Revista Românească pentru Educație Multidimensională
ISSN: 2066-7329 | e-ISSN: 2067-9270
Covered in: Web of Science (WOS); EBSCO; ERIH+; Google Scholar; Index Copernicus; Ideas RePeC; Econpapers; Socionet; CEEOL; Ulrich ProQuest; Cabell, Journalseek; Scipio; Philpapers; SHERPA/RoMEO repositories; KVK; WorldCat; CrossRef; CrossCheck

2020, Volume 12, Issue 2, pages: 132-147 | https://doi.org/10.18662/rrem/12.2/270

Meaning in Life Questionnaire: Factor Structure and Gender Invariance in a Romanian Undergraduates Sample

Beatrice Adriana BALGIU[1]

[1] Associate professor, University Politehnica of Bucharest, Bucharest, Romania, beatrice.balgiu@upb.ro

Abstract: The purpose of the present study is to analyze the psychometric properties of the Meaning in Life Questionnaire (MLQ) (one of the most widely used instruments for the assessment of the meaning in life) for a sample of 320 undergraduate students (149 males and 171 females; Mage = 19.29; S.D. = 1.42). The MLQ is built around two scales: the MLQ-P (5 items), which measures the Presence of Meaning, and the MLQ-S (5 items), which is focused on the Search for Meaning. The psychometric analysis carried out by means of the exploratory factor analysis (EFA) and the confirmatory factor analysis (CFA) confirmed that the MLQ has a two-factor structure according to the original version and adequate fit coefficients (χ^2 / df = 2.67; CFI = 0.957; RMSEA = 0.073; SRMR = 0.0711). The internal consistency is acceptable: Cronbach'sα = 0.79, for the MLQ-P and α = 0.85 for the MLQ-S. As for the measurement of the gender invariance, achieved through multigroup-CFA, the results have shown that there is strong invariance. The relations of the MLQ with the instruments for well-being (MHC-SF), flourishing (FS), and the positive and the negative affect (SPANE) suggestthe existence of adequate convergent validity.

Keywords: *Meaning in Life Questionnaire (MLQ); validation; confirmatory factor analysis; gender invariance; undergraduates.*

How to cite: Balgiu, B.A. (2020). Meaning in Life Questionnaire: Factor Structure and Gender Invariance in a Romanian Undergraduates Sample. *Revista Romaneasca pentru Educatie Multidimensionala, 12*(2), 132-147. https://doi.org/10.18662/rrem/12.2/270

1. Introduction

Researchers became interested in the concept of meaning in life when positive psychology gained momentum and it highlighted the impact of the meaning in life on mental health, especially on the development of well-being (Ryff& Singer, 1996; Seligman &Csikszentmihalyi, 2000). Specialists in the field of positive psychology argue empirically that the meaning in life correlates significantly with multidimensional life satisfaction (Ho, Cheung & Cheung, 2010), it becomes a significant predictor of happiness (Kashdan, 2013), and its role is to increase psychological well-being (Santos, Magramo, Oguan, Paat&Barnachea,2012).

Although there are differences in the conceptualization of the terms "meaning" and "purpose", research has shown that they are used equivalently(Diener et al., 2010; Rose, Zask& Burton, 2017). A brief review of the relation "meaning in life-purpose" sheds light on the relation between the two terms. In general, researchers proposed a hierarchical relation between purpose and meaning, stating either that the meaning encapsulates the purpose, or that the purpose influences individual decisions in the formulation of objectives and it stimulates behavioural consistency and psychological flexibility in order to provide a meaning. Thus, for example, for Wong (2019), the meaning in life may be unique for every individual and it contains the purpose perceived by the individual as the fulfilment of something valuable. In a similar way, Damon, Menon and Bronk (2003) consider the relation between meaning and purpose as being of the genus and species type: purpose is a subcategory of meaning, along with values and efficacy, and from a temporal point of view meaning precedes the establishment of the purpose.Purpose may be said to be almost impossible to formulate in a meaningless life. For McKnight and Kashdan (2009), the purpose is an aim which has the role to organize the objectives and thus to provide a sense of meaning.

According to other authors, the meaning encompasses purpose (the existence of goals and their direction), significance (the degree to which a person considers his/her own life to have value and importance) and coherence (the permanence of preoccupations) (Heintzleman& King, 2014).

In this study, we draw on the definition given by Steger et al. (2006) who defined meaning as "the sense made of, and significance felt regarding the nature of one's being and existence" (p. 81).In Steger's vision (2009), meaning entails two key components – understanding and purpose.

Understanding has to do with the meaning of life, while the purpose has to do with the accomplishment of a general life mission (Steger, 2009).

2. The description of the Meaning in Life Questionnaire

The MLQ assesses two dimensions of the meaning in life: the Presence of meaning subscale (MLQ-P) – which measures the perceived meaningfulness of the respondents' life- and the Search for meaning subscale (MLQ-S) – which measures the engagement and the motivation of the individuals in their effort to discover the meaning of life or to have a better understanding of the meaning of life (Steger et al., 2006; Steger, 2010).The questionnaire contains 10 items assessed on a 7-item scale from 1 – *absolutely true* to 7 – *absolutely false.*

The respondents may report on the presence of meaning in their life, and, at the same time, they may also report on the fact that they are looking for supplementary meaning. According to Steger (2010), the scores that are > 24 for both the MLQ-P and the MLQ-P this means that respondents feel that personal life has meaning and purpose and they will not look for another meaning. If the scores are below 24 on the MLQ-P scale and over 24 on the MLQ-S, individuals consider that life has meaning and purpose and will be looking for a new meaning. When scores are below 24 on both scales, individuals do not consider that they have valued meaning and do not feel that they need to look for another meaning and purpose (Steger, 2010).

Throughout time, the studies for the validation of the MLQ demonstrated a good internal consistency. Steger et al. (2006) reported on reliability coefficients between 0.81 and 0.86 for the MLQ-P, and between 0.84 and 0.92 for the MLQ-S. The test-retest reliability coefficient after a month was 0.70 for the Presence of meaning scale and 0.73 for the Search for meaning scale. Gongora and Solano (2011) demonstrated levels of αCronbach>0.80 for both scales in the case of a group of Argentinean teenagers (N=180). Similarly, Rose et al. (2017) revealed coefficients of 0.82 for the Presence subscale and 0.84 for the Search subscale in the case of 135 Australian high school students (Mage = 15.18 years).

Studies demonstrated that there are both negative correlations between Presence and Search factors (Boyraz, Lightsey & Can, 2013; Singh et al., 2016; Steger, Oishi& Kesebir, 2011) – accounted for by the fact that "perceived meaning is associated with less of a need to discover additional meaning"(Schulenberg, Strack& Buchanan, 2011, p. 1214),and significant positive correlations, especially in the collectivist societies from China and

Japan (Steger et al., 2008; Wang & Dai, 2008), accounted for by social differences and differences related to values (Steger et al., 2008).

As Bronk (2014) shows, the MLQ is valid to the extent it correlates positively with instruments that measure well-being such as life satisfaction, and positive affect inclusive.

Thus, the MLQ-P subscale correlates with satisfaction with life, mental health, sense of coherence and spiritual well-being, while the MLQ-S subscale was associated with depression (Temane, Khumalo&Wissing, 2014).Other studies have shown that the MLQ-P correlates significantly with measures for hope (r = 0.35), life satisfaction (r = 0.53),and resilience (r between 0.23 – 0.55), while the MLQ-S showed weak negative correlations with depression, anxiety, stress (Stalikas et al., 2018). Astudyperformed on 1300 Argentinean adults highlights that MLQ-P correlates positively with all well-being dimensions (emotional, psychological and social well-being) designed by Keyes (2005), and MLQ-S negatively correlates very weakly with the mentioned dimensions (Lupano Perugini et al., 2017).

The validation of the MLQ resulted in the improvement of the instruments used for the assessment of meaning in life, which can contribute to the theory and the research in the domain (Yuen Lee, Kam & Lau, 2017). The purpose of the present study is to validate the MLQ by using both exploratory and confirmatory factor analysisin the case of a sample of emerging adults, a population on which the respective instrument was used less.

3. Methodology

Participants and procedure: 320 undergraduates (149 males and 171 females) aged between 18 and 29 (Mage = 19.29; S.D. = 1.42), studying humanities (25%) and technique (75%) in public universities. The set of instruments was administered during classes, and it took students 10-15 minutes to fill in the questionnaire. The purpose was communicated to students and the latter's participation was voluntary, they were not rewarded subsequently.

Instruments applied in addition to the MLQ

1. The Mental Health Continuum-Short Form – MHC-SF (Keyes, 2005) has 14 items with the purpose to briefly assess three components of well-being: the emotional (EWB), the social (SWB), and the psychological one (PWB), assessed on a 6-item Likert scale based on the experience undergone by the respondents over the last month. The EWB subscale contains 3 items defined in terms of positive affect and satisfaction

with life. The SWB subscale contains the following five items which represent contribution, integration, actualization, acceptance, and coherence of the individual on a social level(Keyes, 1998).The PWB subscale contains dimensions from Ryff's model (1989): self-acceptance, environmental mastery, positive relations with others, personal growth, autonomy, and purpose in life. MHC-SF correlates with scales which measure affectivity (PANAS - Watson Clark &Tellegen, 1988), satisfaction with life (SWLS – Diener et al., 1985), and well-being (Well-Being Index, WBI – Cummins et al., 2001). Research shows that the MHC-SF has a good internal consistency: $\alpha = 0.84$ for the PWB subscale, $\alpha = 0.82$ for the EWB subscale, $\alpha = 0.78$ for the SWB subscale, and $\alpha = 0.89$ - the total MHC-SF score (Lupano Peruginiet al., 2017). For this study, the Cronbach's alpha coefficients were 0.72 – the EWB subscale, 0.67 – the SWB subscale, and 0.75 - the PWB subscale.

2. The Scale of Positive and Negative Experience – SPANE (Diener et al., 2010) is a twelve-item scale which measures feelings of well-being and ill-being and it is made of two subscales: Spane-P (6 items) for positive feelings and experiences, and Spane-N (6 items) for negative feelings and experiences. The items are assessed from 1- *very rarely or never*to 5 *-very often or always*, and every subscale has a score from 6 to 30. In the end, it calculates the score for the Spane-B subscale, which represents a balance between the positive and negative affect, by decreasing the score obtained at Spane-N subscale from the score obtained at Spane-P.The score of the resulting difference ranges from -24 (lowest possible) to 24 (highest possible score). Throughout time the scale obtained high consistency indexes: $\alpha = 0.87$ (Spane-P), $\alpha = 0.81$ (Spane-N), $\alpha = 0.89$ (Spane-B) (Dieneret al., 2010). In addition, other pieces of research show that the αcoefficientsvary between 0.89 (Spane-P) and 0.84 (Spane-N) for undergraduate students (Silva &Caetano, 2011). In the present research, the internal consistency is high, $\alpha = 0.86$ for Spane-P, and $\alpha = 0.82$ for Spane-N.

3. The Flourishing Scale – FS (Diener et al., 2010) consists in 8 items regarding the human psychological flourishing in domains such as purpose in life, interpersonal relationships, self-esteem, feeling competent and optimism, assessed on a scale from 1- *strong disagreement* to 7 - *strong agreement*. A typical item is *I am engaged and interested in my daily activities*. The scores vary between 8 and 56. The convergent validity shows that the FS correlates strongly with other instruments that measure well-being such as Satisfaction with Life scale (SWLS), the Basic Needs Satisfaction scale (BPNS) and Short Psychological well-being (SPWB). As Diener et al. (2010) show, FS offers an overview of the optimal functioning of the individual in

different fields.Research reports on high αCronbachcoefficients in the case of various cultural groups: 0.80 (Diener et al., 2010), 0.83 (Silva &Caetano, 2011), 0.95 (Sumi, 2014), 0.82 (Villieux et al., 2016). In the present study, the αCronbach coefficient is 0.75.

Data analysis was carried out by means of the EFA and the CFA for the factorial validation. For the gender factorial invariance, we tested the configuration invariance and the consecutive models by means of multigroup confirmatory factor analysis (MG-CFA). The following indicators were used: χ^2 value, df(degrees of freedom), IFI (incremental-fit-index), TLI (Tucker-Lewis index), CFI (comparative fit-index), RMSEA (root mean squared error of approximation), SRMR (standardized root mean square residual), AIC (Akaike's Information Criterion) as well as the difference of indicators (ΔCFI and $\Delta\chi^2$)in the case of measurement of gender invariance.Taking into consideration the points of reference in the specialized literature, we considered that, if RMSEA <0.06, CFI > 0.95, and SRMR ≤0.08, there is a good fit of the model, while RMSEA ≤ 0.08 and CFI >0.90 shows a satisfactory fit (Hu &Bentler, 1999). In addition, if $\Delta\chi^2$ is not statistically significant and ΔCFI < 0.01, the model can be considered invariant. In order to assess the internal consistency, we used αCronbachcoefficients. In order to establish the convergent validity, we used correlations between the MLQ scores and those of the instruments mentioned above, the MHC-SF, the SPANE, and the FS. The data were analysed by means of the SPSS22 and Amos 20 software.

4. Results

- *Construct validity*

Firstly, we carried out the EFA by means of the Bartlett and Kaiser-Meyer-Olkinsphericity tests. The values we obtained (KMO = 0.82; Bartlett's sphericity test = 1278.033, df = 45, p = 0.000) showed that the principal component analysis (PCA) could be implemented, which led to two factors that account for 32.12% and 39.62% of the variance of the total score (table 1). The factor loading is above 0.70, between 0.74 (item 10) and 0.86 (item 5), more precisely, except for item 9 which has the lowest factor loading of all the items (0.51). Mention must be made of the fact that item 9 is included in the analysis after its inversion.

Table 1 The result of the exploratory factor analysis

Items	Factors	
	1	2
MLQ-P1	0.10	**0.79**
MLQ-P4	0.07	**0.80**
MLQ-P5	0.10	**0.86**
MLQ-P6	0.00	**0.75**
MLQ-P9	-0.09	**0.51**
MLQ-S2	**0.78**	-0.03
MLQ-S3	**0.77**	0.18
MLQ-S7	**0.83**	0.08
MLQ-S8	**0.85**	0.11
MLQ-S10	**0.74**	-0.22
Explained Variance %	32.12	29.62

Before the confirmatory factor analysis, we calculated the Mardia coefficient which was 20.69 and significantly different from zero. Therefore, we applied the bootstrapping method (2000 sample) in order to obtain robust statistics (Finney &DiStefano, 2013).

The second stage of the analysis consisted in the CFA through which we obtained two models, one with non-correlated errors and another one in which the errors were correlated after we verified the modification indices, which led to better coefficients of the model (table 2). We correlated the errors of items 1 (I understand my life's meaning) and 6 (I have discovered a satisfying life purpose) in the MLQ-P, and the errors of items 2 (I am looking for something that makes my life feel meaningful) and 3 (I am always looking to find my life's purpose) in the MLQ-S. The indicators obtained in the case of the second model with the correlated errors, χ^2 = 85.481; df = 32; χ^2/df = 2.67; IFI = 0.958; TLI = 0.940; CFI = 0.957; RMSEA = 0.073 (90% Confidence Interval - CI 90% - 0.055 – 0.092); SRMR = 0.0711; AIC=151.481; $p<0.001$ are considered to be superior to the first model, the one without the correlation of errors: χ^2 = 102.895; df = 34; χ^2/df = 3.02; IFI = 0.945; TLI = 0.927; CFI = 0.945; RMSEA =0.081 (90% Confidence Interval - CI 90% - 0.063 – 0.099); SRMR =0.0727; AIC = 164.895; $p<0.001$, that is why they were retained in the subsequent analysis. The standardized factor loadings obtained is significant at $p<0.001$ and for the MLQ-P they are between 0.63 (item 6) and 0.88 (item 5), while

for the MLQ-S they are between 0.64 (item 10) and 0.85 (item 8). Item 9 remains the one with the lowest value (0.38) within the whole questionnaire. We obtained a weak, but significant intercorrelation between the two factors ($r = 0.17$; $p = 0.014$).

Table 2 Confirmatory factor analysis

Models	χ^2	df	χ^2/df	CFI	RMSEA	SRMR	AIC
Two factors uncorrelated errors	102.895	34	3.02	0.945	0.081	0.0727	164.895
Two-factors correlated errors	85.481	32	2.67	0.957	0.073	0.0711	151.481

- *Factorial invariance*

The baseline model (M1) used as a point of reference for the other models has the following indicators: 121.671;df = 64;χ^2/df = 1.90; CFI = 0.953; RMSEA = 0.054 (90%CI – .039-.068)(table 3). The ΔCFI values vary between 0.001 and 0.003 for the subsequent models (M2 and M3) and it is 0.04 for the residual model (M4). Consequently, in the case of the residual model ΔCFI > 0.01. In addition, $\Delta\chi^2$ is not statistically significant in the case of models M2 and M3, but it is significant in the case of the residual model (M4). Therefore, the residual model, the most restrictive model that entails the equivalence of the item residuals, is rejected.

Table 3. Factorial invariance of MLQ across gender

Models	Overall fit indices					Comparative fit indices				
	χ^2	df	χ^2/df	CFI	RMSEA	$\Delta\chi^2$	Δdf	p	ΔCFI	ΔRMSEA
M1	121.671	64	1.90	0.953	0.054	-	-	-	-	-
M2	130.487	72	1.81	0.952	0.051	8.81	8	0.358	0.001	0.003
M3	136.852	75	1.82	0.950	0.051	15.18	11	0.174	0.003	0.003
M4	193.720	87	2.22	0.913	0.063	72.04	23	0.000	0.040	-0.009

- *Reliabilities and descriptive statistics*

Table 4 summarizes the descriptive statistics: averages, standard deviations, skewness and kurtosis for the MLQ. As for the αCronbach

internal consistency, it shows acceptable reliability of the instrument: α = 0.79 for the MLQ-P and α = 0.85 for the MLQ-S.

For the subsamples of males and females, the obtained coefficients are high: the MLQ-P scale (α = 0.77 - females; α = 0.81 -males) and the MLQ-S scale (α = 0.86 - females, α = 0.83 - males) and the total score MLQ (α = 0.86 - females, α = 0.83 - males). The average scores for the two scales are M = 23.90; (S.D. = 5.83) for the MLQ-P and M = 25.62(S.D. = 6.34) for the MLQ-S. Out of the 7 items, those that stand out are item 2 (I am looking for something that makes my life feel meaningful) (M = 5.48; S.D. = 1.50), 7(I am always searching for something that make my life feel significant)(M = 5.20; S.D. = 1.53) and 8 (I am seeking a purpose or mission for my life) (M = 5.17; S.D. = 1.58).

With regard to gender invariance, we found that female subjects obtain significantly higher scores (M = 27.14; S.D. = 5.65) for the MLQ-S than the male subjects do (M = 23.80; S.D. = 6.66) (t = -4.79; p = 0.000).

Table 4 Descriptive statistics

Items	M	S.D.	Skewness	Kurtosis	Cronbach's α if item deleted
1. I understand my life's meaning.	4.98	1.36	-0.94	0.89	0.73
2. I am looking for something that makes my life feel meaningful.	5.48	1.50	-1.20	1.19	0.74
3. I am always looking to find my life's purpose.	4.98	1.57	-0.83	0.27	0.71
4. My life has a clear sense of purpose.	4.61	1.56	-0.49	-0.23	0.73
5.I have a good sense of what makes my life meaningful.	4.45	1.56	-0.40	-0.35	0.72
6. I have discovered a satisfying life purpose.	4.73	1.50	-0.64	0.16	0.75
7.I am always searching for something that make my life feel significant	5.20	1.,53	-0.82	0.14	0.72
8.I am seeking a purpose or mission for my life.	5.17	1.58	-1.00	0.67	0.71
9. My life has no clear purpose.	5.12	1.84	-0.61	-0.75	0.78
10. I am searching for meaning in my life.	4.77	1.76	-0.66	-0.41	0.76

- *Convergent and divergent validity*

Taking into consideration prior literature (Garcia-Alandete, 2015; Lupano Perugini et al., 2017; Singh et al., 2016), we considered that the Presence of meaning scale will have positive correlations with the scales that measure dimensions of well-being, and significant negative correlations with the negative affect. In the case of Search for meaning scale, we expect it to be a different pattern. As the study of Lupano Perugini et al. (2017) emphasize, we expect negative correlations between MLQ-S and the well-being dimensions and positive correlations with the scale representing negative affect. As expected, we obtained significant Pearson correlations between the MLQ-P and the other validated instruments. The Presence of meaning has significant moderate positive correlations with PWB ($r = 0.57$; $p< 0.01$), EWB ($r = 0.46$; $p<0.01$), positive affect ($r = 0.41$; $p< 0.01$),flourishing (FS) ($r = 0.58$; $p< 0.01$), reversecorrelation with the negative affect ($r = -0.28$; $p< 0.01$)and weak correlations with SWB ($r = 0.35$; $p<0.01$). Instead, the Search for meaning scale has significant positive weak correlation with negative affect ($r = 0.17$; $p<0.01$) and a negative correlation with balance affect($r = -0.12$; $p<0.05$).

Table 5. Intercorrelations between MLQ and other validated instruments

	Variables	MLQ-P	MLQ-S
MHC-SF	emotional WB	0.47**	0.05
	psychologicalWB	0.57**	0.03
	social WB	0.35**	0.04
SPANE	positive affect	0.41**	0.02
	negative affect	-0.28**	0.17**
	balance affect	0.40**	-0.12*
FS	flourishing	0.58**	0.07

**p < .01;*p < .05; WB – well-being

5. Discussion

The MLQ is one of the most widely used instruments for the assessment of the meaning in life. That is why our main purpose was to validate the MLQ on a Romanian student population, which needs more assessment with regard to the meaning in life. The study provided empirical support for the reliability and the validity of the MLQ in the case of the group of Romanian students. The factor structure of the instrument examined by means of the EFA and the CFA led to a two-factor solution

consistent with prior studies carried out in various cultures (Boyraz, Lightsey& Can 2013, Gongora& Solano, 2011; Rose et al., 2017; Singh et al., 2016): five Presence of meaning items and five Search for meaning items corresponding to the original structure of the scale (Steger, 2010; Steger et al., 2006). The factor loading is high for both types of analysis, except for item 9 for which the factor loading has lower values in comparison with the other items (0.51 in the EFA and 0.38 in the CFA). The result is similar to those of other studies carried out on students, studies in which item 9 has values of 0.57 in comparison with other items whose factor loading is between 0,69 and 0.82 (Temane, Khumalo &Wissing,2014). In fact, Gongora and Solano (2011) reached the conclusion that the absence of item 9 makes the MLQ a better instrument.

We obtained a weak, but significant correlation between the two scales in the CFA ($r = 0.17$; $p = 0.014$), while there is no relation in the EFA ($r = 0.07$; $p>0.05$). Several studies showed that the two subscales are inconsistently related to each other (King, Heintzelman& Ward, 2016). For example, research reported on the absence of correlations in the case of a sample of Chinese students (Chan, 2017; Liu &Gan, 2010), on a general Hindi population (Singh, 2010), negative correlations (Singh et al., 2016; Temane et al., 2014; Boyraz et al., 2013; Park, Park & Peterson, 2001), and moderate positive correlations (Brassai et al., 2012; Schulenberg et al., 2011; Steger &Kashdan, 2007; Steger et al., 2006). This aspect must be insisted upon in prior research by analyzing the analysis of the properties of the scale in various cultural models.

The measurement of the gender invariance showed that the invariance is strong, which demonstrates that both groups of male and female subjects have the same understanding of the concept of meaning.

In most studies, the αCronbach coefficients are > 0.80 for both scales. In the present study, in the case of the MLQ-P scale, the Cronbachα = 0.79, which is lower than in other studies. For example, for the Turkish version of the MLQ, $\alpha = 0.88$ (Boyraz et al., 2013), in a South African undergraduate students sample the MLQ-P = 0.85 (Temane et al., 2014), in the case of a sample of Chinese students, the MLQ-P obtains $\alpha = 0.81$ (Liu &Gan, 2010), while in the case of an adult and adolescent Argentine population (Gongora& Solano, 2011) $\alpha>0.80$ for both scales.

We found that the average values for the two scales are under the scores reported on by studies that applied the MLQ to other geographical areas. For example, the average of the MLQ-S scale in the present study ($M = 23.90$) is between the average MLQ-P in the case of the Indian population ($M = 28.21$) (Singh et al., 2016) and the one obtained in the case of the

Japanese students (M = 19.70). In this regard, the average values for the two scales in the present study are relatively similar to the ones obtained on a sample of 426 Romanian teenagers from Transylvania in which M = 22.90/6.5 for the MLQ-P and M = 25.00/5.9 for the MLQ-S (Brassai, Piko& Steger, 2012). There is some gender difference in the case of the MLQ-S in the sense that the female subjects of the group havehigher MLQ-S scores compared to the male persons of the group ($t = - 4.79$; $p = 0.000$).

The MLQ demonstrates good convergent validity in the present sample. As expected, the MLQ-P scale correlates positively with the emotional, psychological, social well-being, flourishing, the positive affect, the balance affect, and, negatively, with the negative affect.The MLQ-S scale has only a weak positive correlation with the negative affect scale and a weak negative correlation with balance affect scale. This correlation of the MLQ-S with the negative affect shows that the process of searching for meaning entails some psychological effort, as well as negative states of fear and anger. The result is identical to the result of a study carried out on a population in the Northern India, a study which shows that the MLQ-P has positive correlations with Spane-P, Spane-B, and FS, negative correlations with Spane-N, while the MLQ-S has negative correlations with SPANE-B and positive correlations with Spane-N (Singh et al., 2016).In contrast to the study of Lupano Perugini et al. (2017), which finds weak negative relationships between MLQ-S and emotional, social and psychological well-being, in this study no relations were obtained between MLQ-S and the above-mentioned dimensions of the well-being.

6. Conclusions

The model resulted from the EFA and the CFA led to a reliable instrument that observes the basic structure of MLQ. This research has its limitations. In addition to the number of the subjects that make up the sample, a number that needs to be larger in prior studies, most of the subjects attend the same faculty and they have the same domain of study, which limits the generalization of the findings. On the other hand, for subsequent studies on the validation of the MLQ, we suggest the use of larger questionnaires that measure well-being such as psychological well-being scale that comprise a larger number of well-being dimensions such as: self-acceptance, positive relationship, autonomy, environmental mastery, purpose of life and personal growth.Despite these limitations, the contribution of the present study consists in the fact that it provides evidence for reliability, the construct validity, gender invariance and

convergent/divergent validity and it suggests that the MLQ is a measure which may be used in the examination of meaning in life in the case of emerging adults. The results have implications in the assessment of the meaning in life in the case of the groups of students and of the young population, considering that meaning in life is not only important for their well-being, but also for other aspects of students life, such as the motivation and the identity.

References

Boyraz, G., Lightsey, O.R.jr, &Can, A. (2013). The Turkish version of the Meaning in Life Questionnaire: Assessing the measurement invariance across Turkish and American Adult sample. *Journal of Personality Assessment*, *95*, 423-431.

Brassai, L., Piko, B., & Steger, M. (2012). Existential attitudes and eastern European adolescents' problem and health behaviors: Highlighting the role of the search for meaning in life. *The Psychological Record, 62*, 719-734.

Bronk, K. C. (2014). *Purpose in life. A critical component of optimal youth development*. London: Springer.

Chan, W.C.H. (2017). Assessing Meaning in Life in social work practice: validation of the Meaning in Life Questionnaire among clinical samples. *The British Journal of Social Work*, *47*, 9-27.

Cummins, R., Eckersley, J., Pallant, J., &Davern, M. (2001). *Australian Unity Wellbeing Index, Survey 2: Report 1.* Melbourne: Australian Centre on Quality of Life, Deakin University.

Damon, W., Menon, J., &Bronk, K. C. (2003).The development of purpose during adolescence.*Applied Developmental Science*, *7*, 119-128.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment, 49*, 71-75.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D-w., Oishi, S., &Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*, 143-156.

Finney, S.J., &DiStefano, C. (2013).*Non-normal and categorical data in structural equation modeling.* In G.R. Hancock & R.O. Mueller (Eds.), *Structural equation modeling. A second course* (2nd ed.) (pp. 439–492). Information Age Publishing.

Garcia-Alandete, J. (2015). Does Meaning in Life predict psychological well-being? An analysis using the Spanish Versions of the Purpose-In-Life Test and the Ryff's Scales. *The European Journal of Counselling Psychology*, *3*, 89-98.

Gongora, V., & Solano, A. C. (2011).*ValidacióndelCuestionario de Significado de la Vida MLQ enpoblacióndulta y adolescenteargentina* [Validation of the Meaning in Life

Questionnaire (MLQ) in Argentinian adult and adolescent population]. *RevistaInteramericana de Psicologia, 45*, 395-404.

Ho, M.Y., Cheung, F.M., &Cheung, S.F. (2010). The role of Meaning in Life and optimism in promoting well-being.*Personality and Individual differences*, *48*, 658-663.

Hu, L.T., &Bentler, P.M. (1999) Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*, 1-55.

Heintzelman, S. J., & King, L. A. (2014). Life is pretty meaningful. *American Psychologist*, *69*, 561-574.

Kashdan, T.B. (2013) *Curios?: Descoperă ingredientul care-ţilipseştepentru o viaţăîmplinită*, [Curious?: Discover the missing ingredient to a fulfilling life].Bucureşti: EdituraTrei.

Keyes, C.L.M. (1998). Social well-being. *Social Psychology Quarterly, 61,* 121-140.

Keyes, C.L.M. (2005). Mental illness and/or mental health?Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology*, *73*, 539- 548.

King, L.A., Heintzelman, S.J., &Ward, S.J. (2016). Beyond the Search for Meaning: A contemporary science of the experience of Meaning in Life, C*urrent Directions in Psychological Science, 25*, 211-216.

Liu, S., &Gan, Y. (2010).Reliability and validity of the Chinese version of the Meaning in Life Questionnaire.*Chinese Mental Health Journal*, *6*, 478-482.

Lupano Perugini, M. L., De la Iglesia, G., Castro Solano, A., & Keyes, C.L.M. (2017). The mental health continuum short form (MHC-SF) in the Argentinean Context: Confirmatory factor analysis and measurement invariance. *Europe's Journal of Psychology*, *13*(1), 93-108.

McKnight, P.E., &Kashdan, T. B. (2009). Purpose in Life as a System That Creates and Sustains Health and Well-Being: An Integrative, Testable Theory.*Review of General Psychology*, *13*, 242-251.

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*, 68-77.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069-1081.

Ryff, C.D., & Singer, B. (1996). Psychological well-being: meaning, measurement, and implications for psychotherapy research. *Psychotherapy and Psychosomatics*, *65*, 14-23.

Santos, M. C. J., Magramo, C., Jr., Oguan, F., Jr., Paat, J. N. J., &Barnachea, E. A. (2012). Meaning in life and subjective well-being: Is a satisfying life meaningful*? Researchers World: Journal of Arts, Science & Commerce, 3,*132-140.

Seligman, M. E. P., &Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*, 5 - 14.

Silva, A. J., & Caetano, A. (2011).Validation of the Flourishing Scale and Scale of Positive and Negative Experience in Portugal.*Social Indicator Research*, *110*, 469-478.

Singh, K. (2010). Revalidation of a new instrument for 'meaning in life' in Indian context and comparison of cross-cultural findings.*Amity Journal of Applied Psychology*, *1*, 96-103.

Singh, K., Junnarkar, M., Jaswal, S., &Kaur, J. (2016). Validation of Meaning in Life Questionnaire in Hindi (MLQ-H).*Mental Health, Religion & Culture*, *19*, 448-458.

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*, 1210-1219.

Sumi, K. (2014). Reliability and validity of Japanese versions of the Flourishing Scale and the Scale of Positive and Negative Experience.*Social Indicators Research*, *118*(2), 601-615.

Stalikas, A., Kyriazos, T.A., Yotsidi, V., &Prassa, K. (2018). Using bifactor EFA, bifactor CFA and exploratory structural equation modeling to validate factor structure of the Meaning in Life Questionnaire, Greek Version. *Psychology, 9*, 348-371.

Steger, M. F. (2009). Meaning in life. In S. J. Lopez,& C. R. Snyder (Eds.),*Oxford handbook of positive psychology* (pp. 679–687). New York: Oxford University Press.

Steger, M. F. (2010). *MLQ description scoring and feedback packet*.http://www.michaelfsteger.com/wpcontent/uploads/2013/12/MLQ-description-scoring-and-feedback-packet.pdf

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*, 80 - 93.

Steger, M.F., &Kashdan, T.B. (2007).Stability and specificity of Meaning in Life and life satisfaction over one year.*Journal of Happiness Studies, 8*, 161-179.

Steger, M. F., Kawabata, Y., Shimai, S., &Otake, K. (2008). The Meaningful Life in Japan and the United States: Levels and correlates of Meaning in Life. *Journal of Research in Personality*, *42*, 660-678.

Steger, M. F., Kashdan, T. B., Sullivan, B. A., & Lorentz, D. (2008).Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning.*Journal of Personality*, *76*, 199-228.

Steger, M. F., Oishi, S., &Kesebir, S. (2011). Is a life without meaning satisfying? The moderating role of the search for meaning in satisfaction with life judgments.*Journal of Positive Psychology*, *6*, 173-180.

Temane, L., Khumalo, I.P., &Wissing, M.P. (2014).Validation of the Meaning in Life Questionnaire in a South African context.*Journal of Psychology in Africa*, *24*, 81-95.

Villieux, A., Sovet, L., Jung, S.C., &Guilbert, L. (2016) Psychological flourishing: Validation of the French version of the Flourishing Scale and exploration of its relationships with personality traits.*Personality and Individual Differences*, *88*, 1-5.

Wang, M. C., & Dai, X. Y. (2008). Chinese Meaning in Life Questionnaire revised in College Students and its reliability and validity Test. *Chinese Journal of Clinical Psychology*, *16*, 459-461.

Watson, D., Clark, I. A., &Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063-1070.

Wong, P. (2019). *Meaning and evil and a two-factor model of Search for Meaning*.http://www.drpaulwong.com/meaning-and-evil-and-a-two-factor-model-of-search-for-meaning/

Yuen, M., Lee, Q. A. Y., Kam, J., & Lau, P.S.Y. (2017). Purpose in life: A brief review of the literature and its implications for school guidance programmes. *Journal of Psychologists and Counsellors in Schools*, *27*, 55-69.