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Compassion Satisfaction, Compassion Fatigue, and Burnout in Spain and Brazil: ProQOL validation and cross-cultural diagnosis

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Compassion Satisfaction, Compassion Fatigue, and Burnout in Spain and Brazil: ProQOL validation and cross-cultural diagnosis

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sampling. Special thanks to Hospital Nossa Senhora da Conceiçao, in Porto Alegre, also in Brazil for their active participation in pilot sampling and helpful comments.

Compassion Satisfaction, Compassion Fatigue, and Burnout in Spain and Brazil: ProQOL validation and cross-cultural diagnosis

Running Head: ProQOL validation and cross-cultural diagnosis

Abstract

Context: Palliative care professionals' quality of life has emerged as a growing issue of interest in healthcare literature, centered on concerns about professionals' compassion within a context of work characterized by pain and death. **Objectives:** The aim of this study is threefold: (1) to study the psychometric properties of both the Spanish and the Portuguese versions of the ProQOL scale, by means of confirmatory factor analyses; (2) to offer a diagnosis of compassion satisfaction and compassion fatigue levels of Spanish and Brazilian palliative care professionals; and (3) to compare levels in ProQOL between countries. **Methods**: Two surveys with a cross-sectional design were carried out. 161 Brazilian palliative care professionals and 385 Spanish participated in this study. **Results**: Confirmatory factor analysis for both the Spanish and the Portuguese versions showed an adequate fit. Reliability estimates were also adequate, with problems with the burnout dimension. Spanish and Brazilian palliative care professionals showed high levels of compassion satisfaction (specially, for the Brazilian samples), medium levels of secondary traumatic stress, and low levels of burnout. Finally, statistically significant differences in Spanish and Brazilian levels of compassion satisfaction and secondary traumatic stress were found, but not in burnout. **Conclusion**: the ProQOL shows psychometric goodness in its Spanish and Portuguese versions, although some items should be revised. Additionally, it is useful for diagnosis and is sensitive enough to distinguish nuances as the found between Brazilian and Spanish professionals.

Key words: Compassion satisfaction; Compassion fatigue; Burnout; Quality of Life; Palliative care professionals.

Running title: ProQOL in Spain and Brazil

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Compassion Satisfaction, Compassion Fatigue, and Burnout in Spain and Brazil: ProQOL validation and cross-cultural diagnosis

1 Introduction

Professionals' quality of life has emerged as a growing issue of interest in healthcare literature, centered on concerns about professionals' compassion within a context of work characterized by pain and death.

As Balint yet exposed in 1957, the medicine most widely used in medical practice is the professional itself.[1] In this sense, it is not surprising that, from the beginning of stress research, working in social and health services have been pointed out as particularly stressing.[2] This stress is not only due to management requirements of healthcare institutions,[3,4] but primarily to the daily contact with disease and death.[5,6] In fact, when Firth-Cozens and Morrison[5] asked internal doctors for the sources of stress, the most common answer was "having to deal with death and dying". In Whippen and Canellos,[6] 59% out of 598 oncologists showed burnout, and more than a half ascribed it to the contact with terminal illness.

When speaking of stress in the work context, a related symptom has been diagnosed and deeply studied: the burnout. Burnout has been defined as "a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do 'people-work' of some kind".[7] It has been applied to almost every occupation in which it exists a care relation[8] and has been traditionally associated to cognitive, affective, behavioral, and relational symptoms.[9,10] But consequences of burnout are not only for professionals,[11] but also for their patients.[12] In the last decades, another syndrome associated to stress has been defined within the healthcare context, the secondary traumatic stress.[13] This has been defined as the negative feelings and behaviors that professionals' contact with the patients' trauma and his/her stressful experiences causes them.[14] However, literature on secondary trauma is scarce,[13,15] with few studies in palliative care professionals in the last years.[16-19] Burnout and secondary traumatic stress can take place together, and when it happens professionals suffer from compassion fatigue, a reduction in professional's capacity or interest to be empathetic to patients.[20-23] Compassion fatigue has been characterized by symptoms including apathy,

depression, clinical judgment mistakes, sleep disorders, and hypertension,[24] sense of helplessness, anger, and feelings suppression,[25] and anxiety and intrusive thoughts.[26]

In opposition to compassion fatigue, a recent concept has been proposed: the compassion satisfaction.[27] It has been conceptualized as the pleasure or the positivity derived from helping others.[17,28] As Simon, Pryce, Roff and Klemmack[29] explain, compassion satisfaction is the “ability to receive gratification from caregiving” (p. 6). Research on this construct is limited and in a recent study on compassion in clinical health care only 44 studies were found.[30] Specifically in the palliative care context, and as far as we know, only one empirical study has been carried out.[19] As some outcomes of compassion include an increased sense of responsibility and control over patients' health,[31,32] patients' feeling heard and understood,[33] an increase on patients' trust toward clinicians, or an increase of patients' hope,[34] compassion satisfaction, together with compassion fatigue, need to be studied when it comes to palliative care. Thus, they are becoming an important part of research.

Among the outcome measures developed, one has been most prominently used: the Professional Quality of Life Scale.[35] The ProQOL is composed of three subscales, measuring burnout, secondary trauma, and compassion satisfaction. The scale has been translated into several languages, such as Chinese, Filipino, Finnish, French, German, Greek, Hebrew, Italian, Japanese, Khmer, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, or Turkish; and in recent studies has shown appropriate estimates of reliability.[36,37] However, its factorial structure has not yet been tested. Additionally, information on compassion satisfaction and fatigue prevalence in palliative care professionals is unknown.

Taking into account the previously exposed, the aim of this study is threefold: (1) to study the psychometric properties of both the Spanish and the Portuguese versions of the ProQOL scale, by means of confirmatory factor analyses; (2) to offer a diagnosis of compassion satisfaction and compassion fatigue levels of Spanish and Brazilian palliative care professionals; and (3) to compare levels between countries.

2 Methods

2.1 Study design, setting, participants

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In the first place, the sample with the greatest size is described, followed by the smallest one.

2.1.1 Spanish study design, setting, participants

A cross-sectional survey of Spanish palliative care professionals was conducted. Survey was carried out with the Survey Monkey platform, which assures all confidentiality and security standards. The study was approved by the Spanish Society of Palliative Care (*Sociedad Española de Cuidados Paliativos*, SECPAL) board in accordance with their statutes for conducting ethical research. Participation in the survey required responders' informed consent and was voluntary; data were aggregated thereafter. All associate members of the SECPAL were invited to answer the survey that included, among others, the ProQOL.[27] 385 professionals were finally included in the sample. Details can be consulted in Table 1.

2.1.2 Brazilian study design, setting, participants

This research also had a cross-sectional design. Brazilian palliative care professionals were surveyed using the online platform Survey Monkey. The study was authorized and supported by the Brazilian National Academy of Palliative Care (ANCP) scientific communication responsible. Thus, voluntary participation in the survey was promoted through social networks associated to ANCP. Respondents' informed consent was required. ProQOL[27] was one of the instruments included. Sample consisted of 161 professionals. Details can be consulted in Table 1.

2.2 Main outcome measures

Among the several instruments used in this research, the ProQOL[27] is the one under scrutiny. This is a 30-item instrument measuring the two main components of professionals' quality of life: compassion fatigue and compassion satisfaction. Two subscales compose the compassion fatigue assessment: burnout and secondary traumatic stress, both of them with 10 items. Compassion satisfaction is also assessed with 10 items. It has a 6-point Likert type scale format, ranging from 0 (never) to 5 (always).

2.3 Data analyses

Validity and reliability of the ProQOL measure on both its Spanish and Portuguese versions were first assessed. For the study of the factorial structure, two confirmatory factor analyses were specified and tested, with a completely *a priori* factor structure: three correlated factors, namely burnout, secondary traumatic stress, and

compassion satisfaction. Criteria used to determine good fit were: CFI above .90 (better if above .95) and RMSEA below .08 (better if below .05).[38] Once evidence on internal validity was gathered, reliability estimations were calculated.

After the examination of the psychometric properties, a first diagnosis of palliative care professionals' compassion fatigue and compassion satisfaction levels was offered, by calculating means, standard deviations, and percentages of professionals diagnosed with low, medium, and high levels of burnout, secondary traumatic stress, and compassion satisfaction.

Finally, a comparison between Spanish and Brazilian palliative care professionals' quality of life was carried out. Chi square tests were calculated, with statistically significant results indicating disparity on frequency distributions in the three categories examined for the two countries. Cramer's V were calculated, with values of .07, .21, and .35, indicating small, medium, and big effect size, respectively.[39]

3 Results

3.1 PROQOL's psychometric properties

Confirmatory factor analyses showed an adequate overall fit for both samples (see Table 2). As regards the analytical fit, only two items resulted non-statistically significant: item 2 ("I am preoccupied with more than one person I [help]") and item 29 ("I am a very caring person"), in the case of the Portuguese ProQOL, and item 4 ("I feel connected to others"), for both the Spanish and the Portuguese versions. Item descriptive statistics, together with their factorial loadings can be consulted in Table 3. Correlations among factors were -.580 and -.712 between compassion satisfaction and secondary traumatic stress, for the Spanish and the Brazilian samples, respectively; -.590 and .808 between compassion satisfaction and burnout; and .966 and .864 between secondary traumatic stress and burnout. All of them were statistically significant ($p < .001$).

Reliability estimations were adequate for the compassion satisfaction and the secondary traumatic stress subscales, in the Spanish and the Portuguese versions: Cronbach's alphas were .774 for compassion satisfaction and .782 for secondary traumatic stress; and .857 for compassion satisfaction and .770 for secondary traumatic stress; for Spanish and Brazilian samples, respectively. However, estimations for the

burnout scale indicated reliability problems in the both versions, with an alpha of .537 in the Spanish version and of .654 in the Portuguese one.

3.2 Quality of life diagnosis

Means and standard deviations were calculated for each of the dimensions of the ProQOL. Additionally, professionals were classified into low, medium and high levels of compassion satisfaction, secondary traumatic stress, and burnout. In the case of Spain, most of the professionals showed high (48.30%) or medium (47.40%) levels of compassion satisfaction, whereas the majority of them had a medium level of secondary traumatic stress (62.70%), and a low level of burnout (65.70%). As regards Brazilian palliative care professionals, most of them showed high levels of compassion satisfaction (60.00%), medium levels of secondary traumatic stress (56.60%), and low levels of burnout (68.50%). For detailed information see Table 4.

3.3 Cross-cultural comparison

A comparison between Spanish and Brazilian palliative care professionals' quality of life was carried out. A first chi square test compared the distribution of compassion satisfaction levels between Spanish and Brazilian palliative care professionals, with statistically significant results: $\chi^2(2) = 17.190$, $p < .001$, Cramer's V = .202. When frequency distributions were examined, the Spanish context showed, compared to the Brazilian, less professionals with low and high compassion satisfaction (4.30 vs. 12.60% for Spanish and Brazilian professionals with low levels of compassion satisfaction; and 48.30 vs. 60.00% with high levels), and a larger percentage of professionals with a medium level (47.40 vs. 27.40% for Spanish and Brazilian professionals with medium levels of compassion satisfaction).

The second chi square studied the differences between countries in secondary traumatic stress levels. Again, statistically significant results were found: $\chi^2 (2) = 8.072$, $p = .018$, Cramer's V = .138. Brazilian professionals appeared to have higher levels of secondary traumatic stress, although with small differences: they showed less frequencies of low and medium secondary traumatic stress (14.10 vs. 20.50% for Brazilian and Spanish professionals with low levels of secondary traumatic stress; and 56.60 vs. 62.70% with medium levels), and larger frequency of high secondary traumatic stress (29.30 vs. 16.80% for Brazilian and Spanish professionals with high levels of secondary traumatic stress).

Finally, when levels of burnout were examined, no statistically differences between countries were found: χ^2 (2) = 1.195, p = .550, Cramer's V = .053.

A comparison of levels of compassion satisfaction, secondary traumatic stress, and burnout among professions and countries was also carried out. These levels, which are displayed in Figure 1, showed some interesting information. As regards levels of compassion satisfaction, these were higher in the case of Brazilian doctors, nurses, and social workers, when compared to the Spanish ones. Higher levels of secondary traumatic stress were found for Spanish and Brazilian social workers, being especially higher for the latest. And higher levels of burnout were found for Brazilian psychologists, especially if we compared them to the Spanish ones, which showed no high levels of burnout.

4 Discussion

The assessment of compassion satisfaction and compassion fatigue has become an important issue in the professional caregivers. On one hand, compassion fatigue can negatively affect professionals' health;[24-26] and it can also produce negative outcomes in patients' health.[12] On the other, when it comes to compassion satisfaction, it can produce an increased sense of responsibility and control over patients' health, patients' feeling heard and understood, an increase on patients' trust toward clinicians, and an increase of patients' hope.[31-34] It is a nontrivial task, then, to assess and take into account our professionals' levels on both phenomena.

With this purpose, the first aim of this research was to study the psychometric properties of one of the most used instruments for compassion fatigue and satisfaction evaluation: the Professional Quality of Life Scale.[35] Two confirmatory factor analyses were carried out, posing an *a priori* three-correlated-factor structure. Results of the models were appropriate, and offered evidence of the existence of the three factors proposed by Stamm:[27] compassion satisfaction, secondary traumatic stress, and burnout. When the analytical fit of the models was examined, problems three items appeared, with no statistically significant loadings. Reliability estimations were adequate for the compassion satisfaction and the secondary traumatic stress subscales, but they were not for the burnout dimension. This is in line with the problems found with two of the three non-significant items, both of them coming from the burnout factor. As both items are

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some of the few reversed items used in the ProQOL, this could be pointing the existence of a method effect. In this sense, recent research has shown that none of the traditional benefits associated with the negatively worded items are currently accepted, namely: a) including negatively worded items will avoid response bias (response styles or response sets); b) negative items will not impact scales' quality; c) negatively worded items will not affect validity; and d) negatively and positively worded items measure the same construct.[40] In fact, evidence point out that reliability estimates of a scale are markedly lower when negatively worded items were included. [41]

As regards the second aim of the study, results on the diagnosis of compassion satisfaction and compassion fatigue levels of Spanish and Brazilian palliative care professionals showed high levels of compassion satisfaction (specially, for the Brazilian samples), medium levels of secondary traumatic stress, and low levels of burnout. From these data it can be concluded that secondary traumatic stress and burnout are psychometrically different constructs, because of the confirmatory factor analyses results, but also empirically distinct constructs, as their prevalence substantially vary. In fact, most of the professionals showed medium levels of compassion fatigue, whereas burnout levels remained low in its majority. And this was true both in the Spanish and the Brazilian contexts. This is in line with recent studies. Devilly et al.[13], for instance, found, in a sample of mental health professionals, that secondary traumatic stress and burnout, although being highly convergent constructs, displayed construct validity. Taking this into account, ProQOL emerges as an ideal instrument for such an assessment, as it includes both the positive side of compassion fatigue, the compassion satisfaction, which has traditionally been forgotten; and it includes burnout and secondary traumatic stress as different dimensions.

Finally, results of the comparison between the Spanish and the Brazilian palliative care professionals pointed out statistically significant differences in their levels of compassion satisfaction and secondary traumatic stress, but not in burnout. Spanish professionals showed a major tendency to medium levels of compassion satisfaction and lower levels of secondary traumatic stress. Causes on these differences should be studied. For instance, the differences between Spanish and Brazilian distributions in profession, workplace, or years of experience, may have affected these levels. Future studies focused on the possible causes of these differences would be welcomed.

All in sum, it can be concluded that the ProQOL shows psychometric goodness in its Spanish and Portuguese versions, although some items should be revised. Additionally, it is useful for diagnosis and is sensitive enough to distinguish nuances as the found between Brazilian and Spanish professionals.

Disclosures

The authors declare no conflict of interests.

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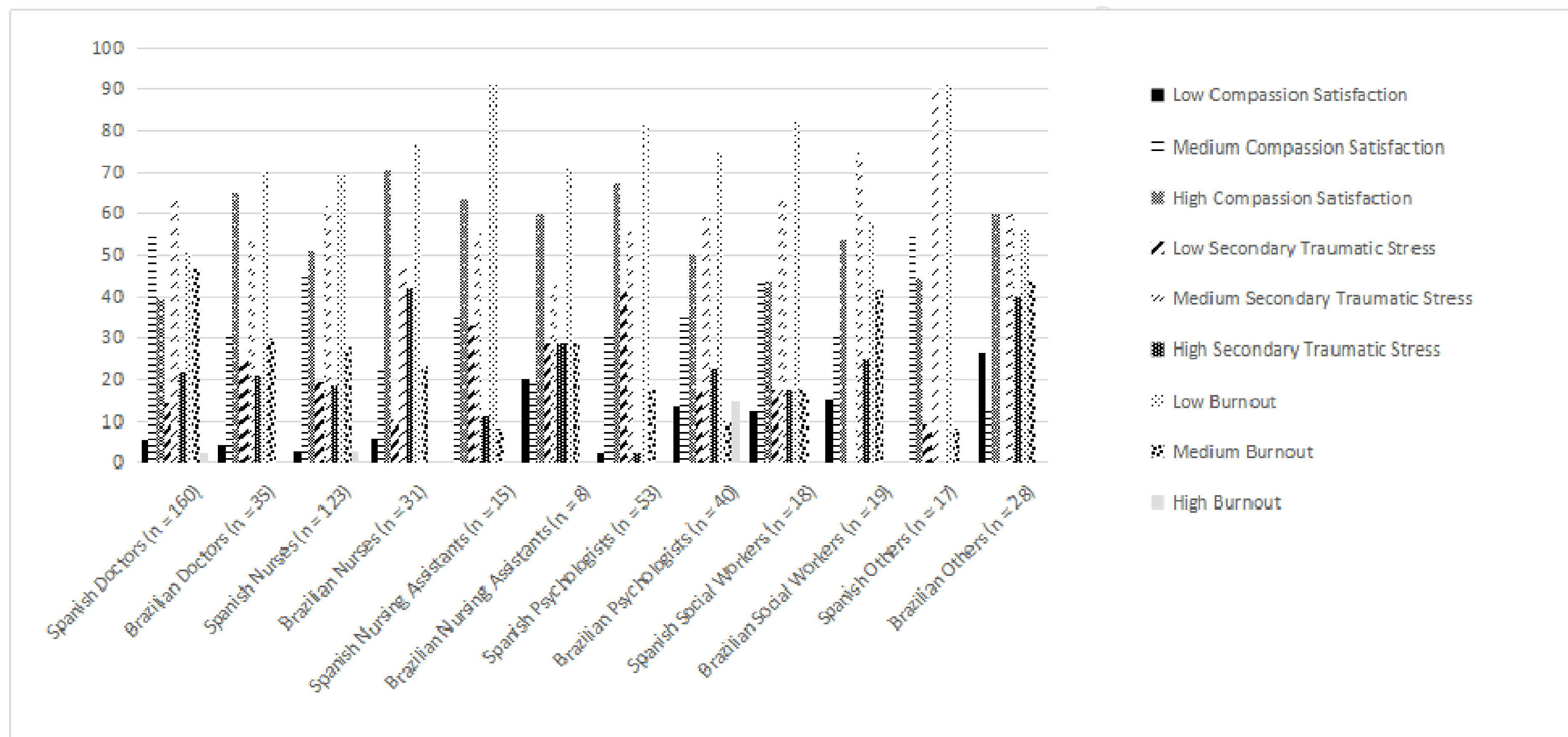
Figure 1. Professionals' levels of compassion satisfaction, secondary traumatic stress and burnout, based on their country and profession



Notes: Bars represent, in this order: percentage of professionals with low compassion satisfaction; percentage of professionals with medium compassion satisfaction; percentage of professionals with high compassion satisfaction; percentage of professionals with low secondary traumatic stress; percentage of professionals with medium secondary traumatic stress; percentage of professionals with high secondary traumatic

stress; percentage of professionals with low burnout; percentage of professionals with medium burnout; percentage of professionals with high burnout

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Table 1. Demographic characteristic data of the participants

		Spanish sample	Brazilian sample
		%	%
Sex	Men	22.5	11.3
	Women	77.5	88.7
Profession	Doctors	40.3	21.1
	Nurses	33.1	19.3
	Psychologists	14.2	24.8
	Nursing assistants	4.8	5.0
	Social workers	4.0	11.8
	Other	0.8	18.0
Work setting	Hospital unit of Palliative Care	24.9	28.4
	Home-based Palliative Care	26.5	16.4
	Social-health center unit of Palliative Care	12.5	--
	Hospital support team	9.9	--
	Hospice	1.6	--
	Oncology unit	--	24.6
	Intensive treatment unit	--	8.2
	Pediatric unit of Palliative Care	1.0	5.2
	Others	23.6	17.2
		M (SD)	**M (SD)**
Professional experience	Years working in health care	21.34 (9.59)	11.65 (10.31)
	Years working in palliative care	10.69 (6.59)	4.97 (4.42)

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Table 2. Model fit of the ProQOL for the Spanish and the Brazilian samples

Sample	χ^2	**df**	p	**CFI**	**RMSEA (confidence interval)**
Spanish	1068.531	402	< .001	.936	.074 (.069-.080)
Brazil	621.713	402	< .001	.943	.081 (.068-.092)

Notes: df = degrees of freedom.

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Table 3. Means, standard deviations, and factorial loading of the ProQOL items for the Spanish and the Brazilian samples

Item	Dimension	Spanish sample			Brazilian sample		
		M	SD	λ	M	SD	λ
1*	BO	1.362	0.763	.449	1.306	0.833	.554
2	STS	2.982	1.090	.280	3.230	1.135	.033
3	CS	4.577	0.580	.661	4.505	0.672	.779
4*	BO	1.147	1.033	.040	1.121	0.971	.200
5	STS	1.818	1.232	.340	1.633	1.120	.380
6	CS	4.278	0.799	.643	4.029	1.099	.636
7	STS	1.813	1.182	.525	1.663	1.290	.406
8	BO	1.169	0.972	.634	1.260	1.260	.374
9	STS	0.871	0.790	.714	0.782	0.923	.666
10	BO	1.226	1.189	.725	1.316	1.199	.733
11	STS	1.209	1.090	.725	1.564	1.314	.541
12	CS	4.635	0.646	.728	4.722	0.601	.779
13	STS	0.758	0.878	.729	1.019	0.989	.708
14	STS	0.713	0.889	.668	1.029	1.126	.658
15*	BO	1.500	1.620	.211	1.363	1.803	.506
16	CS	3.507	1.023	.532	3.414	1.414	.452
17*	BO	1.410	0.956	.456	1.376	1.103	.538
18	CS	4.166	0.775	.824	4.070	1.007	. 746
19	BO	1.687	1.093	.614	1.850	1.290	.565
20	CS	3.971	0.839	.659	4.242	0.937	.677
21	BO	1.798	1.185	.634	1.717	1.325	.632
22	CS	3.262	1.079	.446	3.782	1.196	.549
23	STS	0.704	0.875	.712	1.415	1.358	.582
24	CS	4.051	1.126	.679	4.108	1.232	.816
25	STS	0.692	0.834	.736	1.019	1.058	.705
26	BO	1.739	1.310	.474	1.940	1.469	.511
27	CS	3.913	0.752	.531	4.200	0.681	.540
28	STS	0.991	0.998	.500	0.850	0.946	.695
29*	BO	2.614	1.313	.320	1.762	1.350	.131
30	CS	4.440	0.773	.792	4.584	0.738	.849

Notes: CS = Compassion Satisfaction; STS = Secondary Traumatic Stress; BO = Burnout; marked with * are reversed items.

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Table 4. Means, standard deviations, minimum and maximum scores, % of low, medium and high levels of compassion satisfaction, secondary traumatic stress, and burnout, for the Spanish and Brazilian samples

Country	Dimensions	M	SD	Min	Max	% Low	% Medium	% High
Spain	Compassion Satisfaction	41.05	4.79	24.00	50.00	4.30	47.40	48.30
	Secondary Traumatic Stress	12.42	5.79	0.00	40.00	20.50	62.70	16.80
	Burnout	15.62	5.13	0.00	31.00	65.70	32.50	1.80
Brazil	Compassion Satisfaction	41.63	6.61	23.00	50.00	12.60	27.40	60.00
	Secondary Traumatic Stress	14.24	6.47	1.00	34.00	14.10	56.60	29.30
	Burnout	15.05	6.34	2.00	32.00	68.50	28.30	3.30

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