

## ASSESSMENT OF THE PSYCHOMETRIC PROPERTIES OF THE PORTUGUESE VERSION OF THE DUKE UNIVERSITY RELIGIOSITY INDEX (P-DUREL)

### AVALIAÇÃO DAS PROPRIEDADES PSICOMÉTRICAS DA VERSÃO EM PORTUGUÊS DA ESCALA DE RELIGIOSIDADE DA DUKE (P-DUREL)

### EVALUACIÓN DE LAS PROPIEDADES PSICOMÉTRICAS DE LA VERSIÓN EN PORTUGUÉS DEL ÍNDICE DE RELIGIOSIDAD DE DUQUE (P-DUREL)

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## ABSTRACT

The study aimed to evaluate the psychometric properties of the Portuguese version of the Duke Religiosity Scale (P-DUREL). The sample consisted of 600 people from a city of Minas Gerais. Internal consistency and test-retest measures were used to check reliability. Concurrent criterion validity was investigated by correlation with the Ferrans and Powers Quality of Life Index. The convergent construct validity was analyzed by the correlation with the Religious Feeling Measurement Scale, and discriminant validity was tested by comparing the values obtained among people with chronic diseases, using medications, carrying out religious practices, and of different age groups. The factorial analysis was interpreted by the principal component method. The P-DUREL had high internal consistency as indicated by the agreement between the test and retest measures; the criterion and construct validity were confirmed by statistically significant correlations. The factorial analysis confirmed that the formed factors are similar to the original ones.

**Keywords:** Validation Study; Religion; Psychometric.

## RESUMO

O objetivo foi avaliar características psicométricas da versão em português da Escala de Religiosidade da Duke (P-DUREL). A amostra foi de 600 pessoas de uma cidade sul-mineira. A confiabilidade foi verificada pela consistência interna e teste-reteste. A validade de critério concorrente foi averiguada pela correlação com o Índice de Qualidade de Vida de Ferrans e Powers. A validade de construto convergente analisada pela correlação da Escala de Medida de Sentimento de Religiosidade e discriminante foi testada comparando-se valores obtidos entre pessoas com doença crônica, uso de medicamentos, prática religiosa e faixas etárias. A análise fatorial foi interpretada pelo método de componentes principais. A DUREL teve alta consistência interna, houve concordância entre o teste e reteste; as validades de critério e construto foram confirmadas pelas correlações estatisticamente significativas. A análise fatorial confirmou que os fatores formados são semelhantes aos originais.

**Palavras-chave:** Estudos de Validação; Religião; Psicometria.

## RESUMEN

El objetivo de este estudio fue evaluar las características psicométricas de la versión en portugués del Índice de Religiosidad de Duke (P-DUREL). La muestra estuvo constituida por 600 residentes de una ciudad del sur del Estado de Minas Gerais. La fiabilidad fue verificada por la consistencia interna y por la prueba re-prueba. La validez concurrente fue calculada por la correlación con el índice de calidad de vida de Ferrans y Powers. La validez de constructo convergente fue analizada por la correlación de la escala de medida de sentimiento de religiosidad; la validez discriminante fue probada comparando los valores obtenidos entre personas con enfermedad crónica, el uso de medicamentos, la práctica religiosa y las franjas etarias. El análisis factorial fue interpretado por la concordancia entre la prueba y la re-prueba; la validez de criterio y la validez de constructo fueron confirmadas por las correlaciones estadísticamente significativas. El análisis factorial confirmó que los factores formados son semejantes a los originales.

**Palabras clave:** Estudios de Validación; Religiión; Psicometría.

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## INTRODUCTION

Although for centuries science and religiosity have traced different and often divergent paths, the last two decades have evidenced a clear tendency of approximation between these two areas of human knowledge.<sup>1</sup>

The scientific literature has recently explored the implications related to religion and spirituality in both physical and mental health responses. Although the results of the researches are not univocal, it is observed through many evidences that religiosity and spirituality can improve the subjective state of well-being, decrease the levels of depression and distress, reduce morbidity and mortality, as well as be a possible preventive factor for the development of diseases in previously healthy populations, possible increase of survival and impact on the various diseases.<sup>2,3</sup> Recent studies show that people with more religiosity or spirituality have better general well-being, lower prevalence of depression, less abuse of illicit or licit drugs, lower incidence of suicide, better quality of life, more survival and lower length of hospitalization, among others relations.<sup>4</sup> Spirituality and religiosity play important roles in the psychic life of people, and can exert both positive and negative effects.<sup>5</sup>

Studies reveal a high level of religious involvement and tendency towards religiosity in the Brazilian population. Religiosity is a striking feature of the Brazilian population; 95% of the population has a religion, 83% consider it very important in their lives, about 70% profess to be Catholics, and 37% participate in a religious service at least once a week. The interest in the study of religiosity and its relationships with physical and mental health has progressively grown.<sup>6-8</sup> Particularly in moments of serious health problems, patients, and especially the elderly, manifest a great need for religious assistance. However, it is imperative that health professionals develop communication skills and interventions in the area of religion and spirituality, because they can increment the care for the elderly.<sup>9</sup>

Health-related spirituality and religiosity have become a paradigm to be established and experienced in the nursing clinical practice, which states: "the nurse is not responsible only for what is material in her attention to the patient, but for a being who has life and suffers as a whole: body, mind and spirit". In the totality of their care, nursing involves the dimension of religiosity. In the attempt to highlight this need and importance, the *North American Nursing Diagnosis Association* (NANDA) stands out. This is a nursing organization created in 1982 that seeks to validate and classify nursing diagnoses in the area of religiosity, such as: "improved disposition to religiosity", "impaired religiosity" and "risk of impaired religiosity".<sup>10</sup>

Religiosity is understood as the degree to which the individual believes, follows, and practices a religion. It covers the organizational, non-organizational and intrinsic dimension. The organizational dimension is related to public participation in religious services performed or developed in churches or temples. On the

other hand, the non-organizational includes practices of religious activities outside the religious institution. It refers to reading the bible, praying the rosary, religious meditations and others. The intrinsic dimension refers to beliefs, psychological aspects of religion, knowledge and attitudes related to religious experience.<sup>11</sup>

The Duke University Religiosity Index (DUREL) is a five-item scale that measures three of the major dimensions of religious involvement related to health outcomes:<sup>12</sup>

1. organizational religiosity (OR), which refers to item 1: frequency of attendance at religious meetings (e.g. masses, services, ceremonies, study or prayer groups, etc.);
2. non-organizational religiosity (NOR) consists of item 2: frequency of private religious and spiritual activities, for example, at home (e.g. prayers, meditation, reading religious texts, listening to or watching religious programs on TV or radio);
3. intrinsic religiosity (IR) is formed by items 3 to 5: it is aimed at the search for internalization or introspection and full experience of religiosity as the main objective of the individual; immediate ends are considered secondary and achieved in harmony with basic religious principles.<sup>13</sup>

Regarding the scoring of the instrument, it is recommended that the three individual domains do not be summed in a total score, but analyzed separately. The response options of the last three items are in type scale. This is a succinct and easy-to-apply instrument.<sup>13</sup>

This scale had its original version translated into Brazilian Portuguese by a group of researchers.<sup>14</sup> Subsequently, it was validated by two distinct surveys, the first in a sample taken from a low-income population coming from the community of the city of São Paulo<sup>15</sup> and the second with university students from the health area (Medicine and Psychology) of the Federal University of Ceará and a group of patients attended at the General Psychiatry clinic of the Walter Cantídio University Hospital. The results of these studies demonstrated high internal consistency, as well as adequate discriminant and convergent validity.<sup>13,15</sup>

Considering the abovementioned aspects and the increasing relevance of the theme, further studies in our country are desperately needed. However, one limitation for developing more research in Brazil is the relative scarcity of short and simple religiosity scales that provide relevant data to measure different dimensions of religiosity, as well as related constructs.<sup>13</sup>

Therefore, the objectives of the present study were to analyze the reliability (internal stability and consistency) and to examine the validity of concurrent criteria, as well as the validity of the convergent and discriminant construct of the Portuguese version of the *Duke University Religiosity Index* (P-DUREL) in people living in the city of Minas Gerais.

This study had a quantitative and methodological character. The participants were both male and female, aged 20 or

older and resident in Itajubá-MG. The final sample consisted of 600 people, being 309 women and 291 men, proportionally distributed according to gender based on the total number of men and women residing in Itajubá-MG. The criteria established to stipulate the size of the sample took into account that the larger the sample, the more representative it tends to be; the larger the sample, the smaller the sampling error. As there is no standard in the literature to determine the sample size for the retest, 90 re-evaluations were carried out, which corresponded to 15% of the initial sample. Sampling was non-probabilistic by quotas (gender and age group). Participants were found in public squares, workplaces, churches, schools and at various other locations. At the moment of approaching, the invitation was made and the interview scheduled, in case of acceptance of participation. The interview period was from March to October 2010. Interviews were carried out by an interviewer who was duly trained and prepared not only to apply the instruments, but also to approach the participants, and regarding the knowledge of religiosity as a construct. Twenty people were not located after scheduling the interview.

The following inclusion criteria were adopted: acceptance to participate in the study, ability to communicate verbally, absence of cognitive disorders, and residence in Itajubá-MG.

As for the data collection procedures, the interviews were previously scheduled, either by personal contact or by telephone. They were carried out in the most diverse neighborhoods of the city and, specifically, in the domicile of the participants. The technique of data collection used was direct structured interviews.

The study was approved by the Research Ethics Committee (REC), Wenceslau Braz School of Nursing, Itajubá-MG, under protocol nº 266/2009.

The following instruments were used for data collection:

1. personal, family, social, economic and health characterization form: aimed at obtaining data related to gender, age, marital status, schooling, religious practice, work, salary, health and illness information, among others. The questions of this instrument: "How old are you?"; "Do you practice any religion?"; "Do you have any chronic illness?" and "Do you take medicine?" were used for discriminant validation;
2. the Portuguese version of the Duke University Religiosity Scale (P-DUREL);
3. the Ferrans and Powers Quality of Life Index: developed by North American nurses<sup>16</sup>, and including two parts: the first measures satisfaction with various domains, and the second the importance given by volunteers to each of these domains. Each part consists of 33 items, which reflect four domains (subscales): health/functioning (13 items), socioeconomic (eight items), psychological/spiritual (seven items) and family (five items). The index has been adapted and validated for Brazilian culture.<sup>17,18</sup> In this study, it was

used for concurrent criterion validity and applied to all the participants;

4. religious feeling measurement scale: this scale was created by North American authors<sup>19</sup> and has been validated for the Brazilian culture.<sup>13</sup> Its final version consists of in 15 items. This scale was used in the present study for testing the convergent construct validity and was applied to the whole sample.

The discriminant construct validity was tested by comparing the values obtained in the IR domain in relation to presence of chronic disease, drug use, religious practice and age groups.

The following statistical procedures were used in this work: absolute and relative frequency, measures of central tendency and dispersion, for descriptive statistics; in the case of inferential statistics, the following methods were used: the Cronbach's alpha coefficient to evaluate the internal consistency of the scales; the Kappa index to analyze the test-retest (item-by-item); a t-test to compare sociodemographic variables, the IR domain, and the test-retest results; the Pearson correlation coefficient to evaluate the test-retest validity, the concurrent criterion validity, and the convergent construct validity; the intraclass correlation coefficient to analyze the test-retest (level of agreement); an ANOVA was used to analyze the discriminant validity (age), with Brown-Forsythe adjustment when the assumption of homogeneity of variances was not met; and a factorial analysis to check the possibility of reducing the factors of the DUREL. The level of significance adopted was < 5%.

## RESULTS

The reliability analysis is evidenced in two different moments. In the first one, the internal consistency of the total scale (five items) and of the intrinsic religiosity domain (IR: three items) is recorded. In the second moment, the stability of the scale (test-retest) is presented.

The Cronbach's alpha coefficient was used to assess the internal consistency, obtaining the following results: total scale (five items) = 0.74; IR domain (three items) = 0.74.

Table 1 - Test-retest item-by-item of the P-DUREL. Itajubá – MG, 2010 (n = 90)

Items	Index Kappa	p-value	Answers identical
1. Frequency of attendance at church, temple or religious gathering	0.68	< 0.001*	74.40%
2. Frequency of individual religious activities	0.38	< 0.001*	54.30%
3. Feeling of the presence of God	–	–	70.00%
4. Religious beliefs behind the way of life	0.36	< 0.001*	56.60%
5. Effort to practice the religion	0.36	< 0.001*	55.50%

\* Statistically significant (p < 0.05).

Table 2 - Test-retest of the P-DUREL (IR) by comparison between means. Itajubá-MG, 2010 (n = 90)

Procedures	Mean	Median	Standard deviation	Minimum Value	Maximum Value	p-value t-test
Test	5.00	5.00	2.70	3.00	15.00	0.013*
Retest	5.50	4.00	2.50	3.00	15.00	

\* Statistically significant (p < 0.05).

The test and retest results for linear correlation and homogeneity were as follows: Pearson correlation coefficient = 0.82; and intraclass correlation coefficient = 0.82.

Table 3 - Concurrent criterion validity between P-DUREL (RI) and the Total Quality of Life Index and its domains. Itajubá-MG, 2010 (n = 600)

Variables	DUREL (IR Domain) r - Pearson	p-value
QOL index (total)	-0.26	<0.001*
Health and functioning	- 0.21	<0.001*
Socioeconomic aspect	-0.20	<0.001*
Psychological-spiritual aspect	-0.28	<0.001*
Family	-0.22	<0.001*

\* Statistically significant (p < 0.05).

Table 4 - Convergent construct validity of the IR domain of the P-DUREL with the Religious Feeling Measurement Scale. Itajubá-MG, 2010 (n = 600)

Variables	Religiousness Feeling r - Pearson p-value	
DUREL (IR Domain)	-0.43	<0.001*

\* Statistically significant (p < 0.05).

Table 5 - Discriminant construct validity of the IR domain of the P-DUREL in relation to chronic disease, use of medication and practice of religion. Itajubá-MG, 2010 (n = 598)

IR Domain (3 to 15 points)	Presence of chronic disease			Use of medicine			Practice of religion		
	Yes	No	p-value t-test	Yes	No	p-value t-test	Yes	No	p-value t-test
Absolute frequency	190	407	<0.001*	229	368	<0.001*	543	55	<0.001*
Mean	4.36	5.04		4.40	5.09		4.55	7.56	
Median	4.00	4.00		4.00	4.50		4.00	7.00	
Standard deviation	1.91	2.39		2.00	2.38		1.93	3.35	
Minimum value	3.00	3.00		3.00	3.00		3.00	3.00	
Maximum value	15.00	15.00		15.00	15.00		15.00	15.00	

\* Statistically significant (p < 0.05).

Table 6 - Discriminant construct validity of the RI domain of the P-DUREL according to age. Itajubá-MG, 2010 (n = 600)

P- DUREL		Age							p-value
(3 to 15 points)		20 to 29 years	30 to 39 years	40 to 49 years	50 to 59 years	60 to 69 years	70 to 79 years	80 years or more	Anova
IR Domain	N	154	126	120	94	55	33	18	<0.001* (BF) <sup>†</sup>
	Mean	5.72	5.04	4.76	4.23	3.95	4.03	3.39	
	Median	5.00	5.00	4.00	3.00	3.00	3.00	3.00	
	Standard deviation	2.65	2.33	2.03	1.93	1.61	1.45	0.85	
	Minimum value	3.00	3.00	3.00	3.00	3.00	3.00	3.00	
	Maximum value	15.00	15.00	11.00	15.00	10.00	9.00	6.00	

\* Statistically significant (p < 0.05); †Brown-Forsythe adjustment.

The three factors extracted explain together 81.13% of the total variance.

Table 7 - Factorial analysis of the Duke University Religiosity Index (P-DUREL). Itajubá-MG, 2010 (n = 600)

Items	Factor 1	Factor 2	Factor 3
1. How often do you go to a church, temple or other religious meeting?	0.18	<b>0.89</b>	0.25
2. How often do you spend time in private religious activities, such as prayer, meditation, etc.?	0.20	0.25	<b>0.92</b>
3. In my life, I experience the presence of the Divine (or the Holy Spirit).	<b>0.79</b>	-0.07	0.34
4. My religious beliefs are what really lie behind my whole approach to life.	<b>0.81</b>	0.27	0.09
5. I try hard to carry my religion over into all other dealings in life.	<b>0.73</b>	0.45	0.07

At first, we checked the possibility of reducing the dimensionality of the five items, grouping the most correlated items into common factors (domains). For this purpose, the exploratory factorial analysis was performed using the principal component extraction method and a varimax rotation criterion. The criterion for selecting the number of factors was the total of variance explained (eigenvalue), so that the variance was above 70%. This way, three factors explaining a total of 81.13% of the variance were extracted (with two factors, the explanation percentage is 69%). The Kaiser-Meyer-Olkin test (KMO) was also used to evaluate the adequacy of the model. The test presented a value equal to 0.80, indicating high sample adequacy to the factorial analysis performed.

## DISCUSSION

High values of internal consistency were observed in the Portuguese version of the Duke University Religiosity Index (P-DUREL), regarding both general (Cronbach's alpha = 0.74) and the IR domain (Cronbach's alpha = 0.74) consistency. This means that all the items of the religiosity construct are corresponding to their measure, that is, they all integrate it, are part of it. A study conducted with 458 medical patients in the United States found a Cronbach's alpha = 0.75.<sup>20</sup> These findings were also similar to that of another Brazilian P-DUREL validation study with a sample of 383 people living in a low-income region of São Paulo (Cronbach's alpha = 0.73 for the total scale and 0.75 for the RI domain).<sup>15</sup> In another study also performed for the Brazilian validation of the Duke University Religiosity Index (DUREL), Cronbach's alpha coefficients revealed the following results: sample 1 (university students: Medicine and Psychology)  $\alpha = 0.89$ ; Sample 2 (psychiatric outpatient patients)  $\alpha = 0.87$ . For the intrinsic subscale, similar results were found for the sample 1 ( $\alpha = 0.87$ ) and the sample 2 ( $\alpha = 0.81$ ).<sup>13</sup>

In the item-by-item assessment, the Kappa analysis was performed, except for the item "In my life, I experience the presence of the Divine (or the Holy Spirit)", because, in the retest, the "it is true" was not signaled. For the other items, there was agreement between the test and retest. Kappa index values were moderate for the various items (0.30 and 0.39), but there was a statistically significant difference.

When analyzing the other statistical procedures used in this study, the *t-test* (Table 2) detected statistically significant difference between the means in the stability analysis. However, the rest of the data indicate high agreement between the test and retest. In order to assess reliability, Storch *et al.*<sup>21</sup> carried out an study with a sample of 20 university students from the United States, of whom 55% were female and the mean age was 24.7 years (SD = 5). The results confirmed the stability of the scale (test-retest) by the intraclass correlation coefficient = 0.91. Tannay *et al.*<sup>13</sup> presented the following test-retest intraclass correla-

tion coefficients for the final score of each P-DUREL dimension in the sample 1: OR = 0.97; NOR = 0.91; and IR = 0.96. The test-retest reliability was also adequate in the sample 2. The intraclass correlation coefficients for each P-DUREL domain showed the following results: OR = 0.94; NOR = 0.90; and IR = 0.92.

In the present study, the Ferrans and Powers Quality of Life Index (FPQLI) was selected to check the concurrent validity of the fact that religiosity is usually related to measures of quality of life. The RI domain of the P-DUREL was correlated with the FPQLI by means of the Pearson correlation coefficient. All correlations proved to be negative because the score in the Portuguese version of the Duke Religiosity Scale (P-DUREL) indicates that the lower the score, the greater the intrinsic religiosity of the study participants.<sup>14,22</sup>

The correlations between the P-DUREL and the FPQLI were weak but consistent, indicating correlation but not overlap between measured constructs. This data characterizes concurrent validation.

A study conducted in the United States also by Storch *et al.*<sup>23</sup> on the assessment of the psychometric aspects of the Duke, the concurrent validity was checked through correlation between the Duke and the Santa Clara *Strength of Religious Faith Questionnaire – Short Form* (SCSRF-SF). The Pearson correlation coefficient was:  $r = 0.86$  and  $p < 0.001$ .

The convergent construct validation was assessed through the evaluation of the Religious Feeling Measurement Scale. In order to do so, we correlated this scale using the Pearson correlation coefficient with the IR factor of the Portuguese version of the Duke Religiosity Scale (P-DUREL). The correlation obtained was moderate and negative, but with a high statistical significance, which indicates agreement between both variables and, consequently, evidence of convergent validation.

The religiosity of 104 cancer patients (multiple myeloma) who were treated in a bone marrow transplant program and also 175 women undergoing gynecological treatment was studied in the United States. The internal consistency by the Cronbach's alpha reached, in each of those samples, values of 0.94 and 0.87, respectively. The convergent validity of the Duke was analyzed through its correlation with several scales. Considering the cancer and gynecology patients analyzed separately, higher correlations were found between the *Intrinsic Religious Motivation Scale* (IRMS) with the total Duke (0.79 and 0.81, respectively) and the Duke IR dimension (0.84 and 0.81, respectively). In all these correlations the p values were  $< 0.001$ .<sup>24</sup>

In order to carry out the discriminant validation, which allows for the distinction between the sample members, among whom some difference is expected, the Portuguese version of the Duke University Religiosity Index (P-DUREL) was compared, specifically the IR domain, with the following variables: religious practice, chronic illness, use of medications, and age group.

Regarding religious practice, people who did not practice religion had, on average, a lower RI than those who practice. As for chronic diseases, it was noted that there was a statistically significant difference between people with and without chronic disease. The results showed that people with chronic diseases presented, on average, better IR than those without chronic diseases. Regarding the use of medication, a statistically significant difference was detected between people who took and those who did not take medications. The data showed that people who did not use medications had, on average, lower IR than those who used them. Regarding age group, older people presented a better level of intrinsic religiosity, that is, a better level of religiosity, when compared with the others. These data suggest adequate discriminant validity for the P-DUREL.

Taunay *et al.*<sup>13</sup> highlighted weak but significant correlations between depressive symptoms in NOR and IR only in the sample 1, of university students. These data suggest adequate discriminant validity for the P-DUREL.

In the scope of the collective health research, the adequacy of the *Duke University Religiosity Index* (DUREL) was analyzed by assessing the psychometric capabilities of the instrument when applied to a representative population of users of primary health care services in a medium-sized municipality in the interior of the state of São Paulo. Adequate convergent-discriminant validity was found.

In the present study, a factorial analysis of main components was also carried out with the purpose of verifying the possibility of reducing the dimensionality of the data, grouping the most correlated items into factors (domains). The results allowed inferring that the factors formed by the factorial analysis are similar to the original ones.

In a study in which two samples of university students from the United States were evaluated, the first one composed of 628 and the second of 243 participants, two types of factorial analysis were carried out, the first being called exploratory and the second, confirmatory. The exploratory factorial analysis found that the *Scree plot* clearly obtained 76.24% of variance. With this factorial analysis, the Duke Scale formed five factors. In the exploratory factorial analysis using *Confirmatory Factor Analysis* (CFA) equation, three factors were obtained, which definitively constituted the current scale. The Kaiser-Meyer-Olkin test (KMO) was also used to evaluate if the model was adequate, with a value of 0.86.<sup>23</sup>

In a review study addressing the DUREL and its psychometric properties in works already done with it, the following results were found: the total scale presented very high test-retest reliability (intraclass correlation = 0.91); high internal consistencies (Cronbach's alpha = 0.78 to 0.91); and high convergent validity with other measures of religiosity ( $r = 0.71$  to 0.86). The factorial structure has already been demonstrated

and confirmed, separately, in other studies. This instrument has already been used in more than 100 publications and is available in 10 languages.<sup>12</sup>

The present investigation had the limitation of being restricted to people residing in a city of the south of Minas Gerais. The investigation of the psychometric properties in other realities and with other religious diversifications is recommended, as the sample of this study does not represent the totality of the Brazilian population, in all its aspects. However, it is important to point out that, in addition to this research, two other validations of this scale have already been carried out, as well as an investigation of the psychometric properties of *Duke University Religiosity Index* in the scope of research in Collective Health (respectively). The samples with their respective members in these studies were: 383 adults with low income living in the suburbs of São Paulo; 436 participants distributed in two subsamples: 323 university students (135 Psychology students and 188 Medical students) and 113 patients assisted at a general psychiatry outpatient clinic in the city of Fortaleza, Ceará. In the study conducted in Ribeirão Preto, the sample size was 605 residents of Ribeirão Preto-SP, users of health units in the city. The results obtained in the present investigation suggest that the use of the P-DUREL is not restricted to persons in mental health, and that its use may bring new perspectives to the understanding of events of interest related to collective health.

It can be inferred from this information that the P-DUREL was validated in three different states and with very similar results, including in the area of collective health, living in the central areas and suburbs of São Paulo, thus guaranteeing its reliability and validity.

## CONCLUSIONS

The P-DUREL encompasses representative dimensions of the construct that it intends to measure, with items formulated in a short, simple and comprehensible form. The instrument proved to be reliable and valid in its Portuguese version (P-DUREL) with satisfactory reliability characteristics regarding internal consistency and stability (test and retest measures), as well as concurrent criterion validity and convergent and discriminant validity. This is the third validation study of the P-DUREL in the Brazilian population. This information allows us to recommend it for the measurement of the concept of religiosity in Brazilian context.

The present scale has the potential to assume a preponderant role in the study of religiosity in Brazil. It can be used in research contexts, in clinical situations and, specifically, in the nursing care process. This is an auxiliary diagnostic and care instrument, involving health professionals in a multiprofessional and interdisciplinary extension.

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