

Psychometric properties of the Meaning in Life Questionnaire in Spanish people diagnosed with Borderline Personality Disorders

Joaquín García-Alandete (✉ joaquin.garcia-alandete@uv.es)

University of Valencia <https://orcid.org/0000-0003-0769-4060>

Sandra Pére

University of Valencia <https://orcid.org/0000-0003-1210-8732>

Fátima Lorca-Alamar

Villanueva University <https://orcid.org/0000-0003-0886-7277>

Verónica Guillén

University of Valencia <https://orcid.org/0000-0003-2247-5210>

José H. Marco

University of Valencia <https://orcid.org/0000-0002-1545-6452>

Research Article

Keywords: meaning in life, borderline personality disorder, meaning in life questionnaire, dissociative experiences, psychometric properties

Posted Date: October 5th, 2023

DOI: <https://doi.org/10.21203/rs.3.rs-3412217/v1>

License:   This work is licensed under a Creative Commons Attribution 4.0 International License. [Read Full License](#)

Abstract

This study analyzed the psychometric properties of the Meaning in Life Questionnaire (MLQ), one of the most important scales used to assess Meaning in Life (MiL), in a sample of Spanish people diagnosed with Borderline Personality Disorder (BPD). Participants were 102 Spanish people (72.55% women) from 18 years to 68 years old ($M = 37.69$; $SD = 12.66$) diagnosed with BPD, who completed the MLQ, Purpose in Life Test-10 Items (PIL-10), and Dissociative Experiences Scale II (DES-II). The bidimensional model for the MLQ showed adequate internal consistency and an excellent fit. The MLQ-P and MLQ-S scales correlated positively. The MLQ-P scale showed a positive correlation with the PIL-10 and a negative correlation with the DES-II. Introducing MiL into interventions with BPD patients can be a useful way to help them to find purpose in their lives, alleviate their existential suffering, and cope with the clinical symptomatology of BPD.

Introduction

According to Viktor Emil Frankl, the founder of logotherapy, the most important motivational aspect of human existence is the feeling that one's life is meaningful, and a lack of meaning can lead to experiencing an existential vacuum and a strong need for meaning in life (MiL) (e.g. Frankl, 2010; Martela & Steger, 2016). People who suffer from severe mental disorders find it difficult to experience MiL (e.g. Jun & Yun, 2020). Thus, enhancing MiL can be a powerful therapeutic tool to alleviate suffering in people diagnosed with severe mental disorders and help them to cope better with their mental disorder, live a more fulfilling life, experience well-being, and become more functional in several areas of their lives (e.g. Conner et al., 2022; Marco et al., 2020; Pérez et al., 2017; Steger, 2017, 2022). Therefore, it is important to have access to instruments with adequate psychometric properties to assess MiL in people diagnosed with mental disorders, in order to evaluate the inclusion of complementary therapeutic resources focused on MiL in the treatment (e.g. Wong, 2012).

Since the late 1960s, several instruments have been proposed to assess MiL (Brandstätter et al., 2012). One of them is the Meaning in Life Questionnaire (MLQ; Steger et al., 2006), a 10-item scale that assesses how people feel their lives are in terms of MiL (Presence of Meaning: MLQ-P) and how engaged and motivated people are in their efforts to find MiL (Search for Meaning: MLQ-S) (Steger et al., 2006). The items are rated on a 7-point Likert scale (1 = Absolutely untrue; 7 = Absolutely true), yielding a range from 5 to 35 for each scale. The higher the score, the stronger the presence of/search for meaning in life. Steger et al. (2006) found acceptable fit and reliability for the MLQ, as well as adequate convergent and discriminant validity. The MLQ can be a useful tool for both therapeutic and research activities (Steger & Shin, 2010). The presence of MiL is defined as the "sense made of, and significance felt, regarding the nature of one's being and existence" (Steger et al., 2006, 81), whereas the search for MiL is defined as the "strength, intensity and activity of people's desire and efforts to establish and/or augment their understanding of the meaning, significance and purpose of their lives" (Steger et al., 2008, 200). Steger et al. (2006) found that the MLQ-P and MLQ-S scales were relatively independent, and that the MLQ-P correlated positively and the MLQ-S correlated negatively with various measures of health and well-being.

Many studies have analyzed the psychometric properties of the MLQ in both non-clinical and clinical populations, confirming the reliability, factor structure, and convergent validity of this scale (Table 1). Some of these studies found a negative correlation between the MLQ-P and MLQ-S scales, whereas other studies have reported a positive correlation, probably due to the influence of sociocultural differences on MiL (e.g. Heintzelman & King, 2014). Likewise, most of these studies found positive correlations between the MLQ-P and several measures of MiL, satisfaction in life, psychological well-being, and positive affect, among others, whereas the MLQ-S was found to be negatively correlated with these measures. Only the Schulenberg et al. (2011) study was conducted with people diagnosed with mental disorders, none of whom were diagnosed with Borderline Personality Disorder (BPD).

Table 1
Studies that have analyzed the psychometric properties of the MLQ

Study	Sample (age range; M_{age} ; SD_{age})	Internal consistency	Internal consistency if any item was dropped	Correlation between MLQ-P and MLQ-S	Factor analysis	Convergent validity
Steger et al. (2006)	154 USA undergraduates (nr; 21.8; 3.9)	MLQ-P, α = .86 MLQ-S, α = .87	nr	-.19	CFA: 2-factor structure	MLQ-P: positive correlations with life satisfaction, positive emotions, intrinsic religiosity, extraversion, and agreeableness, and negative correlations with depression, negative emotions, and neuroticism. MLQ-S: positive correlations with neuroticism, depression, and negative emotions
Góngora et al. (2011)	707 Argentine adults (nr; 34.12; 12.43) and 180 Argentine adolescents (13–18; 15.58; 1.58)	Adult sample: MLQ-P, α = .82 by removing Item 9 (.80 with Item 9) MLQ-S, α = .88 Adolescents sample: MLQ-P, α = .78 (.80 by removing Item 9) MLQ-S, α = .81	nr	Adult sample: -.23 Adolescents sample: -.11	EFA: 2-factor model CFA: the model improved by removing Item 9	MLQ-P: positive correlations with life satisfaction and satisfaction in several vital domains (e.g. health, personal relationships, among others). MLQ-S: negative correlations with these variables
Schulenberg et al. (2011)	96 people diagnosed with severe mental illness in an inpatient setting (18–69; 44.2; 12.2)	MLQ-P, α = .81 MLQ-S, α = .90	nr	.12 (ns)	nr	MLQ-P: negative, non-significant correlation with the Brief Symptom Inventory. MLQ-S: positive, significant correlation with the Brief Symptom Inventory

Study	Sample (age range; M_{age} ; SD_{age})	Internal consistency	Internal consistency if any item was dropped	Correlation between MLQ-P and MLQ-S	Factor analysis	Convergent validity
Chan (2014)	223 Hong Kong Chinese caregivers of patients with chronic illness (18–87; 54.7; 14.2)	MLQ-P, α = .84 MLQ-S, α = .88	nr	.47	CFA: the original 2-factor structure was confirmed	nr
Temane et al. (2014)	326 South African undergraduates (18–54; 21; 4.08)	MLQ-P, α = .85 MLQ-S, α = .84	nr	– .20	CFA: the original 2-factor structure was confirmed	MLQ-P: positive correlations with mental health, satisfaction with life, sense of coherence and spiritual well-being. MLQ-S: positive correlation with depression
Avellar et al. (2015)	Study 1: 414 Brazilians undergraduates (18–63; 28.2; 9.50) Study 2: 201 Brazilians undergraduates (18–63; 26.7; 9.56)	MLQ-P, α = .85 MLQ-S, α = .89	nr	– .29	CFA: the original 2-factor structure was confirmed	MLQ-P: negative correlation with existential vacuum. MLQ-S: positive correlation with existential vacuum
Damásio and Koller (2015)	3020 Brazilian people (18–91; 33.92; 15.01)	MLQ-P, α = .90 MLQ-S, α = .90	nr	– .03 (ns)	EFA + CFA: the 2-factor structure was confirmed MLQ-P MLQ-S scales: better goodness of-fit indexes when evaluated uncorrelated	MLQ-P: positive correlation with life satisfaction, subjective happiness, life orientation, and negative correlation with pessimism. MLQ-S: negative correlation with life satisfaction, subjective happiness, life orientation, and positive correlation with pessimism

Study	Sample (age range; M_{age} ; SD_{age})	Internal consistency	Internal consistency if any item was dropped	Correlation between MLQ-P and MLQ-S	Factor analysis	Convergent validity
Hallford et al. (2018)	341 earlier older-adults (65–73; 68.5; 2.3) 341 later older-adults (74–92; 78.6; 4.5)	MLQ-P, α = .86 MLQ-S, α = .92			CFA: Items 9 (MLQ-P) and 10 (MLQ-S) were removed	MLQ-P: positive correlations with life satisfaction, well-being across a range of domains, and psychological resources. MLQ-S: negative correlations with these variables, but to a lesser degree in later older-adults
Damásio et al. (2016)	3020 Brazilian people (18–91; 33.92; 15.01)	MLQ-P, α = .90	nr	nr	CFA: the original MLQ-P scale showed an adequate fit	nr
Schutte et al. (2016)	601 adults from South Africa, Australia, and New Zealand (30–60; 44.11–44.62; 8.53–8.85)	MLQ-P, α = .85-.90 MLQ-S, α = .91-.94	nr	nr	nr	nr
Singh et al. (2016)	826 Hindi people (18–60; 29.44; 12.82)	MLQ-P, α = .78 MLQ-S, α = .81	nr	.36	EFA + CFA: the original 2-factor structure was confirmed	MLQ-P: positive correlation with both balance affect, positive affect and flourishing, and negative correlation with negative affect. MLQ-S: negative correlation with balance affect and positive correlation with negative affect
Rose et al. (2017)	135 Australian adolescents (12–18; 15.18; 1.42)	MLQ-P, α = .82 MLQ-S, α = .84	nr	.13 (ns)	CFA: the original 2-factor structure was confirmed	

Study	Sample (age range; M_{age} ; SD_{age})	Internal consistency	Internal consistency if any item was dropped	Correlation between MLQ-P and MLQ-S	Factor analysis	Convergent validity
Chika et al. (2018)	809 internally displaced persons in Nigeria (12–96; 33.69; 13.18)	MLQ-P, α = .82 MLQ-S, α = .86	nr	.72	CFA: the original 2-factor structure was confirmed	
Cavazos et al. (2017)	330 Latina/o college students (18–54; 20.45; 3.89)	MLQ-P, α = .92 MLQ-S, α = .90	nr	nr	CFA: the original 2-factor structure was confirmed	nr
Balgiu (2020)	320 Romanian undergraduates (18–29; 19.29; 1.42)	MLQ-P, α = .79 MLQ-S, α = .85	nr	.17	EFA-CFA: the original 2-factor structure was confirmed	MLQ-P: moderate positive correlations with well-being, positive affect, flourishing, reverse correlation with negative affect, and weak correlations with subjective well-being. MLQ-S: significant positive weak correlation with negative affect and a negative correlation with balance affect
Naghiyae et al. (2020)	301 Iranian patients undergoing treatment for cancer and multiple sclerosis (20–70; nr; nr)	MLQ-P, α = .84 MLQ-S, α = .88		.61	EFA + CFA: the original 2-factor structure was confirmed	nr

Study	Sample (age range; M_{age} ; SD_{age})	Internal consistency	Internal consistency if any item was dropped	Correlation between MLQ-P and MLQ-S	Factor analysis	Convergent validity
Negri et al. (2020)	464 Italian adults (20–60; 39.34; 10.86)	Sample 1 (EFA, $N=232$): MLQ-P, $\alpha = .86$ MLQ-S, $\alpha = .90$	nr	– .40 (EFA Sample) – .49 (CFA, Sample 2)	EFA + CFA: the original 2-factor structure was confirmed	MLQ-P: moderate to large positive correlations with satisfaction with life, positive affect, and mental health, low positive correlations with extraversion and conscientiousness, and low to moderate negative correlations with negative affect and neuroticism. MLQ-S: low positive correlations with negative affect and neuroticism, and low to medium negative correlations with satisfaction with life and mental health
Chen and Gao (2021)	1951 Chinese adolescents (12–18; 13.47; 1.31)	MLQ-P, $\alpha = .76$ MLQ-S, $\alpha = .85$	nr	.36	nr	nr
Daep and Yuen (2022)	1089 Hong Kong secondary school students (nr; 14.88; .99)	MLQ-P, $\alpha = .84$ MLQ-S, $\alpha = .88$	nr	.40	CFA: the original 2-factor structure was confirmed	Both MLQ-P and MLQ-S: positive correlation with life satisfaction, connectedness to parents, school, peers, and teachers. MLQ-S: more strongly associated with all connectedness dimensions than MLQ-P

Study	Sample (age range; M_{age} ; SD_{age})	Internal consistency	Internal consistency if any item was dropped	Correlation between MLQ-P and MLQ-S	Factor analysis	Convergent validity
Marco et al. (2022)	683 Spanish people (18–83; 35.05; 13.72)	MLQ-P, α = .87 MLQ-S, α = .892	nr	.19	CFA: the original 2-factor structure was confirmed	MLQ-P: positive correlations with purpose in life, life satisfaction and vital goals, and negative correlation with depression ($r = -.495$). MLQ-S: positive correlation with anxiety, somatization, and depression, and negative correlations with purpose in life, life satisfaction and vital goals, and negative correlations with anxiety and somatization
Travezaño-Cabrera et al. (2022)	581 Peruvian undergraduates (18–35; 22.6; 3.3)	MLQ-P, α = .86, ω = .87 MLQ-S, α = .88, ω = .88	nr	– .15	CFA: Item 9 was removed A 9-item 2-factor structure was obtained	MLQ-P: positive correlation with life satisfaction and well-being, and negative correlation with depression. MLQ-S: not significant correlation with life satisfaction and well-being, and positive correlation with depression

Note. nr = Not reported; ns = Non-significant; EFA = Exploratory Factor Analysis; CFA = Confirmatory Factor Analysis.

Table 1

The present study aimed to analyze the structural validity, internal consistency, and construct validity of this scale in a sample of Spanish people diagnosed with BDP. As far as we know, no studies have analyzed the psychometric properties of the MLQ in people diagnosed with BPD, by which the present study is a novelty to the analysis of the psychometric properties of that instrument.

Method

Participants

Participants were 102 Spanish patients diagnosed with BPD who were recruited from three outpatient mental health services (Fig. 1). A clinical psychologist from the research team that carried out the present study established the diagnoses in the outpatient medical services by using the *Structured Clinical Interview for DSM-5 Disorders-Clinician Version* (SCID-5-CV; First et al., 2016). Participants were excluded if they had moderate or severe intellectual disability.

Figure 1

Instruments

Meaning in Life Questionnaire (MLQ; Steger et al., 2006). The MLQ was translated following the guidelines provided by the International Test Commission (2010). First, two Spanish university professors who are proficient in English and specialists in logotherapy independently translated the English version of the MLQ (which is available at http://www.michaelfsteger.com/?page_id=13) into Spanish. Then, the authors of this study revised both translations, resulting in a version that was finally revised and improved by a native English-speaking professional translator, text editor, and bilingual consultant. The final translation was used in this study. This Spanish version of the MLQ scales showed good internal consistency in this study: MLQ-P, $\omega = .85$, 95% CI [.80, .89] and MLQ-S, $\omega = .83$, 95% CI [.77, .88].

Purpose in Life Test-10 Items (PIL-10; García-Alandete et al., 2013). This scale is a 10-item Spanish adaptation of the PIL (Crumbaugh & Maholic, 1969), which assesses MiL (satisfaction and meaning in life and purposes and goals in life) based on logotherapeutic assumptions. In this study, the PIL-10 showed excellent internal consistency, $\omega = .95$, 95% CI [.93, .96].

Dissociative Experiences Scale II (DES-II; Carlson & Putman, 1993). The Spanish adaptation by Icarán et al. (1996) was used. The DES-II is a self-reported 28-item scale that assesses different types of dissociative phenomena (amnesia, depersonalization/derealization, and absorption) on a scale from 0–100%. In this study the DES-II showed excellent internal consistency, $\omega = .94$, 95% CI [.92, .95].

Statistical Analyses

Means, standard deviations, skewness, kurtosis, item-scale correlations, and the change in the McDonald's ω of the MLQ if any item was dropped were calculated. Although the internal consistency of the MLQ-P scale improved by removing Item 9 (*My life has no clear purpose*), we decided to retain it following Steger et al.'s (2006) suggestion.

Then, Confirmatory Factor Analysis of the MLQ was carried out. The sample size in the present study was sufficient to make statistical inferences about the model fit of the MLQ ($n/p = 10.2$) (Pituch & Stevens, 2015). Because Mardia's coefficient for multivariate kurtosis (normalized estimate) was > 5 and the data were ordinal, robust method and Diagonally Weighted Least Squares estimators were used (e.g. Mindrila, 2010). The fit indices used were Chi-Square (χ^2), the Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) (values $\geq .90$ indicate acceptable fit, and values $\geq .95$ indicate good model fit), and the Root Mean Square Error of Approximation (RMSEA; values $\leq .08$ indicate acceptable model fit, and values $\leq .05$ indicate good model fit) (e.g. Kline, 2016).

To report the construct validity of the MLQ, the correlations with the PIL-10 and the DES-II were analyzed. Because these scales are ordinal, Spearman's rho (ρ) was used for the correlations. Interpretation of effect sizes was based on Cohen (1988).

To carry out all the statistical analyses mentioned in this section, the JASP 0.16 software (JASP Team, 2021) was used. The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

Procedure

This study was approved by the Research Ethics Committee of the Health Department of the Hospital Universitario de la Ribera de Alzira (Comunidad Valenciana, Spain). The patients/participants provided their written informed consent to participate in this study. The ethical standards for research involving human subjects and the 2013 revised Helsinki statement standards were met.

Participants were assessed individually at the above-mentioned health outpatient services and diagnosed using *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* (APA, 2013) criteria for BPD. The inclusion criteria were that participants had to be male or female, aged ≥ 18 years old, and satisfy the DSM-5 criteria for a BPD. The exclusion criterion was being diagnosed with psychosis or moderate/severe intellectual disability. The informed consent was administered and signed prior to the assessment, and participants did not receive any compensation for their participation. The 2013 revised Helsinki statement standards were met.

Results

Descriptive statistics, internal consistency, and correlations of the MLQ

Table 2 shows descriptive statistics, item-total correlations, and changes in ω of the MLQ scales if any item was dropped. The mean for the MLQ-P was 17.75 ($SD = 7.85$), and for the MLQ-S the mean was 23.12 ($SD = 7.26$). The item-total correlations were $> .60$ for the MLQ-P (except the correlation for Item 9, which was below $.40$) and $> .40$ for the MLQ-S.

Table 2

Descriptive statistics, item-total correlations, and internal consistency if any item was dropped from the MLQ

MLQ scale and items	<i>M</i> (<i>SD</i>)	<i>Sk</i>	<i>K</i>	Item-scale correlation*	MLQ scale ω if item dropped
MLQ-P $\omega = .85$ [.80, .89]	17.75 (7.85)	.27	-.66		
1. I understand my life's meaning	3.58 (1.79)	.26	-.65	.62 (S)	.82
4. My life has a clear sense of purpose	3.13 (2.03)	.52	-.92	.80 (S)	.77
5. I have a good sense of what makes my life meaningful	3.91 (2.01)	-.04	-1.19	.69 (S)	.80
6. I have discovered a satisfying life purpose	3.50 (2.13)	.26	-1.24	.71 (S)	.80
<i>9. My life has no clear purpose</i>	3.64 (2.17)	.33	-1.20	.39 (I)	.87
MLQ-S $\omega = .83$ [.77, .88]	23.12 (7.26)	-.30	-.54		
2. I am looking for something that makes my life feel meaningful	4.98 (1.71)	-.90	.15	.45 (I)	.84
3. I am always looking to find my life's purpose	4.64 (1.92)	-.50	-.82	.60 (S)	.82
7. I am always searching for something that makes my life feel significant	4.50 (1.89)	-.41	-.86	.71 (S)	.76
8. I am seeking a purpose or mission for my life	4.64 (1.88)	-.45	-.77	.67 (S)	.78
10. I am searching for meaning in my life	4.36 (2.09)	-.36	-1.14	.65 (S)	.77
<i>Note.</i> MLQ = Meaning in Life Questionnaire; MLQ-P = Presence of Meaning; MLQ-S = Search for Meaning. In Italics, reverse-coded item. Standard Error of skewness = .24. Standard Error of kurtosis = .47. In brackets, the 95% confidence interval.					
* In parentheses, the effect size according to Cohen (1988): S = Strong, I = Intermediate.					

Table 2

Internal consistency of the MLQ

As noted above, both the MLQ-P and MLQ-S scales showed high internal consistency, $\omega = .85$, 95% CI [.80, .89] and $\omega = .83$, 95% CI [.77, .88], respectively. The internal consistency of the MLQ-P would improve by removing Item 9.

Structural validity of the MLQ

The bidimensional model for the MLQ showed an excellent fit, $\chi^2_{(34)} = 39.16$, $p = .25$, CFI = .99, TLI = .99, RMSEA = .04 (95% CI [.00, .09]). All parameters were significant at the level of .05 (Fig. 2). The standardized loadings of the items on their respective scales were above .5, except for Item 9 ($\lambda = .38$). The MLQ-P and MLQ-S scales correlated positively, $r = .42$, $p < .001$ (intermediate effect size, according to Cohen, 1988).

Figure 2

Convergent and divergent validity of the MLQ

The MLQ-P showed a strong positive and significant correlation with the PIL-10 and a strong negative and significant correlation with the DES-II. The MLQ-S showed an intermediate positive correlation with the PIL-10 and a small negative and significant correlation with the DES-II (Table 3).

Table 3
Correlations between the MLQ and the PIL-A and DES-II

	PIL-10	DES-II
MLQ-P	.71*** (ST)	-.51*** (ST)
MLQ-S	.38*** (I)	-.12*** (SM)

Note. MLQ-P = Presence of Meaning; MLQ-S = Search for Meaning; PIL-10 = Purpose in Life-10 Items; DES-II = Dissociative Experiences Scale II. In parentheses, the effect size according to Cohen (1988): ST = Strong; I = Intermediate; SM = Small.

*** $p < .001$

Table 3

Discussion

The aim of the present study was to analyze the factorial validity and other psychometric properties of the MLQ in a sample of Spanish people diagnosed with BDP.

Internal consistency of the MLQ

The MLQ scales showed good internal consistency, as in previous studies. The internal consistency of the MLQ-P scale improved by removing Item 9 (*My life has no clear purpose*), $\Delta\omega = .02$. However, because the increase in the omega coefficient was not substantial, we decided to retain Item 9, following Steger et al.'s (2006) suggestion, in order to maintain the internal consistency of the MLQ-P. Item 9 is the only reverse-coded item on the MLQ-P, and so it is possible that the negative wording of this item made it difficult to understand.

Structural validity of the MLQ

The two-factor 10-item model for the MLQ proposed by Steger et al. (2006) showed excellent fit indices in the present study, with CFI and TLI indices $> .95$ and a RMSEA index $< .05$. However, it must be noted that Item 9 (*My life has no clear purpose*) showed a low factor loading on the MLQ-P scale, $\lambda < .40$. Previous studies (e.g. Chika et al., 2018; Hallford et al., 2018; Schutte et al., 2016) suggested that this item should be removed from the MLQ. As noted above, it would be interesting to word Item 9 in a positive sense and analyze the effect on the psychometric properties of the MLQ.

Correlation between Presence of/Search for Meaning

In this study, a positive and significant correlation between the MLQ-P and MLQ-S scales was found. In our study, the sample was composed of patients diagnosed with BPD. The positive correlation between the presence of MiL and the search for MiL in the present study should be considered along with the mean scores of the sample, which were below 24 on both the MLQ-P and MLQ-S scales (Steger, 2010).

The participants in this study, who were all patients diagnosed with BPD, experienced low presence of meaning and, at the same time, low motivation to search for meaning. In this case, paraphrasing Steger (2010), people (1) probably do not feel that their life has a valued meaning and purpose and are not actively exploring or seeking meaning in their life; (2) probably do not find it very interesting or important to thinking about their life's meaning; (3) may not always be satisfied with their lives or themselves; (4) might not be particularly optimistic about the future; (5) may not experience emotions like love and joy very often; (6) may feel anxious, nervous, sad, or depressed; (7) are likely to value stimulating, exciting experiences; and (8) can probably be described as disorganized, nervous, or tense, and not particularly socially active or warm towards others.

These are characteristics of people diagnosed with BPD. Therefore, it is not uncommon for individuals diagnosed with BPD to score low on both the MLQ-P and MLQ-S scales due to their psychopathology (American Psychological Association, 2013).

Convergent and divergent validity

Both the MLQ-P and MLQ-S scales showed a positive correlation with the PIL-10 and a negative correlation with the DES-II. That is, both of the MLQ scales correlated positively with a measure of MiL and negatively with a psychopathological measure, which is consistent with the positive correlation between presence of meaning and search for meaning found in this study.

The nuance is that the correlations with both the MiL measure and the dissociation measures were stronger for presence of MiL (MLQ-P) than for search for MiL (MLQ-S), which would be expected considering what each MLQ scale specifically measures (Steger et al., 2006, 2008).

Clinical implications

As many researchers have proposed (e.g. George & Park, 2016), an essential dimension of MiL is having a goal, purpose, or mission in life. People diagnosed with BPD have difficulty finding purpose in life (Marco, Pérez, et al., 2017), which in turn leads to a worsening of their symptoms and an intense experience of discomfort and hopelessness.

Introducing MiL into the intervention with BPD patients can be a useful way to help them to find meaning in their lives and alleviate their existential suffering. Despite suffering from a severe mental disorder such as BPD, life still has meaning, and it is possible to experience life satisfaction, set and pursue meaningful goals, and relate to reality, especially to other people, in a positive, constructive, and satisfying way.

Likewise, experiencing MiL can be a strong activator of motivation to cope with the symptomatology of mental disorders (e.g. Conner et al., 2022; Gross et al., 2019; Kelso et al., 2020; Marco et al., 2016, 2020; Marco & Alonso, 2019; Pérez et al., 2017; Sun et al., 2022), and it can improve the results of psychotherapeutic interventions for people diagnosed with mental disorders (e.g. Fulford et al., 2020; Schulenberg et al., 2008; Sun et al., 2021). In BPD patients, MiL has been found to moderate and buffer the association between suicide risk factors and hopelessness (Marco, Guillén, et al., 2017).

Regarding psychotherapy for people diagnosed with BPD, a useful strategy would be to combine Dialectical-Behavioral Therapy (DBT) (Lungu & Linehan, 2017), which is currently the main treatment for BPD, with Meaning-Centered Counseling and Therapy (MCCT) (Wong, 2012). MiL might be a motivational key to the integration of the acceptance and change needed to improve the DBT intervention and help patients to cope with the severe symptomatology of BPD. To our knowledge, this proposal of combining DBT with MCCT has not yet been put into practice, and so it may be an interesting challenge for researchers dedicated to improving therapeutic procedures for patients diagnosed with BPD.

Limitations of the present study and suggestions for further research

One limitation of this study consisted of the sample size and the differences in participants' sociodemographic variables, such as gender. Future studies should use larger samples that are more balanced in terms of participants' sociodemographic characteristics.

It would also be advisable to carry out studies with large and balanced subsamples of mental disorders. It would also be interesting to analyze the psychometric properties of the MLQ in other clinical populations (e.g. people with disabilities), in order to analyze the invariance of this scale in all these populations, as well as their differences in MiL.

It would be particularly interesting to check whether wording Item 9 in a positive sense would produce significant changes in the psychometric properties of the MLQ. In light of the results of the present study and those obtained in previous studies, we hypothesize that both the internal consistency and structural validity of the MLQ-P scale would improve.

In this study, a significant correlation was obtained between the MLQ-9 and the DES. Thus, it would be interesting to conduct studies to test whether MiL has a positive influence on the negative emotional experiences of BPD patients (e.g. the higher the MiL, the lower the distress). Likewise, it would be interesting to use measures of patients' BPD-specific psychopathological characteristics, such as disturbance of identity, impulsivity, anxiety, dissociative symptoms, or stress-related paranoia, among others.

Declarations

Conflict of interest

The authors report that there are no competing interests to declare.

References

1. American Psychological Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders: DSM-5* (5th ed.). American Psychiatric Publishing.
2. Avellar, T. A., Gouveia V., Alves, A., Bento, T. D., de Meneses, A., de Araújo, G., & Fernandes, A. S. (2015). Questionário de Sentido de Vida: Evidências de sua Validade Fatorial e Consistência Interna [Meaning in Life Questionnaire: Factorial validity and internal consistency]. *Psicologia: Ciência e Profissão*, *35*(1), 4–19. <https://doi.org/10.1590/1982-3703001332012>
3. Brandstätter, M., Baumann, U., Borasio, G. D., & Fegg, M. J. (2012). Systematic review of meaning in life assessment instruments. *Psycho-Oncology*, *27*(10), 10341052. <https://doi.org/10.1002/pon.2113>
4. Cavazos, J., Ikonopoulou, J., Lenz, A. S., Hinojosa, Y., & Saldana, K. (2017). Evaluation of the Meaning in Life Questionnaire and Dispositional Hope Scale With Latina/o Students. *The Journal of Humanistic Counseling*, *56*(3), 166–179. <https://doi.org/10.1002/johc.12051>
5. Chan, W. C. H. (2014). Factor structure of the Chinese version of the meaning in life questionnaire among Hong Kong Chinese caregivers. *Health and Social Work*, *39*(3), 135–143. <https://doi.org/10.1093/hsw/hlu025>
6. Chika, J., Ekpedoho, E. A., Ifeagwazi, C. M., Iorfa, S. K., Nwonyi, S. K. (2018). Psychometric properties of the Meaning in Life Questionnaire-Hausa version among internally displaced persons in Nigeria. *Transcultural Psychiatry*, *56*(1),

103–122. <https://doi.org/10.1177/1363461518794218>

7. Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Erlbaum.
8. Conner, B. T., Kentopp, S. D., O'Donnell, M. B., Wallace, G. T., Morse, J. L., Arkfeld, P. A., Steger, M. F., & Rebecca, R. (2022). Meaning in Life Moderates Relations between Personality and Temperament and Nonsuicidal Self-Injury in Hospitalized Adolescents. *Journal of Youth and Adolescence*, *51*(8), 1622–1635. <https://doi.org/10.1007/s10964-022-01615-3>
9. Crumbaugh, J. C., & Maholick, L. T. (1969). *Manual of instructions for the Purpose in Life Test*. Viktor Frankl Institute of Logotherapy.
10. Daep, J. A., & Yuen, M. (2022). Factorial validity of meaning in life questionnaire in Hong Kong secondary school students: A construct validation approach. *Counselling Psychology Quarterly*, *35*, 467–480. <https://doi.org/10.1080/09515070.2021.1875989>
11. Damásio, B. F., & Koller, S. H. (2015). Meaning in Life Questionnaire: Adaptation process and psychometric properties of the Brazilian version. *Revista Latinoamericana de Psicología*, *47*(3), 185–195. <https://doi.org/10.1016/j.rlp.2015.06.004>
12. Damásio, B. F., Hauck-Filho, N., & Koller, S. (2016). Measuring Meaning in Life: An Empirical Comparison of Two Well-Known Measures. *Journal of Happiness Studies*, *17*, 431–445. <https://doi.org/10.1007/S10902-014-9602-8>
13. First, M. B., Williams, J. B. W., Karg, R. S., & Spitzer, R. L. (2016). *Structured Clinical Interview for DSM-5® Disorders SCID-5-CV. Clinician Version User's Guide*. American Psychiatric Association.
14. Frankl, V. E. (2010). *The Feeling of Meaninglessness: A Challenge to Psychotherapy and Philosophy*. Marquette University Press.
15. García-Alandete, J., Rosa, E., & Sellés, P. (2013). Estructura factorial y consistencia interna de una versión española del Purpose-In-Life Test [Factorial structure and internal consistency of a Spanish version of the Purpose-In-Life Test]. *Universitas Psychologica*, *12*(2), 517–530. <https://doi.org/10.11144/Javeriana.upsy12-2.efci>
16. George, L. S., & Park, C. L. (2016). Meaning in Life as Comprehension, Purpose, and Mattering: Toward Integration and New Research Questions. *Review of General Psychology* *20*(3), 205–220. <https://doi.org/10.1037/gpr0000077>
17. Gross, G. M., Laws, H., Park, C. L., Hoff, R., & Hoffmireef, C. A. (2019). Meaning in life following deployment sexual trauma: Prediction of posttraumatic stress symptoms, depressive symptoms, and suicidal ideation. *Psychiatry Research*, *278*, 78–85. <https://doi.org/10.1016/j.psychres.2019.05.037>
18. Hallford, D. J., Mellor, D., Cummins, R. A., & McCabe, M. P. (2018). Meaning in Life in Earlier and Later Older-Adulthood: Confirmatory Factor Analysis and Correlates of the Meaning in Life Questionnaire. *Journal of Applied Gerontology*, *37*(10), 1270–1294. <https://doi.org/10.1177/0733464816658750>
19. Heintzelman, S. J., & King, L. A. (2014). (The feeling of) meaning-as-information. *Personality and Social Psychology Review*, *18*, 153–167. <http://dx.doi.org/10.1177/1088868313518487>
20. Icarán, E. M., Colom, R., & Orengo, F. (1996). Experiencias disociativas: Una escala de medida [Dissociative experiences: An assessment scale]. *Anuario de Psicología*, *70*, 69–84.
21. International Test Commission. (2010). *International Test Commission Guidelines for Translating and Adapting Tests*. https://www.intestcom.org/files/guideline_test_adaptation_2ed.pdf
22. JASP Team. (2021). *JASP (Version 0.16)* [Computer Software]. <https://jasp-stats.org/>
23. Jun, W. H., & Yun, S. H. (2020). Mental health recovery among hospitalized patients with mental disorder: Associations with anger expression mode and meaning in life. *Archives of Psychiatric Nursing*, *34*, 134–140. <https://doi.org/10.1016/j.apnu.2020.03.001>
24. Kelso, K. C., Kashdan, T. B., Imamoglu, A., & Ashraf, A. (2020). Meaning in life buffers the impact of experiential avoidance on anxiety. *Journal of Contextual Behavioral Science*, *16*, 192–198.

<https://doi.org/10.1016/j.jcbs.2020.04.009>

25. Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling* (4th ed.). Guilford.
26. Lungu, A., & Linehan, M. M. (2017). Dialectical behavior therapy: Overview, characteristics, and future directions. In S. G. Hofmann & G. J. G. Asmundson, (Eds.), *The Science of Cognitive Behavioral Therapy* (pp. 429–459). Academic Press.
27. Marco, J. H., & Alonso, S. (2019). Meaning in life buffers the association between clinical anxiety and global maladjustment in participants with common mental disorders on sick leave. *Psychiatry Research*, *271*, 548–553. <https://doi.org/10.1016/j.psychres.2018.12.027>
28. Marco, J. H., Cañabate, M., Llorca, G., & Pérez, S. (2020). Meaning in life moderates hopelessness, suicide ideation, and borderline psychopathology in participants with eating disorders: A longitudinal study. *Clinical Psychology and Psychotherapy*, *27*(2), 146–158. <https://doi.org/10.1002/cpp.2414>
29. Marco, J. H., Guillén, V., & Botella, C. (2017). The buffer role of meaning in life in hopelessness in women with borderline personality disorders. *Psychiatry Research*, *247*, 120–124. <https://doi.org/10.1016/j.psychres.2016.11.011>
30. Marco, J. H., Pérez, S., & García-Alandete, J. (2016). Meaning in Life Buffers the Association Between Risk Factors for Suicide and Hopelessness in Participants With Mental Disorders. *Journal of Clinical Psychology*, *72*(7), 689–700. <https://doi.org/10.1002/jclp.22285>
31. Marco, J. H., Pérez, S., García-Alandete, J., & Moliner, R. (2017). Meaning in Life in People with Borderline Personality Disorder. *Clinical Psychology and Psychotherapy*, *24*(1), 162–170. <https://doi.org/10.1002/cpp.1991>
32. Marco, J. H., Privado, J., Guillen, V., Quero, S., Pérez, S., Baños, R., & Tormo, P. (2022). Psychometric Properties of the Spanish Version of the Meaning in Life Questionnaire in adult Spanish participants. *Psicología Conductual/Behavioral Psychology*, *30*(3), 809–826. <https://doi.org/10.51668/bp.8322313s>
33. Martela, F., & Steger, M. F. (2016). The three meanings of meaning in life: Distinguishing coherence, purpose, and significance. *The Journal of Positive Psychology*, *11*(5), 531–545. <https://doi.org/10.1080/17439760.2015.1137623>
34. Mindrila, D. (2010). Maximum Likelihood (ML) and Diagonally Weighted Least Squares (DWLS) Estimation Procedures: A Comparison of Estimation Bias with Ordinal and Multivariate Non-Normal Data. *International Journal of Digital Society*, *1*(1), 60–66. <https://doi.org/10.20533/ijds.2040.2570.2010.0010>
35. Naghiyae, M., Bahmani, B., & Asgari, A. (2020). The Psychometric Properties of the Meaning in Life Questionnaire (MLQ) in Patients with Life-Threatening Illnesses. *The Scientific World Journal*, 8361602. <https://doi.org/10.1155/2020/8361602>
36. Negri, L., Bassi, M., & Delle Fave, A. (2020). Italian Validation of the Meaning in Life Questionnaire: Factor Structure, Reliability, Convergent, and Discriminant Validity. *Psychological Reports*, *123*(2), 578–600. <https://doi.org/10.1177/0033294118821302>
37. Pérez, S., Marco, J. H., & García-Alandete, J. (2017). The role of hopelessness and meaning in life in a clinical sample with non-suicidal self-injury and suicide attempts. *Psicothema*, *29*(3), 323–328. <https://doi.org/10.7334/psicothema2016.284>
38. Pituch, K. A., & Stevens, J. P. (2015). *Multivariate Statistics for the Social Sciences: Analyses with SAS and IBM's SPSS* (6th Ed.). Routledge
39. Rose, L. M., Zask, A., & Burton, L. J. (2017). Psychometric properties of the meaning in life questionnaire (MLQ) in a sample of Australian adolescents. *International Journal of Adolescence and Youth*, *22*(1), 68–77. <https://doi.org/10.1080/02673843.2015.1124791>

40. Schulenberg, S. E., Hutzell, R., Nassif, C., & Rogina, J. (2008). Logotherapy for clinical practice. *Psychotherapy*, *45*(4), 447–463. <https://doi.org/10.1037/a0014331>
41. Schulenberg, S. E., Strack, K. M., & Buchanan, E. M. (2011). The Meaning In Life Questionnaire: Psychometric properties with individuals with serious mental illness in an inpatient setting. *Journal of Clinical Psychology*, *67*(12), 1210–1219. <https://doi.org/10.1002/jclp.20841>
42. Schutte, L., Wissing, M. P., Ellis, S. M., Jose, P. E., & Vella-Brodrick, D. A. (2016). Rasch analysis of the Meaning in Life Questionnaire among adults from South Africa, Australia, and New Zealand. *Health and Quality of Life Outcomes*, *14*(12), 1–15. <https://doi.org/10.1186/s12955-016-0414-x>
43. Steger, M. F. (2010). *The Meaning in Life Questionnaire*. <http://www.michaelfsteger.com/wp-content/uploads/2013/12/MLQ-description-scoring-and-feedback-packet.pdf>
44. Steger, M. F. (2017). Meaning in Life and Wellbeing. In M. Slade, L. Oades & A. Jarden (Eds.), *Wellbeing, Recovery and Mental Health* (pp. 75–85). Cambridge University Press. <https://doi.org/10.1017/9781316339275.008>
45. Steger, M. F. (2022). Meaning in life is a fundamental protective factor in the context of psychopathology. *World Psychiatry: Official Journal of the World Psychiatric Association*, *21*(3), 389–390. <https://doi.org/10.1002/wps.20916>
46. Steger, M. F., & Shin, J. Y. (2010). The relevance of the Meaning in Life Questionnaire to therapeutic practice: A look at the initial evidence. *International Forum for Logotherapy*, *33*(2), 95–104.
47. Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the Presence of and Search for Meaning in Life. *Journal of Counseling Psychology*, *53*(1), 80–93. <https://doi.org/10.1037/0022-0167.53.1.80>
48. Sun, F. K., Chiu, N. M., Yao, Y., Wu, M. K., Hung, C. F., Chen, C. C., Lee, Y. H., & Chiang, C. Y. (2021). The effects of logotherapy on meaning in life, depression, hopelessness, and suicidal ideation, in patients with depression: An intervention study. *Perspectives in Psychiatric Care*. Advance online publication. <https://doi.org/10.1111/ppc.13003>
49. Sun, F-K., Wu, M-K., Yao, Y., Chiang, C-Y., & Lu, C-Y. (2022). Meaning in life as a mediator of the associations among depression, hopelessness and suicidal ideation: A path analysis. *Journal of Psychiatric and Mental Health Nursing*, *29*, 57–66. <https://doi.org/10.1111/jpm.12739>
50. Travezaño-Cabrera, A., Vilca, L. W., Quiroz-Becerra, J., Huerta, S. L., Delgado-Vallejos, R., & Caycho-Rodríguez, T. (2022). Meaning of life questionnaire (MLQ) in Peruvian undergraduate students: study of its psychometric properties from the perspective of classical test theory (CTT). *BMC Psychology*, *10*, 206. <https://doi.org/10.1186/s40359-022-00913-6>
51. Wong, P. T. P. (2012). From Logotherapy to Meaning-Centered Counseling and Therapy. In P. T. P. Wong (Ed.), *The Human Quest for Meaning: Theories, Research, and Applications* (2nd ed., pp. 619–647). Routledge.

Figures

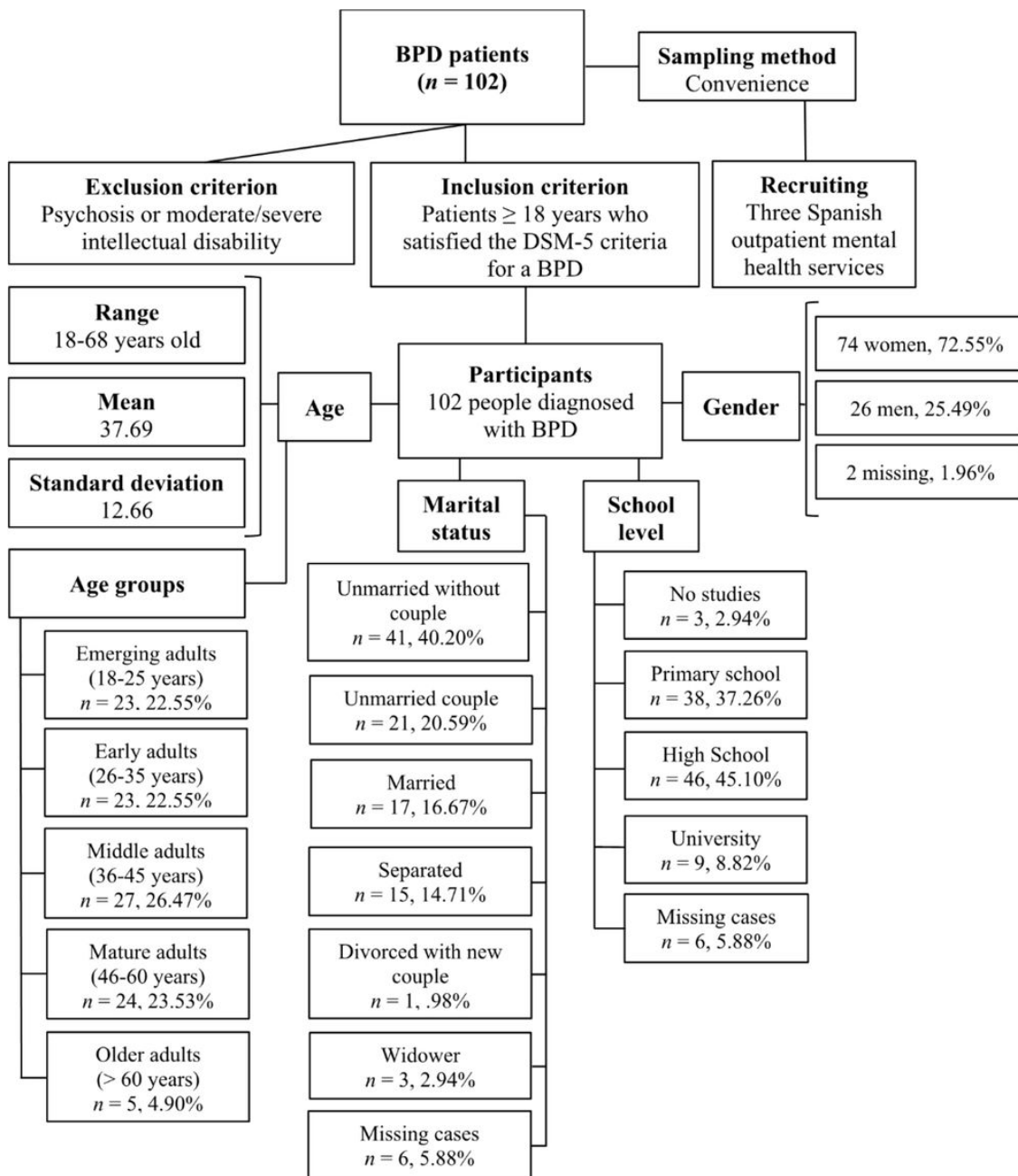


Figure 1

Flow diagram of the participants

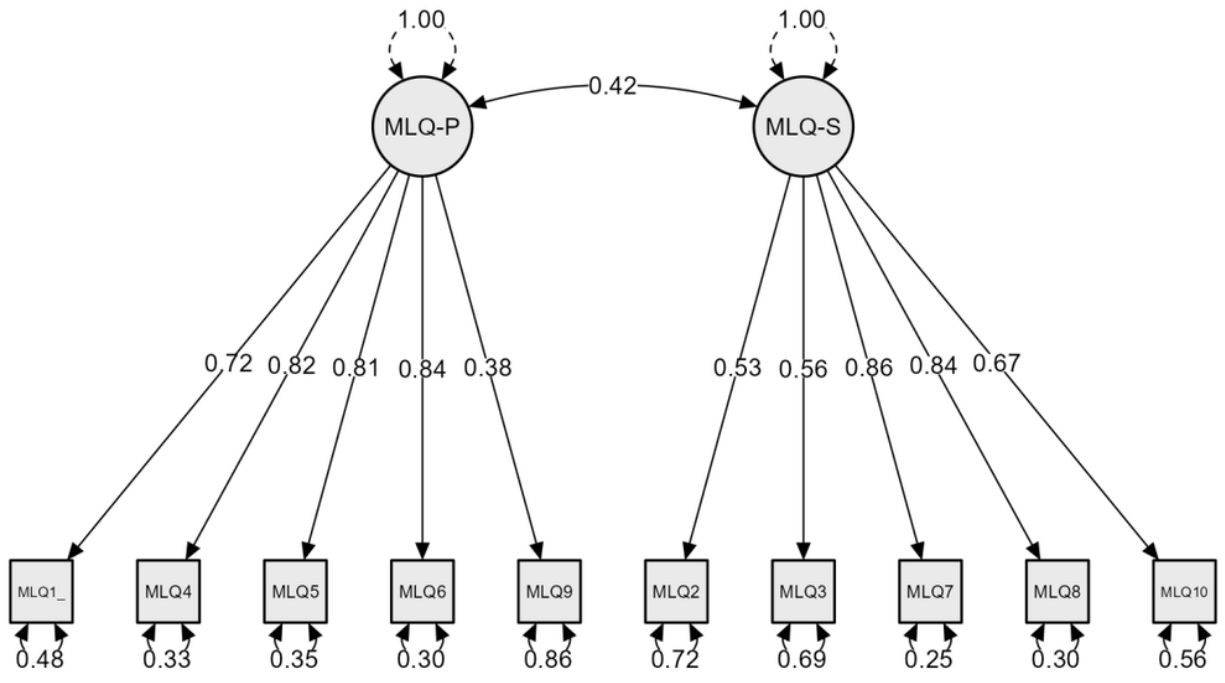


Figure 2

Model for the MLQ obtained in the present study

Note. MLQ-P = Presence of Meaning; MLQ-S = Search for Meaning