-2020

Accepted: 20-Sep-2020

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Vega-Escañó J, Nave F, Vargas-Martínez AM, De Diego-Cordero R. The Quality of Working Life among Nurses in Pediatric Setting in Spain: A pilot study. *Eur J Occ Health Nurs*. 2020. 1: 35-47

Introduction

Nurses are the largest single employee component of hospitals and they are vulnerable to stress and exhaustion and there is no adequate support for them (1). Stressful events (situations) can put the person at risk of developing physical or even psychological problems (2). In recent years, pathologies such as Burnout Syndrome have acquired special relevance, due to the serious repercussions that it produces both labor and personal. In general, health professionals daily must to provide complex care and treatment to patients and being stressors factors that posing the risk of occupational burnout (3). In the case of nurses, a recent meta-analysis showed that global prevalence of burnout symptoms among nurses was 11.23% (4). This is especially important in nurses of pediatric services, since it can lead to a deterioration in the care provided to children and it has been suggested that patients treated by staff affected by the syndrome have a less favorable clinical course and are dissatisfied with the quality of care received.

"Quality of working life" (QoWL) is a broad concept that is affected by factors such as stress and job satisfaction, which change depending on the cultural context (5). Definitions of this concept begin to emerge in the 1960s after which many attempts at definition have been made, based on various combinations of factors and distinguishing between organizations and groups of employees. The evidence have showed the influence of a multitude of factors among which are equal employment opportunities, ambiguity in the role of work, job design and job security among others (6–8). But given the influence of sociocultural factors, there is no consensus about whether the key aspects of the QoWL of an individual. Hence, it is very important to know the conceptual components of the concept of QoWL and their differentiate from the concept job satisfaction among nurses (9).

Currently, in the specific field of health, many researchers have proposed models for the quality of work life among health professionals, especially nurses, which include a wide range of factors that affect the quality of work life. Several scales based on different factors as appropriate for various cultures and groups and sectors of work have been proposed. Among them, the Work - related Quality of Life (WRQoL) scale initially based on samples from the United Kingdom, has subsequently been used in more than 30 countries and is a measure designed to capture perceptions of the working environment and employees' responses to them.

Henceforth, the aim was to measure the quality of working life and its factors associated among nurses in pediatric departments in Spanish Hospitals.

Methods

Design

A quantitative cross-sectional pilot study approaches to assess the QoWL of nurses working in pediatric departments, using WRQoL Scale.

Setting and sample

The study is conducted in Andalusian, Spain. Data were collected over 6 months in 2019. A purposive sample was carried out which involved all nurses who are working in pediatric departments of Andalusian public hospitals. It was not limited for age, sex or any criteria. The literature recommends a sample of between 30 and 50 participants for a pilot study, which must meet the criteria to be measured in the target population (10). The total nurses involved was 62 nurses.

Variables

The following variables were considered. Sociodemographic and professional variables: age, sex (male; female), maximum educational level (PhD; Master; Degree), years of experience as a nurse, years of experience in a pediatric department, lost work days due to a health problem, pediatric nursing specialty, marital status (married or civil partner; divorced; single) and labor flexibility for the reconciliation of work and private life (Table 1).

Instrument

The WRQoL scale consists of 23 items, which are measured through a 5-point Likert scale (from 1 = "strongly disagree" to 5 = "strongly agree") and six subscales that measure work-related quality of life. The subscale "job and career satisfaction" (JCS) consists of six items (1, 3, 8, 11, 18, and 20). The subscale "general wellbeing" (GWB) also has six items (4, 9, 10, 15, 17, and 21). The subscale "homework interface" (HWI) consists of three items (5, 6, and 14). The subscale "stress at work" (SAW) consists of two items (7 and 19). The subscale "control at work" (CAW) consists of three items (2, 12, and 23) related to be involved

in decisions at work. The final subscale is “working conditions” (WCS) and consists of three items (13, 16, and 22) (Easton & Van Laar, 2018). Three negative items (7, 9, and 19) are in reversed coding before the calculation of the WRQoL subscale scores. The total WRQoL score is calculated by taking the mean of the six subscale scores. Higher WRQoL scores indicate a higher work-related quality of life. Higher overall score on this scale indicates better QoWL. The validity and reliability of the Spanish version of the WRQoL was showed by Edwards, Van Laar, Easton y Kinman (2009). This study pointed to a Cronbach's alpha of 0.94, for the 23 elements. Later, Van Laar and Easton (2010) considered a further revalidation exercise in which the staff of nine universities in the United Kingdom were involved. From this investigation, a Cronbach's alpha of 0.94 was indicated (11).

Statistical analysis

Demographic characteristics of nurses were calculated as the mean \pm standard deviation, or n (%) of the total. Normal distribution of the total WRQoL score and its subscales were tested using the Shapiro Wilk normality test. Relationships between the different variables studied and WRQoL subscale scores were analyzed using a Spearman correlation analysis, T de Student and ANOVA depend on type of variable due to the non-normal distribution. The effect of different covariates (age, sex, marital status, maximum educational level, years of experience as a nurse, years of experience in a pediatric department, lost work days due to a health problem, Pediatric Nursing Specialty and labor flexibility for the reconciliation of work and private life) on overall WRQoL score were investigated using multiple linear regression analysis. Some variables were centered using median, such as age and years of experience as a nurse, due to value 0 was not included in these variables for sample studied. Statistical analyses were done using R version 3.6.2 statistical software. A p value < 0.05 was accepted as statistically significant.

Ethical aspects

The Biomedical Research Ethics Committee of Andalusia approved this research. Written consent was required for all participants. Confidentiality and anonymity were guaranteed.

Results

A total of 62 nurses working in pediatric departments responded to the questionnaire. The mean age was 36.23 ± 9.59 years. Of the 62 nurses, more than half (80.65%) were women, 51.61% were married, the Master level was reached by 46.77% and only 8.06% were PhD. In relation to training in pediatric nursing specialty, 63.93% of nurses had this academic degree. The mean of years of experience as a nurse and in a pediatric department were 12.89 ± 8.45 and 7.30 ± 7.55 , respectively.

Table 1. Demographics characteristics of the nurses (n=62)

Variable	Mean \pm SD or n (%)
Age (years)	36.23 \pm 9.59
Sex	
Woman	50 (80.65)
Man	12 (19.35)
Maximum educational level	
PhD	5 (8.06)
Master	29 (46.77)
Degree	28 (45.16)
Years of experience as a nurse	12.89 \pm 8.45
Years of experience in a pediatric department	7.30 \pm 7.55
Lost work days due to a health problem	9.06 \pm 48.55
WRQoL score	78.13 \pm 19.89
Pediatric Nursing Specialty	39 (63.93)
Marital status	
Married or civil partner	32 (51.61)
Divorced	2 (3.23)
Single	28 (45.16)
Labor flexibility for the reconciliation of work and private life (yes)	40 (64.52)

The mean WRQoL score was 78.13 ± 19.89 . Correlations coefficients between total WRQoL score and its subscales and the different demographics and covariates studied are given in Table 2 and 3.

Table 2. Spearman correlation coefficients (r) and statistical significance (p) levels between the different covariates studied and Work-Related Quality of Life (WRQoL) subscales

	WRQoL subscales						Overall WRQoL score
	JCS ^a	GWB ^b	HWI ^c	SAW ^d	CAW ^e	WCS ^f	
Age (years)	0.182	0.100	0.093	0.060	0.244	0.133	0.178
Years of experience as a nurse	0.149	0.032	0.042	-0.010	0.233	0.062	0.119
Years of experience in a pediatric department	0.143	0.142	0.029	0.105	0.327**	0.197	0.189
Lost work days due to a health problem	-	-	-	-	-0.209	-	-
	0.266**	0.340**	0.296**	0.437***		0.366**	0.336**

Note: *p<0.05; **p<0.01; ***p<0.001

^aJCS: "job and career satisfaction"; ^bGWB: "general wellbeing"; ^cHWI: "homework interface"; ^dSAW: "stress at work"; ^eCAW: "control at work"; ^fWCS: "working conditions"

Table 3. The relation between demographics variables with WRQoL score and its subscales

		WRQoL subscales						Overall WRQoL score
		JCS ^a	GWB ^b	HWI ^c	SAW ^d	CAW ^e	WCS ^f	
Sex	p	0.262	0.757	0.440	0.443	0.577	0.551	0.425
Marital status	p	0.015*	0.018*	0.033*	0.086	0.002*	0.0442*	0.005**
Maximum educational level	p	0.017*	0.008*	0.19	0.143	0.006*	0.000**	0.005**
Labor flexibility for the reconciliation of work and private life	p	0.000**	0.001*	0.000**	0.020	0.020*	0.000**	0.000**
Pediatric Nursing Specialty	p	0.090	0.100	0.182	0.640	0.837	0.624	0.185

Notes: *p<0.05; **p<0.01;***p<0.001

^aJCS: "job and career satisfaction"; ^bGWB: "general wellbeing"; ^cHWI: "homework interface"; ^dSAW: "stress at work"; ^eCAW: "control at work"; ^fWCS: "working conditions"

The total WRQoL score was significantly and negatively correlated with lost work days due to a health problem ($r = -0.336$; $p < 0.01$) and positively correlated with marital status ($p < 0.01$), maximum educational level ($p < 0.01$) and labor flexibility for the reconciliation of work and private life ($p < 0.001$). Considering the WRQoL subscales, years of experience in a pediatric department were significantly and positively correlated with the control at work, lost work days due to a health problem were significantly and negatively correlated with all subscales except with the control at work, which reflects reflects the level at which an employee feels they can exercise what they consider to be an appropriate level of control

within their work environment. Marital status was significantly and positively correlated with all subscales except with stress at work, maximum educational level was significantly and positively correlated with all subscales except with stress at work and homework interface, which is related to work-life balance and the extent to which an employer is perceived to support someone's home life, and finally, labor flexibility for the reconciliation of work and private life was significantly and positively correlated with all WRQoL subscales.

Among the variables that were entered into the multiple regression model, only four (master – maximum educational level, having pediatric nursing specialty, being married or having a civil partner and having labor flexibility for the reconciliation of work and private life) were found to be statistically significant in terms of total WRQoL score, increasing this score except having pediatric nursing specialty, which decreases total WRQoL (Table 4). This model explained 51.1% the Work-Related Quality of Life.

Discussion

Our study answered to aim finding that having a master – maximum educational level, having pediatric nursing specialty, being married or having a civil partner and having labor flexibility for the reconciliation of work and private life increased the total WRQoL score except having pediatric nursing specialty, which decreased it. These findings should be interpreted cautiously since the study is based on a non-representative sample of the population and, being a cross-sectional study, no causal relationships can be established.

Related to the association between having a higher educational level and QoWL, our findings showed that having a master or maximum educational level increases the QoWL among the participating nurses. Another studies showed that bachelor's degree (BS) and Research nursing (RNs) scored significantly higher in job satisfaction related to the opportunity for autonomy and growth, job stress and physical demands and job and organizational security (12). What's more, two of main characteristics of "magnet hospitals" identified by nurses were: "*working with other nurses who are clinically competent*" and "*support for education*" (13).

Table 4. Effect of risk factors on overall WRQoL score using a multiple linear regression model.

Covariates	Type of covariates	Standardized coefficients # (β)	t	p
Age (centered on 34 years)	Numeric	-0.954	-1.858	0.069
Sex (woman)	0: Man; 1:Woman	2.768	0.547	0.587
Maximum educational level (master)	0: Degree; 1: Master; 2: PhD	11.831	2.96	0.004**
Maximum educational level (PhD)		11.208	1.538	0.130
Years of experience as a nurse (centered on 12 years)	Numeric	0.780	1.291	0.202
Years of experience in a pediatric department	Numeric	0.244	0.549	0.585
Lost work days due to a health problem	Numeric	-0.019	-0.498	0.620
Pediatric Nursing Specialty (yes)	0: No; 1: Yes	-9.384	-2.278	0.027*
Marital status (divorced)	0: Single; 1: Divorced; 2: Married or civil partner	17.465	1.458	0.151
Marital status (Married or civil partner)		14.338	2.750	0.008**
Labor flexibility for the reconciliation of work and private life (yes)	0: No; 1: Yes	20.334	5.453	0.000***

Our findings showed that having pediatric nursing specialty decreased the QoWL. This is in contrast with another studies (14) where the most valid indicator of competence reported by nurses was BS or master's education and national specialty certification. In this intervention, education-master's prepared nurses reported the most favorable environments and clinical unit-medical and surgical specialty and outpatient units reported the healthiest work environments.

In our study, being married or having a civil partner associated with a higher QoWL. Another studies (15–20) have been carried out on the relationship between marital status and job satisfaction. Their findings showed the married group had higher rates of job satisfaction.

Finally, having labor flexibility for the reconciliation of work and private life associated with a higher WQoL. The findings of a study with 30,649 Korean workers showed that a poor work–life balance was associated with poor psychosocial well-being even after adjusting for work-related and individual characteristics (21). In Europe, flexible working time arrangements have become more widespread with actions such as part-time work, teleworking, term-time working, flexible daily start and night times, among others (22). However, related to legislation on working time only a few countries have legal provisions on time-credit schemes (23).

Concluding Remarks

Our findings showed the level of overall quality of working life among pediatric nurses which is average. Having high academic qualification, being married or having labor flexibility increased QoWL, but having pediatric nursing decreased it. It is needed to carry out intervention to know what the reason are because this question negatively influences among nursing pediatric and inquire about other aspects to work on that allow maintaining a high QoWL. In addition, it is needed to have occupational health programs to increase and improve the QoWL among nurses.

Conflict of interest. The authors declare no conflict of interest.

Funding. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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