

A Replication of the Reker and Cousins' Study About the Complementarity Between the Purpose-In-Life Test (PIL) and the Seeking of Noetic Goals (SONG) Among Spanish Young People

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Abstract The main aim of this study was to replicate the Reker and Cousins' (1979) work about the complementarity between the the *Purpose-In-Life Test* (PIL), which indicates the degree to which the person has found meaning and purpose in life (presence of meaning), and the *Seeking of Noetic Goals* (SONG), which measures the degree to which the person is motivated to find meaning and purpose in life (search for meaning). Participants were 349 Spanish undergraduates (224 women, 64.20 %, and 125 men, 35.80 %) between 18 and 26 years old, $M = 20.81$, $SD = 2.17$. Principal Component Analysis showed eight factors: four mainly related to the presence of meaning and four mainly related to the search for meaning. The PIL contributed four factors to presence of meaning, whereas the SONG contributed four factors to the search for meaning. The results confirmed the factorial structure, internal consistency, and validity of both scales and their complementarity.

Keywords Presence of meaning · Search for meaning · Purpose In Life test · Seeking of Noetic Goals test · Logotherapy · Meaning-centered therapy

1 Introduction

According to Frankl (1963/2007), the founder of logotherapy, experiencing meaning in life (MiL) is the main motivation for human beings (the so-called 'will to meaning'), which includes the perception of freedom, autonomy, self-determination, responsibility and positive vision of one's life and the future, purpose and fulfillment of existential goals, integrating acceptance of adversity, life satisfaction, and self-fulfillment. On the contrary, experiencing lack of MiL (the so-called 'existential vacuum' by Frankl) is related to feeling a negative cognitive-emotional-motivational state that includes dissatisfaction with

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life, hopelessness, perception of lack of control over one's life, and absence of vital goals. After Frankl, other authors have conceptualized MiL in different ways (e.g. McDonald et al. 2012; Steger et al. 2006), and several scales have been developed for assessing both presence of and search for MiL from logotherapy assumptions (e.g. McDonald et al. 2012; Melton and Schulenberg 2008). Among the most used there are the *Purpose-In-Life Test* (PIL; Crumbaugh and Maholick 1969), which indicates the degree to which the person has found meaning and purpose in life (presence of meaning), and the *Seeking Of Noetic Goals* (SONG; Crumbaugh 1977), which measures the degree to which the person is motivated to find meaning and purpose in life (search for meaning).

The PIL (Crumbaugh and Maholick 1969) is a 20-item scale that includes short sentences (e.g. 'I am'), followed by a seven-point rating scale with different anchors for each item (1 = Completely bored, 7 = Enthusiastic; point number 4 is neutral for each item). The total score on the PIL ranges from 20 to 140: the higher the score, the higher the presence of meaning. The general item content of the PIL is the following (Schulenberg and Melton 2010, p. 96): (1) enthusiasm vs. boredom, (2) excitement in living, (3) presence of clear life goals, (4) life being meaningful, (5) newness of each day, (6) wishing for more lives, (7) activity after retirement, (8) life goal completion, (9) good things in life, (10) life lived having been worthwhile, (11) having a reason to be alive, (12) world is meaningful, (13) individual responsibility, (14) freedom in making decisions, (15) being prepared for death, (16) suicidal thoughts, (17) capacity to find meaning, (18) life internally/externally determined, (19) gratification in daily tasks, (20) presence of goals/life purpose. The PIL is a widely used scale in empirical research on MiL, and a large number of studies report its high internal consistency in different populations and cultures (e.g. Jonsén et al. 2010; Mohtadi and Kushe 2013; Zhang et al. 2015). The presence of meaning has been related to positive psychological functioning and mental health in both non-clinical and clinical populations (e.g. Ho, Cheung, and Cheung 2010; Kleftaras and Psarra 2012; Marco et al. 2015; Stolovy et al. 2009), and its structural validity has been analyzed in several studies (e.g. García-Alandete et al. 2013; Schulenberg and Melton 2010).

The SONG (Crumbaugh 1977) is a 20-item scale with a 7-point Likert-type format (1 = Never, 7 = Constantly) developed to assess the degree to which a person is actively searching for a purpose for his/her life. The total score on the SONG ranges from 20 to 140: the higher the score, the stronger the motivation to find meaning. The general item content of the SONG is the following (Schulenberg et al. 2014, p. 697): (1) ultimate life meaning, (2) uncertainty about future accomplishments, (3) sustained interest in activities, (4) something missing in life, (5) restlessness, (6) future fulfillment in life, (7) future excitement, (8) seeking a new sense of self, (9) lack of meaning/purpose, (10) achievement orientation, (11) indecision about ambitions, (12) bothered by the uncertainty of life, (13) need for a new life perspective, (14) lack of goal commitment/completion, (15) adventurous nature, (16) motivation to discover self, (17) impermanence of life direction, (18) ultimate life direction, (19) unfulfilled duty, and (20) motivation to accomplish the extraordinary. Several studies report a high internal consistency with values above .80 (e.g. Baczwaski 2011). Feelings of meaninglessness or a lack of purpose in life have been related to psychopathology in recent decades (e.g. Harlow et al. 1986; Schulenberg et al. 2011). Hutzell (1987) noted that the SONG should mainly be used for research purposes, primarily due to concerns about its validity in clinical populations. Benedict et al. (2004) stated that additional research on the SONG's reliability and validity would have to be conducted with diverse populations before its true utility could be determined. In this regard, several studies have reported different factorial structures for the SONG (e.g. Haugan and Moksnes 2013; Schulenberg et al. 2014).

According to Crumbaugh (1977) and Reker and Cousins (1979), the PIL and the SONG are complementary scales. In fact, the SONG was developed as a complementary scale to the PIL in order to better understand MiL. As noted above, the PIL assesses the degree to which a person has found a purpose for his or her life, while the SONG assesses the degree to which a person is actively searching for a purpose for his or her life. Crumbaugh (1977) stated that if a person "has now found it [MiL] he would have little motivation to search for more; whereas if he has not, he would be highly motivated to supply this need" (pp. 900–901). If a person experiences presence of meaning and purpose, he or she will feel low motivation to search for additional sources of MiL. By contrast, when one does not experience MiL, he or she is encouraged to search for MiL. As Steger et al. (2008, p. 202) posited, "the search for meaning must be understood in relation to the presence of meaning". Thus, using the PIL and SONG scales together might make it possible to identify individuals who can benefit from meaning-centered interventions (e.g. Guttman 1996).

The negative PIL-SONG correlation obtained in several studies over decades (Brunelli et al. 2012; Crumbaugh 1977; Reker and Cousins 1979; Schulenberg 2004; Schulenberg and Gohm 2009; Schulenberg et al. 2014; Sink et al. 1997; Yarnell 1972), as well as their inverse relationship with psychological functioning, supports these ideas. With regard to the inverse relationship of the PIL and SONG with psychological functioning, the presence of MiL protects against certain clinical phenomena, such as anxiety, depression, hopelessness, self-injurious behaviour, and suicide (e.g. Kleiman and Beaver 2013; Reker and Woo 2011), whereas the search for MiL has been positively associated with psychological disorders (e.g. García-Alandete et al. 2014; Steger et al. 2009). Schulenberg et al. (2014) found that the *Existential Vacuum* factor of a version of the SONG correlated negatively with both MiL and satisfaction with life, and positively with measures of depression and general psychological distress. However, the *Will to Meaning* factor of that version of the SONG correlated positively with MiL and negatively with both depression and general psychological distress, while it did not correlate significantly with satisfaction with life.

Reker and Cousins (1979) suggested that the negative PIL-SONG correlation could be an artifact of scoring SONG items in the opposite direction to the PIL, and they hypothesized that if the PIL and the SONG are truly complementary, two independent factors should emerge (*Purpose In Life* and *Seeking of Noetic Goals*). However, if the SONG is an attitude scale scored in the reverse direction from the PIL, then one general factor of negative and positive loadings should account for a sizeable proportion of the variability. Reker and Cousins (1979) carried out a combined factor structure analysis of the SONG and the PIL and found a 10-factor model, and an independent factor analysis of the SONG led to a model with 4 s-order factors (52.8 % of the variance): *Existential Vacuum* (29.5 %), *Goal Seeking* (9.8 %), *Search for Adventure* (7.1 %), and *Futuristic Aspirations* (6.4 %). Reker and Cousins (1979) concluded that the SONG and the PIL contributed four independent dimensions to the MiL construct, and the data provided strong evidence for the factorial validity of both scales.

The main purpose of the present study was to replicate the Reker and Cousins (1979) work about the complementarity of the PIL and the SONG, using exploratory factor analysis in a sample of Spanish young people. We analyzed the means and standard deviations of the PIL and the SONG, as well as the correlations between these scales and several measures of personal well-being (satisfaction with life, psychological well-being, happiness, and positive/negative self-esteem). We hypothesized that (1) the combined PIL and SONG items will result in a factorial structure where two main dimensions (presence of meaning and search for meaning) can be distinguished; (2) the

presence of meaning dimension will be mainly composed of items from the PIL, whereas the search for meaning dimension will be mainly composed of items from the SONG; (3) the PIL and the SONG will be negatively and moderately correlated; (4) correlations between the PIL and scales of personal well-being will be positive, whereas correlations between the SONG and these scales will be negative. In addition, correlations between the PIL and the SONG and age, as well as gender differences on both these scales were analyzed. This is an original contribution, since there are no studies about the complementarity between the PIL and the SONG among the Spanish population, to our knowledge.

2 Method

2.1 Participants

Participants were 349 Spanish undergraduates (224 women, 64.20 %, and 125 men, 35.80 %) with an age range between 18 and 26 years, $M = 20.81$, $SD = 2.17$. Most of the participants were physiotherapy students ($n = 81$, 23.20 %), followed by students of social education ($n = 67$, 19.20 %), psychology ($n = 56$, 16 %), occupational therapy ($n = 47$, 13.50 %), law ($n = 36$, 10.30 %), speech therapy ($n = 32$, 9.20 %), podiatry ($n = 19$, 5.40 %), and education ($n = 11$, 3.20 %). A convenience sampling method was used. Participants collaborated voluntarily and received no compensation.

2.2 Instruments

The PIL and the SONG, described above, were used. Specifically, a Spanish version of the SONG (Crumbaugh 1977), included in Fabry (2006), and a Spanish version of the PIL (Noblejas 1994) were used. Both of these PIL and SONG versions showed high internal consistency, $\alpha = .90$ and $\alpha = .87$, respectively. In addition, other scales, described below, were used to analyze the validity of the PIL and the SONG. An expert translator revised the Spanish versions of all the scales.

Satisfaction with Life Scale (SWLS; Diener et al. 1985). This 5-item scale assesses satisfaction with life as a cognitive judgment on a Likert-type scale (1 = Strongly disagree, 7 = Strongly agree). Arce's (1994) Spanish adaptation, which showed high internal consistency in the present study, $\alpha = .89$, was used.

Scales of Psychological Well-Being (SPWB; Ryff 1989a, b). A Spanish 29-item Likert-type scale (1 = Strongly agree, 6 = Strongly disagree) was used (Díaz et al. 2006). This scale assesses PWB, such as personal development and commitment to existential life challenges, from an eudaimonic conception of PWB. The PWBS includes six dimensions: Self-acceptance, Positive Relations, Autonomy, Environmental Mastery, Personal Growth, and Purpose in Life (Ryff and Singer 2008). In the present study, the PWBS showed high internal consistency, $\alpha = .89$.

Oxford Happiness Questionnaire (OHQ; Hills and Argyle 2002). A Spanish 29-item Likert-Type scale (1 = Strongly disagree, 6 = Strongly agree) was used (Tomás-Sábado et al. 2014). The total score ranges from 29 to 174: the higher the score, the higher the subjective well-being. The Spanish adaptation used in the present study showed high internal consistency, $\alpha = .88$.

Rosenberg's Self-esteem Scale (RSES; Rosenberg 1965). Atienza, Moreno, and Balaguer's (2000) Spanish version was used. The RSES is a 10-item scale that assesses self-esteem. The RSES includes two subscales: the Positive Self-esteem Subscale (RSES-P) and the Negative Self-esteem Subscale (RSES-N). In the present study, the RSES-P showed high internal consistency, $\alpha = .81$, and the RSES-N showed acceptable internal consistency, $\alpha = .69$.

2.3 Procedure and Statistical Analyses

Participants completed the measures in large classroom settings. They filled out both scales under the supervision of the authors of this study, who briefly explained its nature and objectives without emphasizing aspects that could bias the responses. Any doubts about the process were clarified, ensuring anonymity and confidentiality and emphasizing the sincerity of the answers to maximize the validity of the data.

The SPSS 17.0 program for Windows was used to carry out the following statistical analyses: (1) a Principal Component Analysis with Varimax rotation and Kaiser normalization was performed on the combined items on the PIL and the SONG. In addition to the KMO test, Bartlett's sphericity test, and eigen-values higher than 1, the loading of each item in the factors should be equal to or greater than .30; (2) the means and standard deviations of both the PIL and the SONG; (3) the *t* test for the gender-related differences in both the PIL and SONG; (4) the Pearson's coefficient for correlations between the PIL and the SONG and several measures of psychological functioning (satisfaction with life, psychological well-being, happiness, and self-esteem).

3 Results

3.1 Factor Structure

The factor structure, factor labels, percentage of explained variance, and factor loadings of the combined PIL and SONG items are shown in Table 1. Eight independent factors emerged, accounting for 58.09 % of the total variance.

Factors 1, 6, 7, and 8 included, exclusively or mainly, items from the PIL, and they explained 30.82 % of the total variance:

1. Factor 1 (called *Exciting, meaningful life and goals*) explained 20.41 % of the total variance and included items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, and 20 from the PIL, which loaded positively, as well as items 4 and 9 from the SONG, which loaded negatively.
2. Factor 6 (called *Vital concerns*) explained 3.64 % of the total variance and included items 6 and 16 from the PIL, which loaded negatively, item 15 from the PIL, which loaded positively, and item 12 from the SONG, which loaded negatively.
3. Factor 7 (called *Worth and attractiveness of life*) explained 3.47 % of the total variance and included items 7, 10, and 11 from the PIL, which loaded positively, items 3 and 5 from the SONG, which loaded negatively, and item 15 from the SONG, which loaded positively.
4. Factor 8 (called *Responsibility, achievement of goals, and satisfaction with daily tasks*) explained 3.30 % of the total variance and included items 8, 13, and 19 from the PIL, which loaded positively.

Table 1 Factors, percentage of explained variance, factor loadings, and items of the PIL and the SONG

Factors and items		Loading
<i>Factor 1: Exciting, meaningful life and goals (20.41 %)</i>		
PIL5	Every day is: exactly the same/constantly new and different	.81
PIL9	My life is: empty, filled only with despair/running over with exciting things	.80
PIL2	Life to me seems: completely routine/always exciting	.75
PIL4	My personal existence is: utterly meaningless, without purpose/purposeful and meaningful	.72
PIL12	As I view the world in relation to my life, the world: completely confuses me/fits meaningfully with my life	.70
PIL20	I have discovered: no mission or purpose in life/a satisfying life purpose	.69
PIL11	In thinking of my life, I: often wonder why I exist/always see reasons for being here	.67
PIL19	Facing my daily tasks is: a painful and boring experience/a source of pleasure and satisfaction	.67
PIL3	In life, I have: no goals or aims/clear goals and aims	.67
PIL1	I am usually: bored/enthusiastic	.66
PIL10	If I should die today, I'd feel that my life has been: completely worthless/very worthwhile	.66
PIL17	I regard my ability to find a purpose or mission in life as: practically none/very great	.64
PIL18	My life is: out of my hands and controlled by external factors/in my hands and I'm in control of it	.62
PIL6	If I could choose, I would: prefer never to have been born/want 9 more lives just like this one	.56
PIL8	In achieving life goals, I've: made no progress whatever/progressed to complete fulfillment	.55
PIL14	Concerning freedom to choose I believe humans are: completely bound by limitations of heredity and environment/totally free to make all life choices	.50
PIL16	Regarding suicide, I have: thought of it seriously as a way out/never given it a second thought	.47
PIL7	After retiring, I would: loaf completely the rest of my life/do some of the exciting things I've always wanted to	.36
SONG 4	I feel that some element which I can't quite define is missing from my life	-.38
SONG9	I feel the lack of and a need to find a real meaning and purpose in my life	-.35
<i>Factor 2: Unsatisfying life, lack of meaning, and lack of goals (8.57 %)</i>		
SONG8	I daydream of finding a new place for my life and a new identity	.71
SONG13	I feel myself in need of a 'new lease on life'	.70
SONG9	I feel the lack of and a need to find a real meaning and purpose in my life	.70
SONG11	I seem to change my main objective in life	.54
SONG 4	I feel that some element which I can't quite define is missing from my life	.53
SONG16	Over my lifetime I have felt a strong urge to find myself	.48
SONG17	On occasion I have thought that I had found what I was looking for in life, only to have it vanish later	.41
SONG15	I feel the need for adventure and 'new worlds to conquer'	.31
SONG12	The mystery of life puzzles and disturbs me	.35
<i>Factor 3: Expectations and attitude toward future (6.91 %)</i>		
SONG7	I hope for something exciting in the future	.79
SONG 6	I feel that the greatest fulfillment of my life lies yet in the future	.78
SONG10	I think of achieving something new and different	.59

Table 1 continued

	Factors and items	Loading
SONG15	I feel the need for adventure and 'new worlds to conquer'	.37
SONG18	I have been aware of all-powerful and consuming purposes toward which my life has been directed	.37
SONG20	I have felt a determination to achieve something far beyond the ordinary	.36
SONG 5	I am restless	.34
<i>Factor 4: Doubts about life, destiny, and goals (5.92 %)</i>		
SONG 1	I think about the ultimate meaning of life	.81
SONG 2	I have experienced the feeling that while I am destined to accomplish something important, I cannot quite put my finger on just what it is	.71
SONG12	The mystery of life puzzles and disturbs me	.52
SONG18	I have been aware of all-powerful and consuming purposes toward which my life has been directed	.50
SONG20	I have felt a determination to achieve something far beyond the ordinary	.40
SONG16	Over my lifetime I have felt a strong urge to find myself	.39
<i>Factor 5: Determination and tenacity in goals (5.87 %)</i>		
SONG19	I have sensed a lack of a worthwhile job to do in life	.66
SONG14	Before I achieve one goal, I start out towards a different one	.61
SONG 3	I try new activities or areas of interest, and then these soon lose their attractiveness	.52
SONG17	On occasion I have thought that I had found what I was looking for in life, only to have it vanish later	.53
SONG20	I have felt a determination to achieve something far beyond the ordinary	.50
SONG11	I seem to change my main objective in life	.48
PIL7	After retiring, I would: loaf completely the rest of my life/do some of the exciting things I've always wanted to	-.30
<i>Factor 6: Vital concerns (3.64 %)</i>		
PIL15	With regard to death, I am: unprepared and frightened/prepared and unafraid	.73
PIL16	Regarding suicide, I have: thought of it seriously as a way out/never given it a second thought	-.50
SONG12	The mystery of life puzzles and disturbs me	-.39
PIL6	If I could choose, I would: prefer never to have been born/want 9 more lives just like this one	-.33
<i>Factor 7: Worth and attractiveness of life (3.64 %)</i>		
PIL7	After retiring, I would: loaf completely the rest of my life/do some of the exciting things I've always wanted to	.44
PIL10	If I should die today, I'd feel that my life has been: completely worthless/very worthwhile	.30
PIL11	In thinking of my life, I: often wonder why I exist/always see reasons for being here	.33
SONG15	I feel the need for adventure and 'new worlds to conquer'	.38
SONG 5	I am restless	-.45
SONG 3	I try new activities or areas of interest, and then these soon lose their attractiveness	-.20
<i>Factor 8: Responsibility, achievement of goals, and satisfaction with daily tasks (3.30 %)</i>		
PIL13	I am a: very irresponsible person/very responsible person	.82
PIL8	In achieving life goals, I've: made no progress whatever/progressed to complete fulfillment	.39

Table 1 continued

	Factors and items	Loading
PIL19	Facing my daily tasks is: a painful and boring experience/a source of pleasure and satisfaction	.32

Extraction method: principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 11 iterations

These four factors, which mainly included items from the PIL that loaded positively, along with a few items from the SONG that loaded negatively, adhere to presence of meaning.

Factors 2, 3, 4, and 5 included, exclusively or mainly, items from the SONG, and they explained 27.27 % of the total variance:

1. Factor 2 (called *Unsatisfying life, lack of meaning, and lack of goals*) explained 8.57 % of the total variance and included items 4, 8, 9, 11, 12, 13, 15, 16 and 17 from the SONG, which loaded positively.
2. Factor 3 (called *Expectations and attitude toward future*) explained 6.91 % of the total variance and included items 5, 6, 7, 10, 15, 18 and 20 from the SONG, which loaded positively.
3. Factor 4 (called *Doubts about life, destiny, and goals*) explained 5.92 % of the total variance and included items 1, 2, 12, 16, 18 and 20 from the SONG, which loaded positively.
4. Factor 5 (called *Determination and tenacity in goals*) explained 5.87 % of the total variance and included items 3, 11, 14, 17, 19 and 20 from the SONG, which loaded positively, as well as item 7 from the PIL, which loaded negatively.

These four dimensions, which mainly and positively included items from the SONG, along with a few items from the PIL that loaded negatively, adhere to search for meaning.

Overall, the items from the PIL (presence of meaning) loaded negatively in the dimensions where mainly items from the SONG loaded (search for meaning) and vice versa. Only 5 items (3, 4, 5, 9, and 12) from the SONG negatively loaded in a factor mainly related to presence of meaning, and 1 item (7) from the PIL loaded negatively in a factor mainly related to search for meaning.

3.2 Validity

The PIL-SONG correlation was negative and significant, $r = -.25$, $p = .000$, in the full sample. For the groups of men and women, the PIL-SONG correlation was negative and significant, $r = -.20$, $p = .025$ and $r = -.26$, $p = .000$, respectively.

The PIL correlated positively with the SWLS, $r = .73$, $p = .000$, the SPWB, $r = .71$, $p = .000$, the OHQ-SF, $r = .75$, $p = .000$, and the RSES-P, $r = .58$, $p = .000$, whereas it correlated negatively with the RSES-N, $r = -.48$, $p = .000$.

The SONG correlated negatively with the SWLS, $r = -.29$, $p = .000$, the SPWB, $r = -.38$, $p = .000$, the OHQ-SF, $r = -.34$, $p = .000$, and the RSES-P, $r = -.18$, $p = .001$, whereas it correlated positively with the RSES-N, $r = .40$, $p = .000$.

3.3 Norms, Gender-Related Differences, and Age-Related Correlations

The means and standard deviations for the PIL and the SONG are shown in Table 2. Men reached a higher score on the SONG than women, whereas women reached a higher score on the PIL than men. Gender differences were significant for both the PIL, $t_{(347)} = -2.05$, $p = .04$, and the SONG, $t_{(347)} = 2.76$, $p = .01$. The effect sizes for the gender-related differences in the PIL and SONG were small, $d_{\text{Cohen}} = .23$ (95 % CI [.01, .45]) and $d_{\text{Cohen}} = -.31$ (95 % CI [-.53, -.09]), respectively.

Age correlated positively with the PIL, whereas it correlated negatively with the SONG, but these correlations were non significant, $r = .02$, $p = .779$ and $r = -.07$, $p = .169$, respectively. For the group of men, age correlated positively with the PIL and negatively with the SONG, but these correlations were non significant, $r = .07$, $p = .438$ and $r = -.09$, $p = .341$, respectively. For the group of women, age correlated negatively with both the PIL and SONG, but these correlations were non significant, $r = -.02$, $p = .805$ and $r = -.07$, $p = .279$.

4 Discussion

The main aim of the current study was to replicate the complementarity of two scales: the Purpose-In-Life Test (PIL; Crumbaugh and Maholick 1969) for assessing the presence of meaning, and the Seeking of Noetic Goals Test (SONG, Crumbaugh 1977) for assessing the search for meaning, as in Reker and Cousins (1979). Additionally, internal consistence of both the PIL and SONG, correlations between these scales as well as several measures of positive psychological functioning (satisfaction with life, psychological well-being, happiness, and self-esteem), as well as age and gender-related differences, were analyzed. To our knowledge, there are no studies about the complementarity between the PIL and the SONG among the Spanish population.

Regarding both the first and second hypotheses (1: the combined PIL and SONG items will result in a factorial structure where presence of and search for meaning can be distinguished; 2: the presence of meaning dimension will be mainly composed of items from the PIL, whereas the search for meaning dimension will be mainly composed of items from the SONG), eight factors were obtained, of which four were mainly related to the presence of meaning because they were exclusively or mainly composed of items from the PIL (*Exciting, meaningful life and goals; Vital concerns; Worth and attractiveness of life; Responsibility, achievement of goals, and satisfaction with daily tasks*), and four were mainly related to the search for meaning because were exclusively or mainly composed of items from the SONG (*Unsatisfying life, lack of meaning, and lack of goals; Expectations and attitude towards future; Doubts about life, destiny, and goals; Determination and tenacity in goals*). The *Exciting, meaningful life and goals* factor stands out because it included nineteen items from the PIL that loaded positively and two items from the SONG

Table 2 Means and standard deviations for the PIL and the SONG

Variable	Men ($n = 125$)		Women ($n = 224$)		Overall ($n = 349$)	
	M	SD	M	SD	M	SD
PIL	106.53	16.67	110.05	14.59	108.79	15.43
SONG	78.68	17.33	73.53	16.33	75.38	16.85

that loaded negatively. The *Unsatisfying life, lack of meaning, and lack of goals* factor, the *Expectations and attitude towards future* factor, and the *Doubts about life, destiny, and goals* factor were exclusively composed of items from the SONG. The *Responsibility, achievement of goals, and satisfaction with daily tasks* factor was composed exclusively of items from the PIL. The loading sign of the PIL items in the factors that were mainly composed of items from the SONG was negative, and vice versa, except in the case of PIL items 16 and 6, which loaded negatively in the *Vital concerns* factor, and SONG item 15, which loaded positively in the *Worth and attractiveness of life* factor.

There are convergences between the factors obtained by Reker and Cousins (1979) and the factors obtained in the present study, albeit with some nuances. Thus, with regard to the presence of meaning dimension, and taking into consideration the items included in the corresponding factors, the *Exciting, meaningful life and goals* factor corresponded to Reker and Cousins' (1979) *Purpose in Life, Goal Achievement, Contentedness with Life*, and *Life View* factors; the *Vital Concerns* factor corresponded to Reker and Cousins' (1979) *Contentedness with Life* factor; the *Worth and attractiveness of life* factor corresponded to Reker and Cousins' (1979) *Purpose in Life* factor; the *Responsibility, achievement of goals, and satisfaction with daily tasks* factor corresponded to Reker and Cousins' (1979) *Self-fulfillment* factor. Regarding the dimension search for meaning, the *Unsatisfying life, lack of meaning, and lack of goals* factor corresponded to Reker and Cousins' (1979) *Existential Vacuum* factor; the *Expectations and attitude towards future* factor corresponded to both the *Search for Adventure* and *Futuristic Aspirations* factors; the *Doubts about life, destiny, and goals* factor corresponded to Reker and Cousins' (1979) *Goal Seeking* factor; the *Determination and tenacity in goals* factor corresponded to particular aspects included in Reker and Cousins' (1979) *Goal Achievement, Existential Vacuum, Search for Adventure, Internal/External Locus of Control*, and *Self-fulfillment* factors.

In sum, the PIL contributes four factors to the MiL, satisfaction with life, and purposes and goals (presence of meaning). The SONG contributes four factors to the unsatisfying life, lack of meaning, and doubts and expectations about the future (search for meaning). These results confirm the factorial validity of both scales, as Reker and Cousins (1979) stated, as well as their complementarity.

Furthermore, both the PIL and the SONG showed high internal consistency in the present study, as found in a large number of studies that used different populations in recent decades (e.g. DeWitz et al. 2009; Gurrola et al. 2011; Melton and Schulenberg 2008; Mohtadi and Kushe 2013; Schulenberg 2004; Schulenberg and Gohm 2009; Sink et al. 1997; Zhang et al. 2015), supporting their reliability.

Regarding the third hypothesis (the PIL and the SONG will be negatively and moderately correlated), the PIL and the SONG showed a moderate, negative correlations, in the full sample and in the groups of men and women. These results are consistent with previous studies (Brunelli et al. 2012; Crumbaugh 1977; Schulenberg 2004; Schulenberg and Gohm 2009; Schulenberg et al. 2014; Reker and Cousins 1979; Sink et al. 1997; Yarnell 1972) and support the complementarity of these scales.

Regarding the fourth hypothesis (correlations between the PIL and scales of personal well-being will be positive, whereas correlations between the SONG and these scales will be negative), the PIL correlated positively with satisfaction with life, psychological well-being, happiness, and positive self-esteem, and negatively with negative self-esteem, whereas the SONG correlated negatively with the measures of personal well-being and positively with negative self-esteem. These results are convergent with a large number of studies that have obtained a positive relationship between the SONG and different measures of psychopathology (e.g. Schulenberg et al. 2011; Yarnell 1972) and between the PIL

and different measures of personal well-being and positive mental functioning (e.g. Ho et al. 2010; King et al. 2006; Marco et al. 2015; Park et al. 2010). The opposite direction of correlations between the PIL and the SONG and measures of personal well-being obtained in the current study support their structural validity.

Despite the results showed that the PIL and the SONG are valid and reliable scales, some critical considerations must be made. The PIL and the SONG have been criticized regarding their psychometric properties (e.g. Dyck 1987; Frazier et al. 2003) and other scales for measuring presence of and search for meaning have been proposed. Among these scales, a widely used one is the *Meaning in Life Questionnaire* (MLQ; Steger et al. 2006). The MLQ includes two orthogonal subscales for assessing the subjective sense that one's life is meaningful (*Presence of Meaning*) and the drive and orientation toward finding personal MiL (*Search for Meaning*), and showed a robust structure, good internal consistency, and validity, with different patterns of correlations between both the *Presence of Meaning* and *Search for Meaning* dimensions and other scales that measure positive and negative psychological functioning. Following Steger et al. (2006), the MLQ may be a good alternative to other measures of meaning and to the PIL and SONG combination. According to these authors, presence of and search for meaning are independent dimensions, and it creates an apparent conceptual paradox: someone can report search for meaning when he or she already experience presence of meaning. Furthermore, "the search for meaning could be a desire for a deeper or more gratifying understanding of what makes one's life meaningful [and] it could also be the case that the elements that give meaning to a person's life fluctuate over time" (Steger et al. 2006, p. 85). However, the MLQ has been also criticized: this scale would have a lack of content in its measures of presence of and search for meaning because its items consist mainly of different ways of rephrasing the statement 'I have meaning' or 'I am searching for meaning'; it would fall short of affirming the belief that there is always meaning to be found in life regardless of the circumstances; it would be difficult to interpret the score of the Search subscale without knowing which search stage the person is in because the score would be related to a crisis in meaning [...] and it could also reflect the human tendency to continue to make sense of life and seek deeper significance even when the individual already enjoys a meaningful life (McDonald et al. 2012, p. 366). Other authors found insensitivity of the Presence subscale for high levels of presence of meaning, among other limitations of the MLQ, and indicated further investigation of the construct's nature and measurement, especially at high levels (Schutte et al. 2016).

Regarding the aforementioned, it is difficult to decide if it is better to use the MLQ or the PIL and SONG combination in order to assess presence of and search for meaning: all these scales have shown acceptable psychometric properties and, at the same time, all of them have been criticized. On the other hand, the conceptualization of 'meaning' that these scales involve might be different. With regard to that, it might be helpful to distinguish between 'existential meaning' and 'meaning in life' (MiL): whereas MiL might only refer to meaning of the situation or cognitive meaning, existential meaning might also refer to meaning of human existence, meaning of one's life as a whole, and ultimate meaning. It would be interesting to analyze which sense of 'meaning' is measured by the MLQ and the PIL and SONG combination, in order to establish which of these measures has advantage over the other. In our opinion, the combined use of the PIL and SONG may offer an extensive and accurate information on the "two faces" of MiL, presence and searching, and, with regard to that, it may be a useful tool for clinical assessing and intervention, as Crumbaugh (1977) and Reker and Cousins (1979) suggested, as well as for the current research on both psychological and subjective well-being.

4.1 Gender-Related Differences in the PIL and the SONG

With regard to the gender-related differences in the PIL, it must be noted that the mean difference between men and women was significant with a small effect size. Previous studies that mostly used the PIL to assess MiL in different populations (e.g. undergraduates, older people, mental disorder patients) found differing results: some studies found that women reached a significantly higher score than men on the PIL (e.g. Crumbaugh 1968; Doerries 1970; García-Alandete et al. 2011; Jonsén et al. 2010; Molasso 2006), while some studies found that men reached a significantly higher score on the PIL (e.g. Brunelli et al. 2012; Crumbaugh 1968; Hedberg et al. 2010; Mak and Shek 1990; Nygren et al. 2005), and other studies found that the gender-related differences on the PIL were non significant (e.g. Crumbaugh and Maholick 1964; DeWitz et al. 2009; Meier and Edwards 1974; Reker and Cousins 1979; Sallee and Casciani 1976; Stolovy et al. 2009; Yarnell 1972). These differences could indicate the influence of different psychosocial variables that might mediate the relationship between gender and MiL, which would require specific research.

Regarding the gender-related differences in the SONG, men showed a significantly higher score than women in the current study, unlike Yarnell (1972), Reker and Cousins (1979), and Schulenberg et al. (2014), who obtained non significant differences between men and women on the SONG. However, Reker and Cousins (1979) stated that there was a tendency for women to have greater presence of meaning and a corresponding lower level of motivation to search for meaning.

In the current study, the relationship between gender and the PIL was opposite to the relationship between gender and the SONG: on the PIL, women reached a higher mean than men, whereas on the SONG, men reached a higher mean than women. Thus, the results obtained for the relationship between gender and presence of meaning and search for meaning are inverse and consistent because the PIL and the SONG assess inverse constructs: the higher the presence of meaning, the lower the search for meaning, and vice versa.

4.2 Correlations Between Age and the PIL and SONG

Age showed a positive, non-significant relationship with the PIL and a negative one with the SONG in the full sample and in men. For women, the age correlation with the PIL and the SONG was negative and non significant. The relationship between age and the PIL and SONG might be mediated by gender, but further research is needed. These results, which would be conditioned by the narrow age range of the participants, coincide with those obtained in other studies (e.g. Reker and Cousins 1979; Yarnell 1972). The results show that presence of meaning and search for meaning seem to be independent from age.

5 Implications for Practical Psychology

According to Frankl (1963/2007), MiL is a main motivation of human beings. Everyone needs to experience MiL, and therefore, everyone searches for MiL. Some personal circumstances (life events, severe disabilities, mental illness, among others) can make this search for meaning difficult. As Steger et al. (2008, p. 201) stated, “search for meaning might be subsidiary to one’s perceived inability to achieve personal growth, exert control

over one's environment, or develop firmly held beliefs and self-acceptance. Just as deficits in well-being might stimulate search for meaning, search for meaning might originate in people's cognitive styles".

The findings of the current study might have some implications for practical psychology. Since everyone wants to experience presence of meaning and, at the same time, to find new resources of meaning, psychological assessment and counseling, as well as clinical intervention, should aim to empower people, improving their cognitive and emotional functioning, self-acceptance and self-regulation, environmental mastery and autonomy, and personal growth and well-being, in order to activate a positive attitude and a positive direction in the search for meaning. It would be specially interesting taking into account that, following Elliot and Thrash (2002) and Steger et al. (2008), two search for meaning orientations could be distinguished: a positive, functional orientation (seeking positives, approach-oriented people) and a dysfunctional orientation (shunning negatives, avoidance-oriented people). Practical interventions (clinical, counselling, and educational, among others) should strengthen a positive search for meaning orientation across the life span. As Reker (2000, p. 39) affirmed, MiL is not only a main motivational principle for human beings, but it is "an important construct in the prevention of illness, the promotion of wellness and successful adaptation to life's changing circumstances".

As noted above, using the PIL and SONG together, as complementary scales, might help to identify individuals who can benefit from meaning-centered interventions (Guttmann 1996). Thus, knowing more about the relation between presence of meaning and search for meaning, as well as the mediator role of several psychosocial variables, can provide important resources for practical psychology, enhancing therapeutic practice in both clinical and nonclinical populations.

6 Limitations and Suggestions for Future Research

One important limitation of the present study is the use of correlational methods, which do not allow us to establish causal models about the relationship between presence of meaning and search for meaning. It would be important to carry out future research to address this issue.

Another limitation linked to the previous one is the cross-sectional design of the current study. A longitudinal design could shed light on the relationship between presence of meaning and search for meaning, especially if it includes significant variables related to the search for meaning orientations, such as satisfaction with life, optimism, autonomy, self-regulation, and psychological well-being, among others. In this regard, it would be important to further investigate the relationship between presence of meaning and search for meaning, and the relationships between these constructs and personality characteristics, cognitive styles, and coping strategies, among other psychosocial variables. It might also be important to investigate the internal (e.g. autonomy, self-regulation, coping strategies, cognitive style, and spirituality, among others) and external (e.g. social support network, family, status, and positive relations, among others) resources that can activate a positive personal profile for the search for meaning (e.g. Grouden and Jose 2014, 2015; Steger et al. 2008).

A third limitation was that the sample included only Spanish participants. Presence of meaning and search for meaning, as well as their relationships, may be mediated by cultural factors. Thus, it would be important to carry out cross-cultural studies (e.g. Pan

et al. 2008; Sink et al. 1997). MiL is personal, but it is also the product of the internalized culture, and it is also important in understanding the culture (e.g. Wong and Wong 2006).

In future studies, it would be interesting to have more representative samples from general and clinical populations and analyze the relationship between presence of meaning and search for meaning, as well as the mediator role of different socio-demographic and psychosocial variables using more sophisticated statistical analyses and research designs. Regarding gender, it must be added that few studies have analyzed the gender-related differences in the PIL and the SONG (particularly the latter). Therefore, it might be important to analyze the mediator role that different psychosocial variables can play between gender and the PIL and SONG.

7 Conclusions

In sum, the main findings of the current study were that (1) the factorial validity of both the PIL and SONG, as well as their complementarity, was confirmed: the PIL contributed four factors to the MiL, satisfaction with life, and purposes and goals (presence of meaning), and the SONG contributed four factors to the unsatisfying life, lack of meaning, and doubts and expectations about the future (search for meaning), (2) both the PIL and the SONG are reliable scales, (3) both the PIL and the SONG have a moderate, negative correlation, (4) correlations between the PIL and measures of personal well-being were positive, whereas correlations between the SONG and these measures were negative, and vice versa, (5) men scored higher on the SONG than women, whereas women scored higher on the PIL than men, and (6) presence of meaning and search for meaning appeared to be independent from age. To better know how presence of and search for meaning (as complementary dimensions of MiL) are experienced, and how they are related, may be useful for practical psychology.

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