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Weber, Marcela C.; Furman, Hernán; Schulenberg, Stefan E.

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PSOCIAL, vol. 8, núm. 1, 2022

Universidad de Buenos Aires, Argentina

Disponible en: <https://www.redalyc.org/articulo.oa?id=672371222012>

A Spanish Adaptation and Validation of the Purpose in Life Test – Short Form (PIL-SF)

Adaptación y Validación al español del Test Breve de Propósito en la Vida (PIL Breve)

Marcela C. Weber

*Central Arkansas Veterans Affairs Healthcare System,
Estados Unidos de América
University of Arkansas for Medical Sciences, Estados Unidos
de América*

marcela.c.weber@gmail.com

 <https://orcid.org/0000-0003-1650-9074>

Redalyc: <https://www.redalyc.org/articulo.oa?id=672371222012>


Hernán Furman

Universidad de Flores, Argentina

 <https://orcid.org/0000-0001-5597-3174>

Stefan E. Schulenberg

University of Mississippi, Estados Unidos de América

 <https://orcid.org/0000-0003-3235-7525>

Recepción: 20 Mayo 2022
Aprobación: 23 Junio 2022

ABSTRACT:

The distinction between meaning and purpose in life remains an ongoing debate in the empirical and theoretical literature; even so, there is general consensus in defining purpose in life as goal-directedness towards living a more meaningful life. Scales measuring this goal-directedness, specifically, rather than broad measures of meaning, are necessary to further this vein of research. The Purpose in Life Test (PIL), developed by Crumbaugh and Maholick in the 1960s, has been shown to be a valid instrument for measuring meaning and purpose. Four of the 20 items composing the PIL comprise the English Purpose in Life Test-Short Form (PIL-SF; Schulenberg et al., 2011), which have demonstrated greater internal coherence and greater precision for evaluating goal-directed purpose in life, specifically. This study aimed to evaluate the reliability and factor structure of the Spanish PIL-SF. This validation involved two different samples of university students: sample A (N = 368) and sample B (N = 336). Confirmatory factor analysis (CFA) supported a 1-factor model, and reliability of the items was excellent. Results suggest that the Spanish PIL-SF is a valid and reliable measure of purpose in life, comparable to the English language PIL-SF.

KEYWORDS: purpose in life, meaning, psychological well-being, validation, psychometrics.

RESUMEN:

Distinguir entre sentido y propósito en la vida, sigue siendo un debate filosófico y empírico en la literatura especializada. El direccionamiento a las metas para vivir una vida más significativa y existencial parece ser una de las características distintivas del propósito. Para desarrollarse, esta línea investigativa necesita cuestionarios que midan específicamente la orientación a las metas, en lugar de la mera asignación de sentido y/o significado. El Purpose in Life Test (PIL), desarrollado por Crumbaugh y Maholick en la década de 1960, ha demostrado ser un instrumento válido para medir significado y propósito. Recientemente se observó que 4 de sus 20 ítems informaron mayor coherencia interna y mayor precisión para evaluar la orientación a la meta como característica del propósito. Estos hallazgos derivaron en una versión abreviada de la técnica denominada Purpose in Life Test Short Form (PIL-SF; Schulenberg et al., 2011). El presente estudio tuvo como objetivo evaluar la confiabilidad y la estructura factorial del PIL-SF en el contexto argentino. Esta validación involucró dos muestras diferentes de estudiantes universitarios: muestra A (N = 368) y muestra B (N = 336). El análisis factorial confirmatorio (CFA) apoyó un modelo unifactorial y la confiabilidad de los ítems fue excelente. Los resultados sugieren que el PIL-SF en español es una medida válida y confiable del propósito en la vida, comparable al PIL-SF en inglés.

PALABRAS CLAVE: propósito en la vida, sentido en la vida, bienestar psicológico, validación, psicometría.

A SPANISH ADAPTATION AND VALIDATION OF THE PURPOSE IN LIFE TEST – SHORT FORM (PIL-SF)

William Damon has reflected that purpose in life is as old as the first person who questioned the reason for their existence (forward, Bronk, 2014), and there is consensus in the field that purpose in life is an important predictor of physical and psychological well-being (Bronk, 2014). Psychiatrist Viktor Frankl introduced the construct to the social sciences (2006), as a result of his experiences finding meaning in life while imprisoned in Nazi concentration camps during the Holocaust (Bronk, 2014; Schimmoeller & Rothhaar, 2021). Contemporary definitions of purpose in life define it as “a stable and generalized intention to accomplish something that is at once meaningful to the self and of consequence to the world beyond the self” (Damon et al., 2003, p. 121). Purpose differs from goal orientation or goal-directedness in that purpose refers to goal directedness towards meaningful life goals (Damon, 2008); it is transcendental (Bronk, 2011, 2014).

Throughout his work, Frankl used the terms “purpose” and “meaning” interchangeably (see, for example, Frankl, 2006, 1966), and this undifferentiated use has remained common in the literature (Crumbaugh, 1968; Fernández-Navarro et al., 2020; McKnight & Kashdan, 2009; Schimmoeller & Rothhaar, 2021; Steger et al., 2006). Further, the terms “eudaimonia” and “eudemonic” are frequently used to refer to either or both purpose and meaning (e.g., Ryff, 2014; Steger et al., 2006). However, contemporary theory on meaning and purpose has fallen into two camps: (1) that purpose is a component of meaning or (2) that meaning is a component of purpose. Bronk and colleagues hold that meaning as an element of purpose, because purpose implies an intention to act in the service of one’s values or what makes one’s life meaningful (Bronk, 2012; Bronk et al., 2009; Damon et al., 2003). This perspective, that meaning is a component of purpose, aligns with the work of Carol Ryff, who defines purpose as the ability to find meaning and direction in life (Schaefer et al., 2013).

On the other hand, Michael Steger, Crystal Park, and their colleagues theorize that meaning is central. While Steger and colleagues did not differentiate meaning and purpose when developing the popular Meaning in Life Questionnaire in 2006, Martela and Steger (2016) have since theorized that purpose, coherence, and significance are the three domains that comprise meaning. Likewise, in Park’s meaning-making model for recovery from trauma and stress, both purpose and significance comprise meaning (Park & Blake, 2020; Park et al., 2017). Ultimately, both theoretical perspectives concur that purpose entails goal-directed actions, aims, and striving to live a more meaningful life. There is consensus that purpose and meaning in life are intimately intertwined and that differentiating them is a complex task.

In this regard, it must be noted that in the Spanish-speaking literature, few, if any, papers have attempted to disambiguate the two constructs of meaning in life, or “el sentido de la vida,” and purpose in life, or “el propósito de la vida.” Martínez Ortiz et al. (2011) built and validated a Latin American self-report measure, La Escala Dimensional del Sentido de Vida (“The Dimensional Meaning in Life Scale”). The theoretical basis for this scale development holds that there are two components to meaning in life. Meaning includes a more abstract component, significance, and a more concrete component, purpose. The abstract component entails the existential assessment that an individual makes about the significance of their own life and their place in the world. The concrete component includes setting meaningful goals, purposeful actions, and identity development. Thus, for Martínez Ortiz and colleagues, purpose is a component of meaning. Meanwhile, one of the only other Spanish language measures of meaning or purpose is the Test de Propósito en la Vida, which was validated with an Argentine population (“Purpose in Life Test” or “PIL”; Simkin et al., 2018). It was developed from the theoretical lens shared with Bronk, Damon, and their colleagues, that meaning is a component of purpose. In this study and here onward in this paper, we define purpose according to the definition as stated above (Damon et al., 2003, p. 121), and consider meaning to be an overlapping construct.

Frequently, meaning in life and spirituality are linked in the literature, and spirituality is often conceptualized as a way to find meaning in life (Park et al., 2017). Purpose in life and spirituality are often significantly correlated (Furrow et al., 2004; Tirri & Quinn, 2010), yet coherence is an aspect of meaning in life that most directly straddles current experts' definitions of spirituality, so much so that coherence is frequently incorporated into definitions and measures of spirituality (Piedmont, 2010, 2012) or spiritual growth (Tedeschi & Calhoun, 2004; Tedeschi et al., 2017). In the social science literature, spirituality is defined as searching for or practicing connections to God, a higher power, or "other aspects of life that are perceived to be manifestations of the divine or imbued with divine-like qualities, such as transcendence, immanence, boundlessness, and ultimacy" (Pargament et al., 2013, p. 7). Religion or religiosity is defined as spirituality "within the context of established institutions that are designed to facilitate spirituality" (Pargament et al., 2013, p. 15). Although purpose in life may enhance or strengthen one's spirituality or engagement in religious practices (Van Tongeren et al., 2020), a limitation of broad measures of meaning in life or existentialism is that they do not sufficiently distinguish the construct of purpose. A scale measuring purpose, specifically, would be expected to correlate significantly with spirituality and wellbeing, but not so highly that measurement of these constructs is indistinguishable.

Purpose from a Wellness Perspective

Purpose holds an important place in the research on wellness, including the areas of prevention/health promotion, resilience, and psychological wellbeing. On one hand, purpose in life is an important predictor of mental health and psychological well-being (Bronk, 2014). In Carol Ryff's foundational studies of wellbeing (1989) and her current work (2018), purpose is a component of psychological wellbeing. Likewise, purpose and meaning are central to theoretical models and empirical studies of psychological well-being (Li et al., 2021) and resilience (for reviews, see Bonanno, 2021; Grych et al., 2015). Similarly, purpose is consistently positively correlated with life satisfaction (Heng et al., 2020; Leria-Dulčić & Salgado-Roa, 2019; Schulenberg & Melton, 2010).

Furthermore, an absence of purpose in life has been linked to hopelessness and existential frustration or emptiness (Huamaní & Ccori, 2016; Schimmoeller & Rothhaar, 2021). There is a general consensus that a lack of purpose is associated with mental health problems including depression and suicidality (Heisel & Flett, 2004; Laird et al., 2019; Nkyi & Ninnoni, 2020; Straus et al., 2019; Sutin et al., 2018), and even a risk factor for mortality in older adults (Boyle et al., 2009; Hill & Turiano, 2014; Krause, 2009; Pinquart, 2002). In sum, across numerous studies, purpose in life is a protective factor for physical and psychological wellness, and a lack of purpose is a risk factor for worse mental health.

Measuring Purpose

Various self-report scales have been developed to measure purpose, and one of the most widely used is the Purpose in Life Test (PIL), developed by Crumbaugh and Maholick (1964). Different versions and adaptations of this instrument have been developed and used in a variety of contexts including Latin America (Hayashi & Tiekko Esmerelles, 2018; Martínez Ochoa et al., 2018; Martínez Ortiz et al., 2012; Nascimento & Dias, 2019; Simkin et al., 2018), North America (Bonebright et al., 2000; Durant et al., 1995; Jackson & Coursey, 1988; Schulenberg & Melton, 2010), Europe (Brunelli et al., 2012; Garcia-Alandete et al., 2013; Haugan & Moksnes, 2013; Jonson et al., 2010; Konkoly & Martos, 2006), Asia (Chang & Dodder, 1983; Kim et al., 2001; Law, 2012; Okado, 1998; Shek, 1993), Africa (Stones & Philbrick, 1980), and Oceania (Dyck, 1987; Marsh et al., 2003).

Various researchers have proposed modifications to the number of items in the instrument. Originally, Marsh et al. (2003) suggested the elimination of three of the scale's twenty original items, on the basis that these items did not seem to contribute significantly to the scale. Law (2012) proposed retaining only seven items to measure the existential aspect of purpose, specifically. In 2010, Schulenberg and Melton concluded that many of the items on the original 20-item PIL did not measure purpose, but rather other constructs such as depression and boredom. Rigorous factor-analytic methodology identified three items that loaded extremely well together, and the fourth item was included on the basis of face validity and improved psychometrics (Schulenberg & Melton, 2010; Schulenberg et al., 2011). On this basis, the PIL-SF was developed, retaining items 3, 4, 8, and 20 from the original scale (Appendix; Schulenberg & Melton, 2010; Schulenberg et al., 2011).

The PIL-SF (Schulenberg et al., 2011) has consistently, inversely predicted forms of psychopathology, such as depression, substance use, and posttraumatic stress. Likewise, the PIL-SF positively predicts resilience and life satisfaction. The PIL-SF differentiates the specific aspect of the construct that is progress towards meaningful goals, whereas other English and Spanish instruments often lack this specificity. For example, the PIL-SF measures a different construct than the Meaning in Life Questionnaire (MLQ; Steger et al., 2006). In both the five-item English version (Steger et al., 2006) and a three-item Spanish version that was developed in Chile (Steger & Samman, 2012), the MLQ – Presence of Meaning subscale assesses current meaning and purpose in life. The distinction is that the PIL-SF specifically assesses the goal-directed aspect of purpose, whereas the MLQ – Presence subscale does not. Another measure of meaning and purpose that has been translated to Spanish is the Schedule for Meaning in Life Evaluation (SMiLE; Monforte-Royo et al., 2011). This questionnaire identifies a person's primary sources of meaning, rather than the extent to which they perceive they currently have a purpose in life. Finally, the 20-item PIL has already been shown to be distinct from the Spanish language Seeking of Noetic Goals test (SONG), in that the PIL measures current presence of meaning and purpose while the SONG measures search for meaning (García-Alandete et al., 2018). Therefore, the PIL-SF is unique among Spanish language scales: it specifically measures goal-oriented purpose in life.

The Present Study

Even though various studies have supported the factorial structure of the Purpose in Life Test – Short Form proposed by Schulenberg et al. (2011) in such diverse contexts as the United States (Schulenberg et al., 2011) and China (Law, 2012; Wang et al., 2016), the psychometric properties of the Spanish-language version have not yet been evaluated. For this reason, the present study aimed to evaluate the reliability, factor structure, convergent validity, and discriminant validity of the Spanish PIL-SF. We hypothesized the following. (1) The PIL-SF would have adequate internal consistency. (2) The PIL-SF would have a one-factor structure. (3) There would be small to modest significant correlations between the PIL-SF and measures of wellbeing and spirituality. (4) There would be significant inverse correlations between the PIL-SF and measures of negative affect including depression and anxiety.

METHOD

Participants

Sample A was comprised of 368 university students from Buenos Aires. Participants were adults ages 19 to 35 ($M = 23.88$; $SD = 3.57$), both men (23.3%) and women (77.7%). Sample B was comprised also by

university students (N=336). Participants in Sample B were men (25.6%), women (74.1%), and other/non-binary (0.3%), and ranged in age from 19 to 55 years (M =25.09, SD = 5.97).

Measures

The Purpose in Life Test

The original Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964) is a 20-item self-report scale designed to measure one's purpose in life. While English translations are provided for example items and anchor descriptions, the Spanish language version was used in the present study, which was previously validated with an Argentine population (Simkin et al., 2018). The Spanish translation was developed following the standard international methods recommended by the International Test Commission (ITC) for the validation of psychological assessments in different cultures (Muñiz et al., 2013). In order to comply with the ITC recommendations, items were not translated literally; they were translated such that the psychological meaning of each one was maintained (Simkin et al., 2018). According to Simkin et al. (2018), each item and descriptor were translated to Spanish, then three independent translators back-translated and compared these to the original scale by Crumbaugh and Maholick.

An example of an item is “When I think about my life:”/“Al pensar en mi vida:”. Response options are on a Likert-type scale ranging from 1 to 7, with descriptions for the 1 and 7 anchors that vary by item. For the aforementioned example item, anchor descriptors are 1 - *I often ask myself why I exist.Me pregunto a menudo por qué existo* and 7 - *I always find reasons to live/Siempre veo una razón por la que estoy aquí*. Responses are summed and total scores range from 20 to 140, with higher scores indicating greater perceived purpose in life.

As explained in the introduction, prior studies have found that many items in the PIL appear to measure constructs other than meaning or purpose, such as depression and boredom (Law, 2012; Schulenberg & Melton, 2010). Furthermore, a confirmatory factor analysis by Marsh et al. (2003) found that three items do not load onto the overall purpose factor. Despite poorer model fit for our sample and the issues reported in the literature, the PIL was included in this study for the purpose of comparing the psychometric properties of the short form when embedded in the PIL.

The Purpose in Life Test – Short Form

The Purpose in Life Test – Short Form (PIL-SF; Schulenberg et al., 2011; Appendix) is a self-administrated questionnaire comprised of four items that evaluate purpose in life with relevance to adolescent and adult populations. While English translations are provided for example items and anchor descriptions, the Spanish language version was used in the present study. Items are summed, with total scores ranging from 4 to 28. Higher scores indicate greater perceived current purpose in life.

The items used were analogous to those in the English PIL-SF, with the same wording maintained from the 20-item Spanish PIL that was adapted with an Argentine population (Appendix; Simkin et al., 2018). Studies of the English PIL-SF have reported good internal consistency statistics ranging from $\alpha = .83$ (Schulenberg et al., 2014) to $\alpha = .86$ (Schulenberg et al., 2011). Psychometric properties of this study are described in the results.

Spirituality

Spirituality was assessed with two subscales of the Spiritual Transcendence index from The Assessment of Spirituality and Religious Sentiments Scale (ASPIRES; Piedmont, 2012; Piedmont et al., 2008). The ASPIRES is a 35-item self-report questionnaire with two indices, Spiritual Transcendence and Religious Sentiments. The Spanish language version was used in the present study, which was previously validated with an Argentine population (Simkin & Piedmont, 2018). This translation and validation was in accord with the standards of the International Testing Commission (ITC) for the validation of psychological assessments in different cultures (Muñiz & Hambleton, 2000; Muñiz et al., 2013). Only the Spiritual Connectedness and Spiritual Universality subscales were used in the present study, as these constructs are closely tied to meaning and purpose in the literature (e.g., Park et al., 2017). Universality measures “the belief that there is a broader sense of life than we know” (Simkin & Piedmont, 2018, p. 100). An example Universality item is “I feel that on a higher level all of us share a common bond”/“Siento que en un nivel superior todos compartimos un vínculo común”. Connectedness measures “the feeling of belonging to a transcendent reality that crosses different groups and generations” (Simkin & Piedmont, 2018, p. 100). An example Connectedness item is “Although dead, memories and thoughts of some of my relatives continue to influence my current life.”/“Aunque ya fallecidos, recuerdos y pensamientos de algunos de mis parientes continúan influenciando mi vida actual”. Responses are on a Likert-type scale ranging from 1 – Never/Nunca to 7 – Several times a week/Varias veces por semana. Items 5 and 6 are reverse scored, then items are summed, with sum scores ranging from 9 to 63. Higher scores indicate greater perceived spirituality.

In the present study, with Sample B, internal consistency was acceptable for the Universality subscale ($\alpha = .65$), and Connectedness subscale ($\alpha = .64$; interpretations of all α values in this study based on DeVellis, 2003). In the aforementioned study to develop the Spanish ASPIRES-SF, internal consistency was acceptable to excellent, α 's = .77-.92.

Satisfaction With Life

The Satisfaction With Life Scale (SWLS; Diener et al., 1985) is a five-item self-administered questionnaire that measures satisfaction with life (e.g., “The conditions of my life are excellent”/“Las condiciones de mi vida son excelentes”). Responses are given via a Likert-type scale with seven anchors ranging from 1 – Strongly disagree/Fuertemente en desacuerdo to 7 – Strongly agree/Fuertemente de acuerdo. For the purposes of the present study, the version validated and adapted to the Argentine context was used, which had adequate internal consistency in the Argentine psychometric study ($\alpha = 0.75$; Moyano et al., 2013). In the current sample, the SWLS demonstrated the same adequate internal consistency ($\alpha = 0.75$).

Positive and Negative Affect

The Affect Balance Scale (ABS; Warr et al., 1983) is an 18-item self-administered questionnaire measuring both positive (e.g., “Have you felt very happy?”/“¿Te has sentido muy alegre?”) and negative (e.g., “Have you felt like crying?”/“¿Te has sentido con ganas de llorar?”) affective experiences. Responses are given via a Likert-type scale with five anchors ranging from 1 – Never/Nunca to 5 – Frequently/Frecuentemente. For the purpose of the present study, the version validated and adapted to the Argentine context by Simkin et al. (2016) was used, which had adequate internal consistency ($\alpha_{\text{POSITIVE}} = 0.77$, $\alpha_{\text{NEGATIVE}} = 0.86$) in the Argentine validation study. In the current sample, the ABS had also adequate internal consistency ($\alpha_{\text{POSITIVE}} = 0.81$, $\alpha_{\text{NEGATIVE}} = 0.74$).

Anxiety and Depression

The NEO Personality - Revised (NEO PI-R; Costa & McCrae, 1992) is a self-administered 240-item questionnaire designed for use with adolescents and adults. The NEO PI-R measures five dimensions of personality: Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. Each dimension of the NEO PI-R has six subfacets, which include anxiety and depression. Only the subscales for anxiety and depression were used in the present study. An example of an anxiety item is “I am easily frightened” / “Me asusto fácilmente.” An example of a depression item is “Sometimes I have a strong feeling of guilt and sinfulness” / “A veces he experimentado un profundo sentimiento de culpa o pecado.” Response options are on a Likert-type scale ranging from 1 – Strongly disagree/Fuertemente en desacuerdo to 5 – Strongly agree/Fuertemente de acuerdo. The present study used the Spanish version adapted and validated in the Argentine context (Richaud de Minzi et al., 2001). With the present Sample B, internal consistency was α ANXIETY = 0.65, α DEPRESSION = 0.79.

Procedure

All data were collected through anonymous self-report survey questionnaires. For Samples A and B, participants were recruited via a link to the online survey that was distributed on social networks. Participation was voluntary, without compensation, and informed consent was obtained digitally before the surveys began. In the instructions, they were informed that their survey responses were anonymous and that the data obtained from the study would be used exclusively for scientific ends under Argentine National Law 25,326 protecting participants’ personal information and respecting their anonymity. No measure translation was conducted for this study, as all measures had previously been translated. The questionnaire for Sample A was composed of the Purpose in Life Test – Short Form (PIL-SF) and a sociodemographic questionnaire. Sample B was part of a larger study containing several questionnaires including the full form of the Purpose in Life Test (PIL), the ASPIRES short form, the NEO PI-R, the EBA, a sociodemographic questionnaire, and other questionnaires.

Data analysis

First, the internal consistency of the PIL-SF was analyzed utilizing the omega coefficient (interpretation based on Dunn et al., 2014) and Cronbach’s alpha coefficient (interpretation based on DeVellis, 2003). Second, confirmatory factor analysis (CFA) with maximum likelihood (ML) estimation was conducted to assess construct validity, in accord with recommendations from Jackson et al. (2009). The ML method was used for pairwise deletion of missing values. The model was later evaluated with the goodness-of-fit indices χ^2 , the Comparative Fit Index (CFI), the Tucker-Lewis Index/Non-Normed Fit Index (TLI/NNFI), the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Residual (SRMR), following recommendations from Hooper et al. (2008). The CFA was conducted with the *lavaan* package in R 3.3.4/RStudio, and all other statistical analyses of the data were performed using SPSS 27.

RESULTS

Internal Consistency

As shown in Table 1, McDonald's omega for the PIL-SF was adequate for Samples A and B (based on cutoffs from Dunn et al., 2014; Green & Yang, 2015). Internal consistency calculated with Cronbach's alpha was also adequate for the PIL-SF with both samples (based on cutoffs from DeVellis, 2003). Across administrations for Samples A and B, the PIL-SF means, standard deviations, and alpha coefficients were similar.

Table 1

Scale	<i>M</i>	<i>SD</i>	Skew (SE)	Kurtosis (SE)	α	ω
PIL-SF, independent administration with Sample A*	20.91	4.68	-0.892 (0.127)	0.777 (0.254)	.793	.798
PIL-SF, embedded in long form with Sample B**	22.33	4.08	-0.554 (0.133)	1.176 (0.265)	.771	.775
PIL (20 items) with Sample B**	99.40	15.60	-1.213 (0.133)	1.831 (0.265)	.851	.878

Descriptive Statistics for Versions of the Purpose In Life Test and its Short Form

Notes. PIL = Purpose in Life Test, Spanish adaptation. PIL-SF = Purpose in Life Test Short Form, Spanish adaptation.

* Sample A (independent administration) N = 368.

** Sample B (embedded administration) N = 336.

Confirmatory Factor Analysis

As shown in Table 2, the model demonstrated excellent fit for a 1-factor model by the indices calculated. When administered both independently (Sample A) and embedded in the long form (Sample B), the PIL-SF fit was above the cutoff for the CFI and the Tucker-Lewis Index TLI, within recommended range for the RMSEA and RMSEA confidence interval (both were close to zero), and below the cutoff for SRMR (cutoffs from Hooper et al., 2008). For the long form of the PIL, fit statistics were inadequate, or outside of conventional cutoffs, for three of the indices that have conventional cutoffs (χ^2 , CFI, TLI). The RMSEA and SRMR had acceptable fit for the long form, but poorer fit than the PIL-SF did on these indices. As shown in the structural model for Sample A (Figure 1) and Sample B (Figure 2), all four PIL-SF items loaded well onto the overall factor.

Table 2

Fit statistic	PIL-SF independent administration* (Figure 1)	PIL-SF embedded administration** (Figure 2)	PIL **	Cutoff for an acceptable fit†
χ^2	2.01	0.66	446.60	< 5
CFI	1.00	1.00	0.860	≥ .95
TLI/NNFI	1.00	1.01	0.844	≥ .95
RMSEA [90% CI]	0.004 [0.001, 0.103]	0.000 [-0.001, 0.001]	0.070 [0.062, 0.077]	< .08 or close to 0
SRMR	.011	0.006	0.054	< .05

Confirmatory Factor Analysis of Purpose in Life Test and its Short Form

Notes. PIL = Purpose in Life Test, Spanish adaptation. PIL-SF = Purpose in Life Test Short Form, Spanish adaptation. CFI = Comparative Fit Index, TLI = Tucker-Lewis Index/Non-Normed Fit Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean Square Residual (SRMR).

* Sample A (independent administration) N = 368.

** Sample B (embedded administration) N = 336.

† Cutoffs for acceptable model fit are from Hooper et al. (2008).

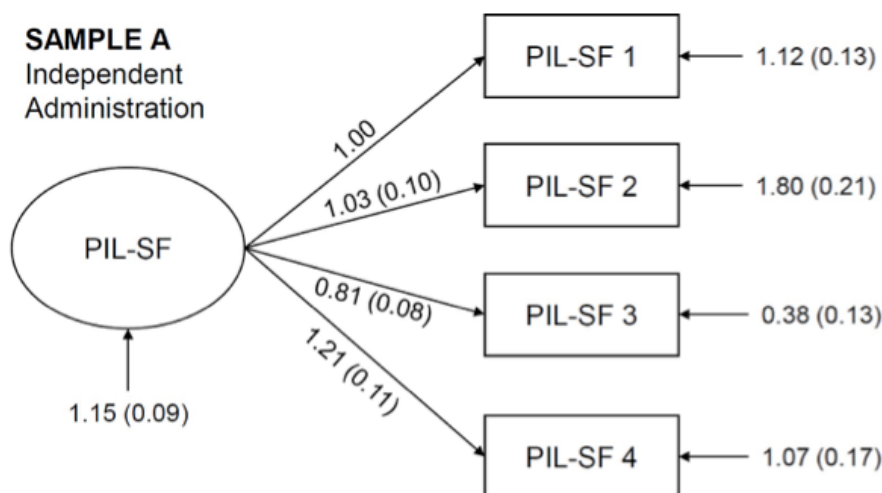


Figure 1

Structural model of the PIL-SF using Sample A data. Path coefficients are standardized. Standard errors are shown in parentheses. N = 368.

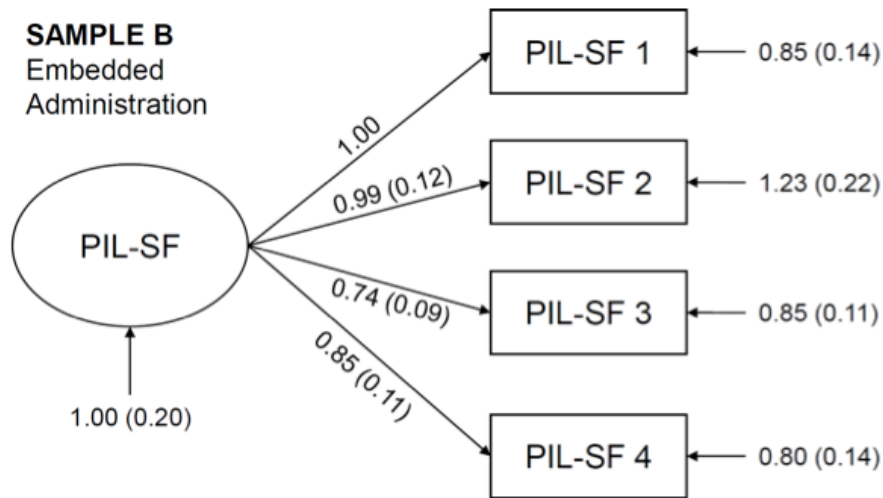


Figure 2

Structural model of the PIL-SF using Sample B data. Path coefficients are standardized. Standard errors are shown in parentheses. N = 336.

Item-Level Correlations

For Sample A, Pearson correlations of each item with the other items in the independently administered PIL-SF were acceptable, $0.38 < r < 0.62$, all p 's $< .001$ (Kline, 2005). For Sample B, Pearson correlations of each item with the other items in the PIL-SF as embedded in the long form were also acceptable, $0.42 < r < 0.51$, all p 's $< .001$ (Kline, 2005).

Correlations with Other Scales

As shown in Table 3, with Sample B, bivariate Pearson correlations were computed between the PIL, PIL-SF, and the measures of wellbeing (Satisfaction with Life Scale (SWLS), EBA Positive), negative emotions (EBA Negative, NEO PI-R Anxiety, NEO PI-R Depression), and spirituality (ASPIRES Connectedness and Universality subscales). The PIL-SF and PIL were strongly correlated with each other. Both the PIL and PIL-SF had similar correlation coefficients indicating moderate, significant, positive correlations with satisfaction with life and positive emotionality. Both the PIL and PIL-SF had similar correlation coefficients indicating significant correlations with negative emotionality (weak) and depression (moderate). The PIL was significantly correlated with anxiety but the PIL-SF was not. Both the PIL and PIL-SF were weakly, significantly, positively correlated with spiritual connectedness. Only the PIL-SF was significantly and positively, albeit weakly, correlated with universality.

Table 3

Scale	Statistic	PIL-SF embedded in long form with Sample B	PIL (20 items) With Sample B
PIL-SF embedded in long form with Sample B	<i>r</i>	1	
	<i>p</i>		
PIL (20 items) With Sample B	<i>r</i>	.790***	1
	<i>p</i>	<.001	
Satisfaction with Life Scale	<i>r</i>	.452***	.505***
	<i>p</i>	<.001	<.001
EBA Positive Emotionality	<i>r</i>	.405***	.458***
	<i>p</i>	<.001	<.001
EBA Negative Emotionality	<i>r</i>	-.143**	-.269***
	<i>p</i>	.009	<.001
NEO PI-R Anxiety Subscale	<i>r</i>	-.106	-.212***
	<i>p</i>	.051	<.001
NEO PI-R Depression Subscale	<i>r</i>	-.397***	-.493***
	<i>p</i>	<.001	<.001
ASPIRES Spiritual Connectedness	<i>r</i>	.132*	.119*
	<i>p</i>	.015	.029
ASPIRES Spiritual Universality	<i>r</i>	.122*	.072
	<i>p</i>	.025	.190

Bivariate Pearson correlations of the Purpose in Life Test Short Form with other scales
 Notes PIL = Purpose in Life Test, Spanish adaptation. PIL-SF = Purpose in Life Test Short Form,
 Spanish adaptation. EBA = Affect Balance Scale, Spanish adaptation. NEO PI-R = Neuroticism,
 Extraversion, Openness to experience Personality Inventory – Revised, Spanish adaptation. ASPIRES-
 SF = Assessment of Spirituality and Religious Sentiments - Short Form, Spanish adaptation. N = 336.

DISCUSSION

In summary, based on the results of the present study, the Spanish language version of the Purpose in Life Test - Short Form appears to have acceptable psychometric properties for use with Argentine adults. The present study provides initial and compelling support for a brief, valid, and reliable self-report scale for measuring purpose in life among Spanish-speaking populations.

Measurement of purpose with Spanish-speaking populations is important for several reasons. First, Spanish speakers are underrepresented in psychological wellbeing research and even more so in studies of meaning and purpose (Kim et al., 2018). Secondly, while qualitative studies of purpose with Latin American and Spanish-speaking populations are important (Romero & Umaña-Taylor, 2018), brief, quantitative measures of purpose are vital to further this area of study. Lastly, considering the heterogeneous adversities faced by Latin Americans, research on health-promoting factors, like purpose, is necessary to build psychological and community resilience.

Reliability

The present study found good internal consistency for both the short and long forms, as calculated by both coefficients alpha and omega. Both coefficients were included due to alpha's enduring popularity, despite criticism in the statistical literature (McNeish, 2018), and because omega is not yet common enough to be useful for comparing to other, similar scales. The reliability of this Spanish version of the PIL-SF is similar to reliability statistics reported by other studies of the PIL-SF in other countries (Law, 2012; Schulenberg et al., 2011).

Factor Structure

In the present study, the CFA for the PIL-SF supported a unidimensional model. This corroborates findings from the original English language version of the PIL-SF, which also has a one-factor structure (Schulenberg et al., 2011). The original developmental work on the English-language version of the PIL-SF (Schulenberg & Melton, 2010; Schulenberg et al., 2011) concluded that, because many of the original PIL items do not load onto the overall Purpose factor, the PIL-SF was a more parsimonious, precise way to measure purpose in life than the 20-item scale. Our findings of superior fit indices (CFI, TLI) for the PIL-SF compared to the PIL corroborate the English PIL/PIL-SF studies; the PIL-SF does indeed appear to be a more parsimonious measure of purpose in life.

Convergent and Discriminant Validity

Convergent validity was demonstrated for the PIL-SF through its positive associations with scales of wellbeing, spirituality, and the PIL long form. Positive and moderate correlations were found between purpose and both satisfaction with life and positive affect. Purpose is often considered a component of psychological wellbeing, alongside life satisfaction and positive affect (Ryff, 1989, 2014; Seligman, 2011). Therefore, these correlations support the construct validity of the PIL-SF as a measure of purpose in life. The PIL and PIL-SF were both associated with spiritual connectedness and the PIL-SF was associated with spiritual universality. These elements of spirituality have been closely linked to meaning-making in the theoretical literature (Park et al., 2017). Although we hypothesized a larger correlation between the PIL-SF and the spirituality scales, the weak correlations suggest that the PIL-SF is a sufficiently precise measure of purpose and does not muddle this construct with spirituality. The PIL and PIL-SF are strongly positively correlated. This is unsurprising for a scale nested within another scale, and would be insufficient on its own to establish the convergent validity of the PIL-SF. However, as an addition to the aforementioned correlations, this corroborates the convergent validity of the PIL-SF as a measure of purpose in life.

In addition to convergent validity with purpose and wellbeing measures, discriminant validity was shown through inverse correlations between the PIL-SF and measures of negative affect. The PIL-SF was moderately, inversely, and significantly correlated with depression; weakly, inversely, and significantly correlated with negative emotionality; and the correlation with anxiety was not significant. Depression, more so than anxiety, has been used to establish construct validity in psychometric work on the English form of the PIL and PIL-SF, in part because hopelessness and despair are more theoretically opposite of purpose than other negative emotions (Frankl, 1956/2006). Therefore, while we hypothesized larger and significant correlations for the PIL-SF and anxiety or general negative affect, our findings nevertheless support the construct validity of the Spanish PIL-SF as a measure of purpose in life.

Limitations and Future Directions

Limitations include that both samples were predominantly female and younger adults. These convenience samples are not representative of the general Argentine population. Further research should be conducted to validate the PIL-SF in other countries with other Spanish-speaking populations around the world. While further research is essential, this initial validation of the Spanish-language PIL-SF for Argentine use is an important step toward developing a psychometrically sound version with international applicability. Researchers working with Spanish speakers of other nationalities or cultures, or with Argentinians from other demographic groups, such as youth, should examine the validity of the Spanish PIL-SF with their population of interest.

Recommendations for Using the PIL-SF

Because the short form demonstrates stronger model fit comparable to the long form, the PIL-SF shows promise as a brief self-reported purpose in life with Spanish-speaking populations. We acknowledge that both the Spanish-speaking literature and broader global literature remains murky with regard to differentiating, classifying, and ordering meaning and purpose. While researchers have yet to reach a consensus as to whether purpose is a component of meaning (Martela & Steger, 2016; Park & Blake, 2020; Park et al., 2017) or whether meaning is an aspect of purpose (e.g., Bronk, 2012; Bronk et al., 2009; Damon et al., 2003; Schaefer et al., 2013), there is consensus in defining purpose as goal-directedness towards meaningful living. A measure of purpose, specifically, is necessary for such future research. Therefore, the Spanish PIL-SF has potential utility in empirical exploration of the differences, similarities, and hierarchy of meaning and purpose. Furthermore, at least three papers in the literature have asserted that some of the PIL items excluded from the PIL-SF seem to measure constructs other than purpose (Law, 2012; Marsh et al., 2003; Schulenberg & Melton, 2010). Therefore, especially when the intent is to measure purpose as a variable distinct from related constructs like meaning or spirituality, researchers should consider the short form to be the most precise option. We recommend that researchers utilize the PIL-SF when assessing the extent to which individuals currently perceive themselves as having purpose in life, or goals and aims towards living meaningfully.

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Appendix

Corresponding items and anchors of the English and Spanish Purpose in Life Test short forms

	The Purpose in Life Test – Short Form (PIL-SF)	El Test Breve de Propósito en la Vida (PIL Breve)
Item number	English item and anchors	Spanish item and anchors
PIL-SF 1 PIL 3	In life I have: 1 – No goals or aims at all 7 – Very clear goals and aims	Para mi vida: 1 – No tengo ninguna meta fija 7 – Tengo metas bien definidas
PIL-SF 2 PIL 4	My personal existence is: 1 – Utterly meaningless without purpose 7 – Very purposeful and meaningful	Mi existencia personal: 1 – No tiene significado 7 – Tiene mucho significado
PIL-SF 3 PIL 8	In achieving life goals I have: 1 – Made no progress whatsoever 7 – Progressed to complete fulfillment	En alcanzar las metas de mi vida: 1 – No he progresado nada 7 - He progresado como para estar completamente satisfecho
PIL-SF 4 PIL 20	I have discovered: 1 – No mission or purpose in life 7 – Clear-cut goals and a satisfying life purpose	Al pensar en mi vida: 1 - No he descubierto ningún propósito o sentido en mi vida 7 - Tengo metas muy bien delimitadas y un sentido de la vida que me satisface

INFORMACIÓN ADICIONAL

Acknowledgements: This paper was financed by the research project 160R07 at the University of Flores. Writing of this manuscript was supported in part by the Office of Academic Affiliations, Advanced Fellowship Program in Mental Illness Research and Treatment, Department of Veterans Affairs. The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the United States government, Department of Veterans Affairs, or the affiliated academic institutions.

Corresponding Author: For more information, please contact Dr. Marcela Weber. Para más información, por favor contacte con la Dra. Marcela Weber.