Article

Quality of life at work for nurses in the 112 and 061 emergency healthcare systems in Spain.

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Received: 06/06/2016; Accepted: 08/09/2016; Published: 01/05/2017

Abstract:

Introduction

A high-quality professional life is associated with increased motivation and the ability to adapt to constant change.

Objective

To enhance our knowledge concerning the quality of professional life as perceived by nurses in the emergency healthcare systems in Spain.

Methods

The study population included 2,852 professionals, and we obtained 328 (11.5%) valid responses. The data indicate that 80% of respondents had been in their position for more than 10 years. The study used the specifically validated questionnaire CVP-35, which examines quality of life at work.

Results

The global quality of life score was approximately 6.76 points. The highest scoring item was "My work is important for the lives of other people" (9.12), and the lowest score was "Possibility of promotion" (3.76). The evaluation of the various dimensions was heterogeneous. The most significant correlations were found for 'management support' with 'intrinsic motivation' and for 'intrinsic motivation' with 'training'. The Spearman correlation coefficients were 0.521 and 0.439, respectively. There was a direct relationship between these score items.

Conclusions

Nurses' perception of the global quality of professional life tends to be good, and the best results are found for 'intrinsic motivation' and 'training'. The worst areas were related to the items "possibility of promotion" and "my company tries to improve the quality of life of my post".

Keywords: Nursing, quality, satisfaction, CVP-35, validated questionnaire.

1. Introduction

"Quality of life" is the set of conditions that contribute to making life agreeable and worth living [1].

"Quality of Professional Life" (QPL) implies there is a balance between the bio-physical, psychic, and social factors for each member of the staff in a work group [2].

The perception of work satisfaction is a measure of the quality of life at work and has become a valuable dimension in itself. Work satisfaction is an organizational objective because it is a guarantee of the human capital and has been shown to influence professional practices [3].

There have been several definitions used for quality of life at work in the last century [4, 5, 6] and all have a multidimensional view of this concept. The definition consists of both objective and subjective characteristics that influence whether the worker feels at peace with him/herself and her/his surroundings and can affect the quality of service given to society.

The factors associated with professional dissatisfaction include the following: little autonomy, a lack of professional recognition, extreme authority, low prospects of promotion and mundane tasks. There is a substantial risk of dissatisfaction at work and burnout syndrome among health professionals.

A high-quality professional life in the nursing field consists of a high level of motivation, the capacity to adapt to constant change, and the development of creativity and imagination. A favorable work climate is developed on the basis of trust, respect, and companionship. These factors create a climate that allows the worker to evolve and grow as a person.

The quality of life for health professionals in nursing and medicine is a permanent preoccupation because it affects both their professional and personal lives [7]. The quality of life also impacts the service they provide for the community due to their proximity and permanent interaction with the community.

There were more than 7 million health demands throughout Spain in 2012, which were addressed by professionals in charge of health services [8].

There are currently approximately 17,300 health professionals in Spain who work for the 'National Health Service' in the sphere of accident and emergency (A&E), including the 2,852 nurses in this study. The qualitative structure of the medical and nursing resources is similar throughout the autonomous regions [9].

We hypothesize that maintaining a positive atmosphere at work, providing permanent and continuous training, and having nurses with personal motivation in accident and emergency would improve the quality of life at work and the quality of the assistance provided to the patients/clients.

Previous studies have demonstrated that greater satisfaction with the work climate is strongly related to work satisfaction, lower stress levels, and less emotional burnout [10].

The objective of this study is to enhance our knowledge of the quality of professional life (QPL) as perceived by the nurses in the accident and emergency systems in Spain. We also evaluated how these dimensions affect a healthy work environment.

2. Materials and Methods

a. Type of study

This is a transversal descriptive type study conducted within the Spanish state.

b. Sample included

The study population consisted of 2,852 nurses who were working in emergency services in 2012 at a national level [8]. The inclusion criteria for this study were the following: nursing professionals working in 112 or 061 emergency services, permanent or temporary staff in Primary or Specialized Healthcare, and no minimum training level.

Given the extent of the territory under study, the territory was divided into three zones for analytical purposes, "north", "center" and "south". The autonomous regions have been grouped using the following areas: the North Zone consisted of Galicia, Asturias, Cantabria, País Vasco, La Rioja, Navarra, Aragón, Cataluña and Castilla y León; the Center Zone consisted of Extremadura, Madrid, Castilla la Mancha and Valencia; and the South Zone consisted of Andalucía, Murcia, Islas Baleares, and Canarias.

c. Measurement instruments

The principal methodological tool in this study is the quantitative CVP-35 questionnaire. This questionnaire has been validated by Cabezas [11] and was later re-evaluated by Fernández, Santa Clotilde & Casado [12]. The study yields a quantitative score for the level of work quality on a scale of 1- 10.

d. Variables

The CVP-35 evaluates 35 items that are grouped into the following 3 dimensions: "Management support" (MS), "Work load" (WL) and "Intrinsic motivation" (IM). There are also other variables of the validated questionnaire and a fourth dimension termed Training (T), which has 5 more questions we believe are interesting for the study. The sociodemographic data have also been registered and these data allow us to obtain personal profiles to establish relationships concerning work satisfaction.

e. Description of the intervention

The statistical level of satisfaction has been fixed at 0.05, which is a standard value in health science studies (see for instance Álvarez) [13]. The confidence interval is calculated at 95%. We set the maximum error, d, equal to 1 and the greatest value of the standard deviation, σ, as 5.773 (using a quantitative value on a scale of 1 to 10). We then used the following formula:

$$N= (1.96)^2 \times (\sigma^2 / d^2)$$

The formula is derived from the construction of the confidence interval (see, García) [14] and the sample size N is at least 142. With the 328 questionnaires received, the assumed error is +/- 0.624.

Given that the normality of the quantitative variables is not guaranteed, non-parametric statistical tests were used. The specific tests used were the Kruskal-Wallis test for independent quantitative samples, the Friedman test or Spearman's correlation coefficient for related quantitative samples, the Tukey test for multiple comparisons, and the Chi-square test for qualitative samples.

The statistical program IBM SPSS Statistics 19 is commonly used in health sciences [13] and was used for the statistical analysis with the network license at the University of Extremadura.

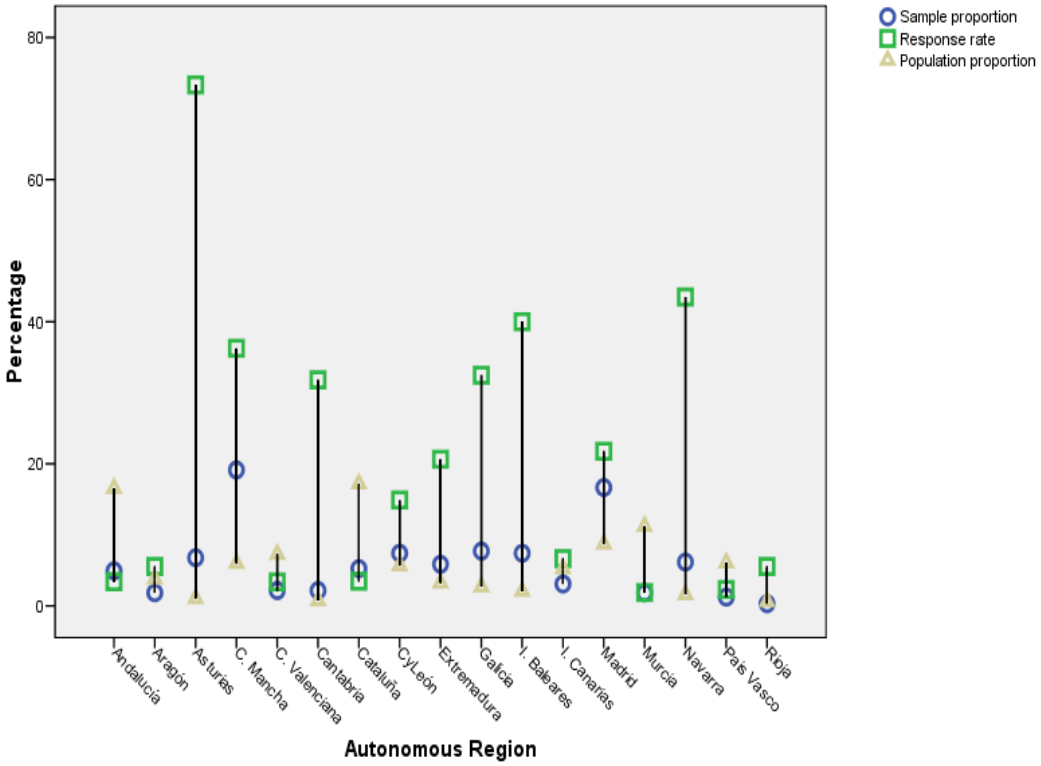
3. Results

There were 328 questionnaires received, and there were 212 female and 116 male respondents. More than 3 of 4 respondents (79.1%) were age 31 – 50. Additionally, fewer than 1 of 4 (22.1%) respondents had academic training higher than or equal to a Master's degree.

The response rate was 11.2%, and there was a difference between the autonomous regions. The lowest response rate was from Murcia (1.88%), and the highest response rate was from Asturias

(73.33%). A comparison of the response rates by zone revealed highly significant differences (p-value<0.001, Chi-square test). The South Zone had the lowest response rate, which was 5.6%. The North Zone had a response rate of 11.2%, and the Center Zone had a response rate of 19.8%. There were 126 (38.89%) questionnaires obtained from the North Zone, 142 (43.83%) from the Center Zone, and 56 (17.28%) from the South Zone. The data indicate the sample proportion per zone is not consistent with the population proportions of 39.5%, 25.3% and 35.2%, respectively (p-value< 0.001, Chi-square test). The response rate was greater in the Center Zone than in the South Zone. The sample proportion does not agree with the population (p-value< 0.001, Chi-square test) because the rate of response in the North Zone was different from that in the South Zone. However, the populations are very similar. A detailed analysis of the autonomous regions is shown in Figure 1.

Figure 1: Response rate, sample proportion, and population proportion by autonomous region.



Descriptive analysis

The descriptive analysis of the responses of both the items and the dimensions are shown in Table 1. The minimum values of the centralization measurements are found in the questions "Possibility of promotion" and "My company tries to improve the quality of life of my post" (mean and median in both below 5). The maximum values were obtained from "My work is important for the lives of other people" and "I have the necessary skills to do my current job" (mean and median in both above 8).

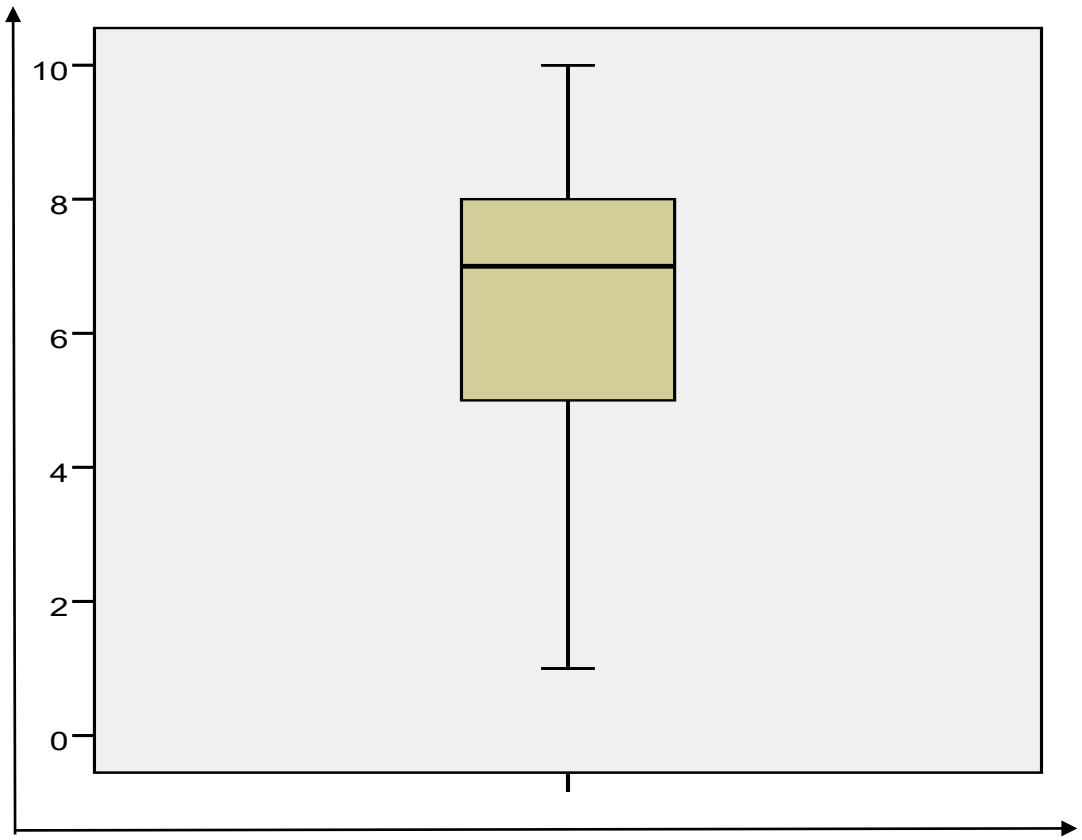
Table 1. Descriptive statistical data of the variables in descending order with respect to the mean and descriptions of the dimensions.

	N	Minimum	Maximum	Mean	Median	Standard Deviation
1. My work is important for the lives of other people	323	1	10	9.12	10	1.327
2. I have the necessary skills to do my current job	324	1	10	8.85	9	1.100
3. I am proud of the work I do	323	1	10	8.75	9	1.572
4. Family support	325	1	10	8.69	9	1.666
5. I consider the need for specialization	325	1	10	8.48	9	2.182
6. The necessary capacity to do my job	321	1	10	8.36	9	1.438
7. Satisfaction with the type of work	327	1	10	7.98	8	1.751
8. Responsibility	322	1	10	7.86	8	1.901
9. Desire to be creative	324	1	10	7.66	8	2.062
10. Motivation	328	1	10	7.63	8	2.117
11. I have clear responsibilities	325	1	10	7.47	8	2.057
12. My practical training is sufficient	324	1	10	7.45	8	2.032
13. Support of my colleagues	328	1	10	7.38	8	2.200
14. Stress (emotional)	324	1	10	7.26	8	2.294
15. Variety in my work	320	1	10	7.22	8	2.225
16. Support of colleagues	291	1	10	7.04	8	2.111
17. I can disconnect after work	327	1	10	7.02	8	2.629
18. I am sure that my professional activity will allow me to achieve personal development	327	1	10	6.98	7	2.285
19. The amount of work I have	327	1	10	6.85	7	2.003
20. Quality of life at work	323	1	10	6.76	7	2.160
21. Pressure received to maintain the quality of my work	317	1	10	6.49	7	2.282
22. Pressure I receive to maintain the	326	1	10	6.45	7	2.304

quality of my work						
23. The staff's merits and effort are seldom recognized	321	1	10	6.19	6	2.675
24. My work has negative consequences for my health	323	1	10	6.13	6	2.574
25. Lack of time to do my work causes rushed jobs and stress	327	1	10	6.10	6	2.598
26. It is possible that my answers may be listened to and applied	325	1	10	6.06	6	2.404
27. Possibility of expressing my opinion and needs	324	1	10	6.01	6	2.455
28. I have autonomy or liberty to make decisions	322	1	10	5.85	6	2.391
29. Satisfied with the salary	325	1	10	5.81	6	2.100
30. Physical discomfort at work	322	1	10	5.59	6	2.708
31. Possibility to be creative	323	1	10	5.32	5	2.481
32. The theoretical training is sufficient	320	1	10	5.27	6	2.811
33. Unwelcome interruptions	320	1	10	5.06	5	2.507
34. Support of my bosses	326	1	10	4.84	5	2.744
35. Recognition of my effort	327	1	10	4.64	5	2.384
36. I receive information concerning the results of my work	323	1	10	4.57	5	2.606
37. Lack of time for personal life	322	1	10	4.57	4	2.764
38. Conflicts with other people at work	324	1	10	4.13	3	2.508
39. My company tries to improve the quality of life of my post	324	1	10	3.89	4	2.297
40. Possibility of promotion	322	1	10	3.76	3	2.449
Management support	300	1.77	9.15	5.67	5.76	1.45
Work load	294	2.55	9.09	6.01	6.13	1.38
Intrinsic motivation	273	5.10	10	8.06	8.20	0.95
Training	313	1	10	6.87	6.80	1.27

The QPL is addressed in question number 34. Figure 2 shows 75% of respondents provided a score greater than 5. Furthermore, 50% of the responses were concentrated in values between 6 and 8. The mean score was 6.76.

Figure 2: Box diagram for the mean of question 34 referring to the quality of professional life



The dimension scores are not homogeneous (p-value<0.001, Friedman's test), and the highest values were for IM followed by T and WL. The lowest value was obtained for MS. A Tukey's multiple comparison test revealed there were highly significant differences for all dimensions except MS and WL (p-value 0.16).

There were similar responses were found for both genders. The highest p-values were obtained for the comparison of MS and WL, which was 0.609 for women and 0.842 for men. Similarly, the individual behavior of each dimension does not depend on gender (p-values>0.170, Kruskal-Wallis' test). These data are shown in Figure 3.

Figure 3: Analysis of the dimensions with respect to gender.

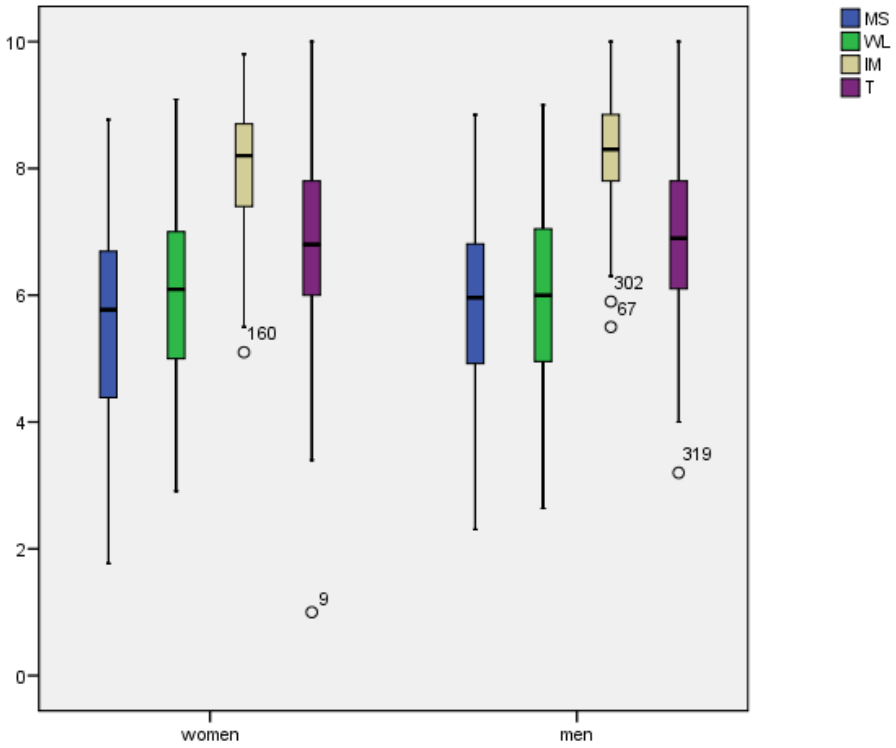
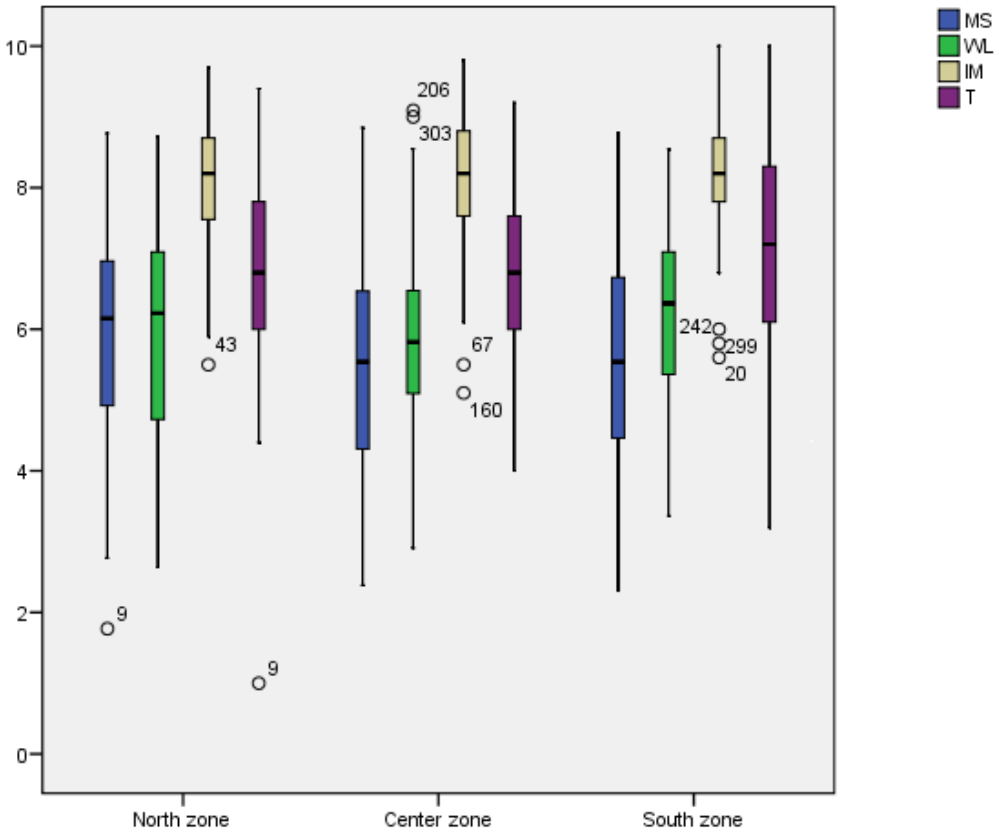


Figure 4 shows that the behavior of the dimensions by zones was similar to the overall pattern. The p-values obtained from the comparison of MS and WL are 0.907 for the North Zone, 0.420 for the Center, and 0.119 for the South. In addition, the difference between T and IM is only significant in the South Zone (p-value 0.015, Friedman's test). However, the individual behavior of the dimensions WL, IM, and T do not depend on the zone (p-values > 0.130, Kruskal-Wallis' test). The differences observed between the zones for the dimension MS are significant (p-value 0.042, Kruskal-Wallis' test). A comparison of dimension pairs shows there are differences between the North and Center Zones (p-value 0.037, Tukey's test).

Figure 4: Analysis of the dimensions with respect to zone.



The data indicate there are highly significant correlations (p-values < 0.001, Spearman's correlation coefficient) between the following factors: Q34 and IM (0.256), Q34 and T (0.301), Q34 and WL (-0.339), Q34 and MS (0.395), MS and T (0.432), IM and T (0.439), and between MS and IM (0.521) when ordered from smallest to largest according to the absolute value of Spearman's correlation coefficient (value in parenthesis). The other combinations of dimensions and Q34 (QPL) are not significant (p-values >0.135, Spearman's correlation coefficient). Figure 5 shows that the relationship with the highest correlation was obtained between MS and IM.

4. Discussion

The positive evaluations obtained for the dimensions IM and T indicate these factors have a greater influence on QPL than are currently perceived. Our results suggest that IM is the most important dimension. The low evaluations of MS suggest this area requires additional attention.

The high rate of response obtained during the study period allowed us to achieve our proposed study objective. The sample is sufficiently large, which improves reliability. The response rate was very heterogeneous in all the autonomous regions in general and in the division by zones in particular. Thus, the relatively small number of responses from the South Zone is worth noting. Although this area has a greater population proportionally, it had the least participation. This result may be related to deficient diffusion of the questionnaire or may reflect decisions of the professionals themselves.

The gender analysis showed that both men and women value the variables in a similar way.

The high score for the item "I consider the need for specialization" shows the nurses who work in the emergency services demand the development of a specialty in A&E. Additionally, the highest value for "my work is important for the lives of other people" indicates the responsibility these professionals demonstrate in their work and the importance of their work.

The correlation data show that QPL is highly influenced by the MS, WL, T and lastly by IM. Therefore, the studied dimensions will directly increase the more they are performed.

Our results are similar to other studies in the health sector and demonstrate the utility of the CVP-35 as an instrument for evaluating the quality of the professional life of nurses.

This study should lead to more research and the creation of tools aimed at supporting professionals to increase their perception of the quality of life at work by focusing on the least valued variables and dimensions. It is important to consider the QPL of workers and its influence on productivity and the quality of care.

Limitations

One of the main limitations in this study is the diffusion of the questionnaire throughout the territory. In addition, the only way to send the questionnaire was by telematic means, which may have reduced the response rate.

Another limitation was the limited bibliographic references for previous studies of the QPL in this group of professionals and recent references in other healthcare spheres. These limitations reduced the comparisons with the results obtained from our study.

Despite these limitations, we still think it is useful to know more about the current quality of life at work for nurses in A&E. The use of this type of questionnaire is applicable to any healthcare sphere and will enable us to create initiatives to prevent "burnout" in professionals from the start of the nurse's working life. These data will also improve the quality of the service received by patients.

5. Conclusions

Nurses in Spain's 112 and 061 emergency systems currently perceive that they have a good quality of life at work. Nurses are highly motivated and have a desire to continue learning but demand more support from their employer. These professionals provide the citizens with quality services during emergencies.

Author Contributions:

Beatriz Ruiz Antón conceived and designed the experiments, performed the experiments, and wrote the manuscript.

Rodrigo Martínez Quintana analyzed the data.

Conflicts of Interest: The authors declare no conflict of interest.

Abbreviations

The following abbreviations are used in this manuscript:

QPL: quality of professional life
IM: intrinsic motivation
WL: work load
T: training
MS: management support

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