

ACTA COLOMBIANA DE PSICOLOGÍA 16 (1): 17-24, 2013

PREDICTIVE ROLE OF MEANING IN LIFE ON PSYCHOLOGICAL WELL-BEING AND GENDER-SPECIFIC DIFFERENCES¹

JOAQUÍN GARCÍA-ALANDETE, BEATRIZ SOUCASE LOZANO, PILAR SELLÉS NOHALES, EVA ROSA MARTÍNEZ*
UNIVERSIDAD CATÓLICA DE VALENCIA SAN VICENTE MÁRTIR – SPAIN

Recibido, septiembre 18/2012

Concepto evaluación, abril 9/2013

Aceptado, mayo 16/2013

Abstract

This study examines the predictive role of meaning in life and gender-specific differences on psychological well-being of 226 Spanish undergraduates (87 men, 38.5%; 139 women, 61.5%) ranging in age from 17 to 25 years, $M = 21.08$, $SD = 2.18$. Measures included both the Spanish adaptations of the Crumbaugh and Maholic's *Purpose-In-Life Test* and the Ryff's *Scales of Psychological Well-Being*. The hypothesis stated that meaning in life would predict psychological well-being and that women would reach a higher score in several dimensions of psychological well-being. Statistical analysis included simple linear regressions, and a *t*-test. Results showed that: (1) meaning in life was a significant predictor variable of psychological well-being, especially of global psychological well-being, self-acceptance, purpose in life, and environmental mastery; and (2) women reached a higher score, statistically significant, in global psychological well-being, environmental mastery, personal growth and purpose in life. Findings were discussed in the light of previous researches.

Key words: Meaning in life, gender, psychological well-being, simple linear regression, *ex post facto* study.

ROL PREDICTIVO DEL SENTIDO DE LA VIDA SOBRE EL BIENESTAR PSICOLÓGICO Y DIFERENCIAS DE GÉNERO

Resumen

Se examinaron el papel predictivo del Sentido de la Vida y las diferencias en función del género en el Bienestar Psicológico en un grupo de 226 estudiantes universitarios españoles (87 hombres, 38.5%; 139 mujeres, 61.5%), con edades entre los 17 y los 25 años, $M = 21.08$, $DT = 2.18$. Se usaron adaptaciones españolas del *Purpose-In-Life Test* de Crumbaugh y Maholic y de las *Escalas de Bienestar Psicológico* de Ryff. Las hipótesis a contrastar fueron que de manera significativa el Sentido de la Vida predeciría el Bienestar Psicológico y que las mujeres alcanzarían puntuaciones más altas en algunas dimensiones del mismo. Los análisis estadísticos incluyeron regresiones lineales simples y la prueba *t* para muestras independientes. Los resultados mostraron que: (1) El Sentido de la Vida predijo significativamente el Bienestar Psicológico, especialmente el Bienestar Psicológico global, la Autoaceptación, el Propósito en la Vida y el Dominio del Entorno, y (2) las mujeres alcanzaron puntuaciones significativamente superiores en Bienestar Psicológico global, Dominio del Entorno, Crecimiento Personal y Propósito en la Vida. Estos resultados fueron discutidos a la luz de la investigación precedente.

Palabras clave: Sentido de la vida, género, bienestar psicológico, regresión lineal simple, estudio *ex post facto*.

PAPEL PREDITIVO DO SENTIDO DA VIDA SOBRE O BEM-ESTAR PSICOLÓGICO E DIFERENÇAS DE GÊNERO

Resumo

Examinou-se o papel preditivo do Sentido da Vida e as diferenças em função do gênero no Bem-estar Psicológico em um grupo de 226 estudantes universitários espanhóis (87 homens, 38.5%; 139 mulheres, 61.5%), com idade entre 17 e 25 anos, $M = 21.08$, $DT = 2.18$. Foram usadas adaptações espanholas do *Purpose-In-Life Test* de Crumbaugh e Maholic e das *Escalas de Bem-estar Psicológico* de Ryff. As hipóteses a contrastar foram que de maneira significativa o Sentido da Vida prediria o Bem-estar Psicológico e que as mulheres alcançariam pontuações mais altas em algumas dimensões do mesmo. As análises

* Universidad Católica de Valencia San Vicente Mártir. Facultad de Psicología, Magisterio y Ciencias de la Educación. C/ Guillem de Castro, 175. 46008-Valencia (España). ximo.garcia@ucv.es, beatriz.soucasse@ucv.es, pilar.selles@ucv.es, eva.rosa@ucv.es.

¹ This investigation was financed by the Research, Development, and Innovation Vicerrectoría de la Universidad Católica de Valencia, Spain.

estatísticas incluíram lineais simples e o teste *t* para mostras independentes. Os resultados mostraram que: (1) O Sentido da Vida predisse significativamente o Bem-estar Psicológico, especialmente o Bem-estar Psicológico global, a Autoaceitação, o Propósito na Vida e o Domínio do Entorno, e (2) as mulheres alcançaram pontuações significativamente superiores em Bem-estar Psicológico global, Domínio do Entorno, Crescimento Pessoal e Propósito na Vida. Estes resultados foram discutidos à luz da pesquisa precedente.

Palavras chave: Sentido da vida, gênero, bem-estar psicológico, regressão linear simples, estudo ex pós fato.

INTRODUCTION

It is known that there are two great traditions in the psychological conceptualization of well-being: hedonist and eudaimonic (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011; Peterson, Park, & Seligman, 2005; Ryan & Deci, 2001). From the hedonist tradition it is stated that the greatest good that brings most happiness is pleasure, and it is related to an absence of negative emotions, experience of positive emotions and satisfaction in life (both affective and cognitive components of «Subjective Well-Being») (Kim-Prieto, Diener, Tamir, Scollon, & Diener, 2005). From the eudaimonic tradition, it is argued that the greatest good is composed of the experience of self-determination and personal growth, the purpose and achievement of goals, the meaning in life, the actualization of personal capabilities and potentials, the commitment with the existential challenges and the self-realization. All of these are components of the so-called «Psychological Well-Being» (hereinafter referred to as PWB) and characteristics of a positive psychological functioning (Keyes, 2006; Ring, Höfer, McGee, Hickey, & O'Boyle, 2007; Ryan & Huta, 2009).

Regarding this, Carol Ryff suggested a model of PWB that includes six dimensions: Self-acceptance (positive self-evaluation and positive evaluation of life), Positive Relations (high-quality and satisfactory interpersonal relations), Autonomy (sense of self-determination), Environmental Mastery (ability to manage the one's life and the surrounding world), Purpose in Life (belief that one's life is useful and that life is meaningful), and Personal Growth (a sense of growth and development as person) (see more in Christopher, 1999; Ryff, 1989a, 1989b, 1995; Ryff & Keyes, 1995). Ryff (1989a, 1989b) developed the *Scales of Psychological Well-Being* (SPWB) to assess these dimensions of the PWB. A high score for each of them indicates that the respondent has a mastery of that area in his/her life, and a low score shows that the respondent struggles to feel comfortable with that particular concept. The most eudaimonic dimensions of this model are both Personal Growth and Purpose in Life.

Gender-specific differences in psychological well-being

The study of differences associated with gender is an important and recurrent issue in several areas of psychological research, such as logical and mathematical reasoning, cognitive styles, general intelligence, spatial perception, personality, moral reasoning, empathy and prosocial behaviour, among others, being an area of difficult and controversial research, given the intervention of important neurological and socio-cultural factors, such as stereotypes and social standards and roles (e.g., Chrisler & McCreary, 2010; Eagly, 2009; Fine, 2010; Jordan-Young, 2010).

Regarding the PWB, as Roothman, Kirsten, and Wissing (2003, p. 212) noted, “gender differences are important in psychological well-being because of the many efforts being made in contemporary society to empower all individuals to achieve self-actualization and utilize their full potential”. Several studies show gender-specific differences in some of the PWB dimensions although the theoretical starting point of the Ryff's model offers few ideas and results are contradictory regarding this issue (Ryff, 1995; Ryff & Singer, 1998). So, women (of different age) have scored significantly higher in Positive Relations (Ryff & Keyes, 1995) and in both Positive Relations and Personal Growth (Ryff, 1989a, 1991), in Purpose in Life (García-Alandete, Rosa, Sellés, & Soucase, 2012), in both Purpose in Life and Autonomy (Ryff, Keyes, & Hughes, 2003), and in both Purpose in Life and Positive Relations (Lindfors, Berntsson, & Lundberg, 2006). On the contrary, men scored higher, especially in Environmental Mastery (Lindfors *et al.*, 2006), and in Self-acceptance (Visani *et al.*, 2011). Due to the inconclusive results of the previous research, it is interesting to analyze the gender-specific differences on well-being, to provide new empirical evidence and explain these differences, or at least offer some hypotheses for future studies on the matter.

Meaning in life and psychological well-being

Meaning in life is the main motivational principle of the human being, as the struggle for a sense of significance and purpose in life, according to Viktor E. Frankl's logotherapeutic postulates (Frankl, 2012). Meaning in Life

can be defined as a personal experience that includes the cognizance of order, coherence and purpose in one's existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of self-realization, order, and coherence out of one's existence, which includes affective, motivational, cognitive, relational, and personal components related to the fulfilment of purpose, efficacy, value and justification, and self-worth (Steger, in press).

According to Ryff and Keyes (1995), the conviction and sense that life is meaningful is a critical component of both mental health and personal growth (positively related to the perception and experience of freedom, responsibility, self-determination, and the positive conception of life, future, and oneself), related to the purpose and fulfilment of existential goals, and to the inclusive acceptance of adversity, life satisfaction, and self-realization. All of these aspects are included in the dimensions of Ryff's PWB model.

The conceptions of both PWB and Meaning in Life assumed in this paper derive from the Ryff's and Frankl's models, respectively. As noted above, to measure PWB, Ryff (1989a, 1989b) constructed the SPWB. On the other hand, among other scales used to measure the meaning of life (Martínez, Trujillo, & Díaz, 2011), the most used from logotherapeutic postulates is the *Purpose-In-Life Test* (PIL) (specifically the Part A), developed by Crumbaugh and Maholic (1969), who defined the meaning in life as the ontological significance of life from the point of view of the experiencing individual. Both Spanish adaptations of the SPWB and the PIL, described below, are the scales used in this study.

There are a considerable number of studies that, from decades ago, analyze the relationship between PWB and Meaning in Life using different scales (e.g., Ho, Cheung, & Cheung, 2010; Mulders, 2011; Rathi & Rastogi, 2007; Zika & Chamberlain, 1992), but it was only García-Alandete *et al.* (2012) who used jointly the SPWB and the PIL (a 20-items form), finding positive correlations between Meaning in Life and PWB global score, Purpose in Life, Environmental Mastery, and, to a lesser extent, with Personal Growth and Self-acceptance. All of these dimensions refer to some aspects strongly related to human motivation to the meaning in life, the achievement of goals, personal responsibility, and self-actualization (Frankl, 2012). Likewise, García-Alandete *et al.* (2012) indicate that the relationship between Meaning in Life and Purpose in Life is especially coherent, given that this dimension refers to the conviction that one's life is useful and meaningful. Furthermore, regression analysis showed that Meaning in Life predicted PWB (global and dimensions), which expressed in percentages ranged between 5.6% (Autonomy) and 59.9% (Purpose in Life).

Meaning in life includes life satisfaction, perception and experience of purpose, and projection of future goals, all of which implies self-acceptance, domain of the environment, personal growth and vital purposes. Regarding this, meaning in life can contribute significantly to psychological well-being. In relation to this, the main objective of the present paper is to analyze the relationship between Meaning in Life and PWB, using the Spanish adaptations of both SPWB and PIL tests. In order to evaluate this relationship, and according to previous research, we hypothesize (1) that Meaning in Life is a significant predictor variable of PWB, especially of global PWB, Purpose in Life Self-acceptance, Environmental Mastery, and Personal Growth, and (2) that women score higher than men in PWB, especially in Purpose in Life, Personal Growth and Positive Relations.

METHOD

Participants

This study included 226 undergraduates (87 men, 38.5%; 139 women, 61.5%) from Valencia, Spain, whose ages ranged from 17 to 25 years, $M = 21.08$, $SD = 2.18$, recruited by means of non-randomized, incidental sampling. Anonymously and voluntarily, participants completed in their university class-room a protocol that included the scales described below, under the authors' supervision. The average time to fill out the scales was 20 minutes.

Measures

Purpose-In-Life Test-10 Items Form (PIL-10; García-Alandete, Rosa, & Sellés, in press). This scale is a Spanish adaptation of Crumbaugh & Maholic's (1969) Part A of the PIL, composed by 10 items which are responded in a Likert scale (from 1 to 7, with specific anchorage for each one of them), that measure satisfaction and meaning in life, and personal purposes and goals, taken from logotherapeutic postulates. Total score may range between 10 and 70. The PIL-10 has shown a good fit by means of Confirmatory Factor Analysis (García-Alandete *et al.*, in press; Rosa, García-Alandete, Sellés, Bernabé, & Soucase, 2012).

Scales of Psychological Well-Being (SPWB; Ryff, 1989a, 1989b). The short version of a Spanish adaptation (Díaz *et al.*, 2006) was used in the study. It is composed of 29 items which are responded in a Lickert scale (1 = Completely in disagreement, 6 = Completely in agreement). The total score is the sum of the numerical values selected by the individuals in each item, ranging between 29 and 174. This SPWB Spanish adaptation includes the six dimensions of Ryff's model.

Procedure and analysis

Participants filled out, under supervision, a protocol that included the SPWB and the PIL tests, in the classroom in which they regularly carried out their academic activities. Data were analyzed with the SPSS 15.0 software for Windows. Specifically, the internal consistency (Cronbach's alpha) of the scales was estimated, and the descriptive statistics was analyzed, including the simple linear regression between Meaning in Life and the measures of PWB, and the *t*-test between the average scores of men and women in PWB.

RESULTS

Descriptive statistics of the scales

Table 1 displays the descriptive statistics and the internal consistency (Cronbach's alpha) of both the PIL-10 test and the SPWB (global and scales), and the correlations between these variables (Pearson's *r*). There are divergences about the reference value for the interpretation of the internal consistency: Nunnally (1978) pointed out that a Cronbach's alpha between .50 and .60 is acceptable; Gronlund (1985) considered that coefficients between .80 and .87 are good; Kerlinger and Lee (2002) established the value of .70 as the boundary between acceptable and not acceptable. According to this, the internal consistency of the SPWB was between acceptable and excellent, and

the internal consistency of the PIL-10 was excellent. The Cronbach's alpha in the SPWB was lower than the obtained by Díaz *et al.* (2006), except in the Purpose in Life Scale.

All the correlations were significant, $p > .01$, several of them were higher than .60 and .70, and one was higher than .80 (between global PWB and Self-acceptance).

Predictive role of Meaning in Life on Psychological Well-Being

A series of simple linear regression analysis showed that Meaning in Life was a significant predictor variable of PWB (global and dimensions), $p < .01$ (Table 2). Meaning in Life predicted 50% of the variance of global PWB and Self-acceptance, more than 40% of the variance of Purpose in Life and Environmental Mastery, 29% of the variance of Personal Growth, 16.8% of the variance of Positive Relations and 4.7% of the variance of Autonomy. As it is known, R^2 gives information about the goodness of fitness of a model, and, in regression analysis, it is a statistical measure of how well the regression line approximates the real data points. A $R^2 = 1$ indicates that the regression line perfectly fits the data, and, the closer to 1 the value of the coefficient of determination, the better is the fit. The Beta coefficient was especially high for global SPWB, Self-acceptance, Purpose in Life, Environmental Mastery, and Personal Growth.

Table 1
Descriptive statistics and internal consistency of scales

Scale	α (*)	Min.	Max.	M	SD	Correlations								
						1	2	3	4	5	6	7	8	
1 PIL-10	.85	15	69	56.02	7.92	1								
2 Global PWB	.89	77	177	134.87	17.52	.725**	1							
3 Self-acceptance	.80 (.84)	4	24	18.25	3.65	.742**	.853**	1						
4 Positive Relations	.75 (.78)	11	30	24.24	4.55	.398**	.621**	.467**	1					
5 Autonomy	.69 (.70)	6	36	25.66	5.12	.219**	.608**	.375**	.225**	1				
6 Environmental Mastery	.50 (.82)	11	29	22.13	3.49	.656**	.770**	.649**	.364**	.295**	1			
7 Personal Growth	.67 (.71)	6	24	19.93	3.16	.572**	.719**	.613**	.311**	.266**	.550**	1		
8 Purpose in Life	.79 (.70)	7	30	23.59	4.11	.711**	.793**	.739**	.318**	.281**	.645**	.614**	1	

Note. (*) Cronbach's alpha obtained by Díaz *et al.* (2006) in the 29-items SPWB.

** $p < .01$

Table 2
Summary of the models

Dependent variable	R ²	Beta	t	p
Global PWB	.500	.707	14.97	.000
Self-acceptance	.500	.707	14.97	.000
Positive Relations	.168	.410	6.72	.000
Autonomy	.047	.217	3.33	.001
Environmental Mastery	.437	.661	13.17	.000
Personal Growth	.290	.538	9.56	.000
Purpose in Life	.454	.674	13.66	.000

Note. Predicting variable: Meaning in Life.

Gender-specific differences in Psychological Well-Being

With the exception of Autonomy, women reached a higher score in all measures of PWB than men, and differences were significant in global PWB, Environmental Mastery, Personal Growth, and Purpose in Life (Table 3).

Table 3
Group statistics

Variable	Gender	M	SD	Standard error of mean	t(df)	p
Global PWB	Men	131.77	19.07	2.04	-2.12(224)	.035
	Women	136.81	16.25	1.38		
Self-acceptance	Men	17.79	3.79	.41	-1.51(224)	.134
	Women	18.54	3.54	.30		
Positive Relations	Men	23.76	4.52	.48	-1.25(224)	.213
	Women	24.53	4.56	.39		
Autonomy	Men	26.06	4.92	.53	.92(224)	.358
	Women	25.41	5.24	.45		
Environmental Mastery	Men	21.52	3.50	.38	-2.12(224)	.035
	Women	22.52	3.43	.29		
Personal Growth	Men	18.98	3.39	.36	-3.68(224)	.000
	Women	20.52	2.86	.24		
Purpose in Life	Men	22.12	4.41	.47	-4.43(224)	.000
	Women	24.52	3.64	.31		

DISCUSSION

Since the meaning in life, measured with PIL-10, includes a dimension of life satisfaction (retrospective and current) and a dimension of projection of future goals (prospective), it can significantly contribute to psychological well-being, including some intrinsic aspects, such as self-acceptance, domain of the environment, personal growth, and vital purposes, among others that are collected in the SPWB. On the other hand, both meaning in life and PWB contribute to empower the individual in order to achieve his/her self-actualization and to be happy. Because of this, it is important to study the relationship between meaning in life and PWB. Therefore, the objective of this study was to analyze the relationship between Meaning in Life and Psychological Well-Being (PWB), and the gender-specific differences in Psychological Well-Being. We hypothesized (1) that Meaning in Life is a significant predictor variable of PWB, especially of global PWB and of the dimensions Purpose in Life, Self-acceptance, Environmental Mastery, and Personal Growth; and (2) that women would reach higher scores than men, especially in Positive Relations, Personal Growth, and Purpose in Life.

As has been noted above, there are many studies that explore the relationship between Meaning in Life and PWB; but García-Alandete *et al.* (2012) are the only ones that have used jointly both the SPWB and the PIL tests (although they used a 20-items form of PIL, and this research used the 10 items form (García-Alandete *et al.*, in press). The focus of the present study was to compare our results with regard to correlation and regression analyses.

The internal consistency of the PIL-10 was excellent and the internal consistency of the SPWB was between acceptable and excellent. The values of the Cronbach's alpha coefficient were lower than the obtained by Díaz *et al.* (2006), except in the scale Purpose in Life. Especially, the internal consistency of the Environmental Mastery scale demands an explanation, since its value, $\alpha = .50$, was at the limit of acceptability according to Nunnally (1978). This scale of the PWB is composed, in the used version, of 5 items that measure various aspects of the environment, such as life demands and a possible depression state induced by them, the control and responsibility of one's own life, and the ability to modify it in case of unhappiness, and the ability to form a home, among others. Perhaps the diversity of environmental aspects to which the items of this dimension refer to, could explain its low internal consistency, but this is a matter that requires specific psychometric studies. However, as noted, the internal consistency of this scale was acceptable.

Relations between meaning in life and psychological well-being

Our results show that Meaning in Life is positively associated with all the measures of PWB, $p < .01$. The

correlations were high with Self-acceptance, $r = .742$, global PWB, $r = .725$, and Purpose in Life, $r = .711$, moderated with Environmental Mastery, $r = .656$, and Personal Growth, $r = .572$, and low with Positive Relations, $r = .398$, and Autonomy, $r = .219$. These results partially support the hypothesis and coincide with some results obtained by García-Alandete *et al.* (2012), who found that Meaning in Life was correlated significantly with global PWB, Purpose in Life, Personal Growth, and Autonomy. The dimension with the highest correlation was Purpose in Life, and these authors concluded that it was conceptually consistent, because this dimension refers to central aspects of meaning in life: the personal conviction that life is useful and meaningful (Christopher, 1999; Díaz *et al.*, 2006; Ryff, 1989a). In the present study, the Purpose in Life dimension, which is conceptually the closest to Meaning in Life, did not show the highest correlation. Instead, the dimension with the highest correlation was self-acceptance. This underlines the importance that self-esteem could have in Meaning in Life, as in the PWB (Díaz *et al.*, 2006), and this implies a question to explore in further research. Likewise, the dimensions of PWB that correlated highest with Meaning in Life concern to aspects strongly associated with human motivation for the achievement of existential meaning and personal goals (Purpose in Life), personal responsibility and control of one's life (Environmental Mastery), and self-realization (Personal Growth) (Frankl, 2012).

On the other hand, Meaning in Life was a significant predictor variable of PWB, $p < .01$, with percentages of explained variance that ranged from 4.7% (Autonomy) to 50% (global PWB and Self-acceptance). This result is partially in accordance with García-Alandete *et al.* (2012), who found that Meaning in Life accounted only for 5.6% of the variance of Autonomy, but the dimension most explained was Purpose in Life, with 59.9%. Our results indicate that Purpose in Life is the third dimension in terms of percentage of explained variance. But, in general terms, our results are very similar to the obtained by García-Alandete *et al.* (2012). The percentage of the explained variance of Environmental Mastery was close to global PWB, Self-acceptance, and Purpose in Life; and the Personal Growth variance was considerable, 29%, although it was lower than the latter. The low percentage of explained variance of Autonomy, 4.7%, draws the attention. This dimension refers to the sense of personal self-determination, independence and internal locus of control. This relationship may be associated to an individualistic conception of autonomy, a feature of contemporary Western society (Christopher, 1999). This result raises a question about the nature of this dimension, in its socio-cultural constraints, in its role in PWB, or in both directions. On the other hand, if it is a dimension with individualistic meaning, it would be contrary to the characteristics associated with the experience of Meaning in Life, especially with self-transcendence.

And this would explain the low percentage of explained variance by Meaning in Life. In conclusion, Meaning in Life is a strong predictor of PWB, both global as in its particular dimensions (with the exception of Autonomy, whose variance was explained in a low percentage).

Gender-specific differences on psychological well-being
Women reached higher scores than men in the global PWB, and in five of the six dimensions of Ryff's model -Self-acceptance, Positive Relations, Environmental Mastery, Personal Growth, and Purpose in Life-, unlike Lindfors *et al.* (2006) and Visani *et al.* (2011), in whose studies men scored higher than women in Environmental Mastery and Self-acceptance, respectively.

Differences were significant in global PWB, Environmental Mastery, Personal Growth, and Purpose in Life. The hypothesis that had been formulated was confirmed, with regard to Personal Growth (unlike García-Alandete *et al.*, 2012; like Ryff, 1989a, 1989 b) and Purpose in Life (like García-Alandete *et al.*, 2012; Lindfors *et al.*, 2006; Ryff *et al.*, 2003). On the contrary, the difference in Positive Relations was not significant (like García-Alandete *et al.*, 2012; unlike Lindfors *et al.*, 2006; Ryff, 1989a, 1991; Ryff & Keyes, 1995).

Unlike previous studies, the difference between men and women was significant in Environmental Mastery. As noted, men scored higher than women in Lindfors *et al.* (2006). On the contrary, in the present study women scored higher than men in this dimension.

On the other hand, differences were not significant in Self-acceptance (like García-Alandete *et al.*, 2012; unlike Visani *et al.*, 2011) and Autonomy (like García-Alandete *et al.*, 2012; unlike Ryff *et al.*, 2003).

In summary, women scored significantly higher than men in global PWB, Personal Growth, Purpose in Life, and -contrary to other studies- in Environmental Mastery. University studies, among other psychological and social factors not considered in the present study (e.g., cognitive styles), can be a factor that in women increases their perception of control of one's life, their experience or personal growth, and their expectations of future achievements and personal development. Possibly, the current generation of women has a greater conscience of their possibilities and potentials than past generations, and perceive themselves as competent and competing in a society traditionally dominated by men. In conditions of cultural and educational equality, certain aspects of women related to their psychological well-being may emerge strongly, surpassing those in men. However, this is only a possible hypothesis that requires specific studies.

Limitations and suggestions for future research

This study has certain limitations that need to be taken into account when considering its contributions. Some of

these limitations can be seen as fruitful avenues for future research under the same theme. First, the composition of the sample included exclusively undergraduate students. Certainly, it is the most common population in psychological research, but it would be interesting to consider other populations (e. g., clinical population), in order to verify if the relationships between meaning in life and PWB are consistent. Second, the age range did not allow to analyze the possible effect of age on PWB, both by itself and in interaction with gender. Likewise, for future studies it would be interesting to include other variables -such as subjective well-being, self-esteem, and others- in order to examine the relations and possible mediation between purpose in life and PWB. These analyses perhaps would allow the explanation of the relationships between these last two variables, beyond a simple analysis of correlation and regression. However, these limitations do not preclude acknowledging the contribution of this study, using jointly a scale from the Frankl's logotherapeutic postulates and a scale from the Ryff's theory. Both theories, one on the meaning in life and the other on PWB, have the same conceptual framework: to understand life from a eudaimonic key.

The results of the present study suggest some issues for future research, such as, for example, (1) to deepen on the conceptual and empirical differences and relations between meaning in life and PWB, (2) the mediation of socio-demographic variables on the relation between meaning in life and PWB, (3) to analyze the role of the cultural rules and standards on gender differences in PWB, and (4) to analyze the impact that social changes toward gender equality have on the psychological well-being of women (and also men), among others.

REFERENCES

- Chrisler, J. C. & McCreary, D. R. (2010). *Handbook of Gender Research in Psychology*. New York, NY: Springer.
- Christopher, J. (1999). Situating Psychological Well-Being: Exploring the Cultural Roots of Its Theory and Research. *Journal of Counseling and Development*, 77(2), 141-152. doi:10.1002/j.1556-6676.1999.tb02434.x
- Crumbaugh, J. C. & Maholick, L. T. (1969). *Manual of instructions for the Purpose in Life Test*. Saratoga, CA: Viktor Frankl Institute of Logotherapy.
- Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., & Wissing, M. P. (2011). The Eudaimonic and Hedonic Components of Happiness: Qualitative and Quantitative Findings. *Social Indicators Research*, 100(2), 185-207. doi: 10.1007/s11205-010-9632-5
- Díaz, D., Rodríguez-Carvajal, R., Blanco, A., Moreno-Jiménez, B., Gallardo, I., Valle C., & van Dierendonck, D. (2006). Adaptación española de las escalas de bienestar psicológico de Ryff [Spanish adaptation of the Ryff's Scales of Psychological Well-Being]. *Psicothema*, 18(3), 572-577.

- Eagly, A. H. (2009). The his and hers of prosocial behavior: an examination of the social psychology of gender. *American Psychologist*, 64(8), 644-58. doi: 10.1037/0003-066X.64.8.644
- Fine, C. (2010). *Delusions of Gender: How Our Minds, Society, and Neurosexism Create Difference*. New York, NY: W. W. Norton & Company.
- Frankl, V. E. (2012). *Logoterapia y análisis existencial [Logotherapy and existential analysis]*. Barcelona: Herder.
- García-Alandete, J., Rosa, E., & Sellés, P. (in press). 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*.
- García-Alandete, J., Rosa, E., Sellés, P., & Soucase, B. (2012). *Diferencias en bienestar psicológico relacionadas con el género y el sentido de la vida [Differences in psychological well-being related to gender and meaning in life]*. Manuscript submitted for publication.
- Gronlund, N. E. (1985). *Measurement and Evaluation in Teaching*. Nueva York, NY: Macmillan.
- 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. doi:10.1016/j.paid.2010.01.008
- Jordan-Young, R. (2010). *Brain Storm: The Flaws in the Science of Sex Differences*. Cambridge, MA: Harvard University Press.
- Kerlinger, F. N. & Lee, H. B. (2002). *Investigación del comportamiento. Métodos de investigación en ciencias sociales [Foundations of Behavioral Research]*. México: McGraw Hill.
- Keyes, C. (2006). Subjective well-being in mental health and human development research worldwide: An introduction. *Social Indicators Research*, 77, 1-10. doi:10.1007/s11205-005-5550-3
- Kim-Prieto, Ch., Diener, E., Tamir, M., Scollon, C., & Diener, M. (2005). Integrating the diverse definitions of happiness: A time-sequential framework of subjective well-being. *Journal of Happiness Studies*, 6, 261-300. doi:10.1007/s10902-005-7226-8
- Lindfors, P., Berntsson, L., & Lundberg, U. (2006). Factor structure of Ryff's psychological well-being scales in Swedish female and male white-collar workers. *Personality and Individual Differences*, 40(6), 1213-1222. doi:10.1016/j.paid.2005.10.016
- Martínez, E., Trujillo, A. M., & Díaz, J. P. (2011). Desarrollo y estructura de la Escala Dimensional del Sentido de la Vida [Development and structure of the Meaning of Life Dimensional Scale]. *Acta Colombiana de Psicología*, 14(2), 113-119.
- Mulders, L. T. E. (2011). *Meaning in life and its relationship to psychological well-being in adolescents*. Non-published manuscript. Retrieved from <http://igitur-archive.library.uu.nl/student-theses/2011-0322-200527/0484504%20Mulder.pdf>
- Nunnally, J. (1978). *Psychometric Theory*. Nueva York, NY: McGraw Hill.
- Peterson, C., Park, N., & Seligman, M. E. P. (2005). Orientations to happiness and life satisfaction: The full life versus the empty life. *Journal of Happiness Studies*, 6, 25-41. doi:10.1007/s10902-004-1278-z
- Rathi, N. & Rastogi, R. (2007). Meaning in Life and Psychological Well-Being in Pre-Adolescents and Adolescents. *Journal of the Indian Academy of Applied Psychology*, 33(1), 31-38.
- Ring, L., Höfer, S., McGee, H., Hickey, A., & O'Boyle, C. (2007). Individual quality of life: Can it be accounted for by psychological or subjective well-being? *Social Indicators Research*, 82, 443-461. doi:10.1007/s11205-006-9041-y
- Roothman, B., Kirsten, D. K., & Wissing, M. P. (2003). Gender differences in aspects of psychological well-being. *South African Journal of Psychology*, 33(4), 212-218.
- Rosa, E., García-Alandete, J., Sellés, P., Bernabé, G., & Soucase, B. (2012). Análisis factorial confirmatorio de los principales modelos propuestos para el Purpose-In-Life Test en una muestra de universitarios españoles [Confirmatory factor analysis of the main models proposed for the Purpose-In-Life Test among Spanish undergraduates]. *Acta Colombiana de Psicología*, 15(1), 67-76.
- Ryan, R. & Deci, E. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141-166. doi:10.1146/annurev.psych.52.1.141
- Ryan, R. M. & Huta, V. (2009). Wellness as health functioning or wellness as happiness: The importance of eudaimonic thinking. *Journal of Positive Psychology*, 4, 202-204. doi:10.1080/17439760902844285
- Ryff, C. D. & Keyes, C. L. M. (1995). The Structure of Psychological Well-Being Revisited. *Journal of Personality and Social Psychology*, 69(4), 719-727. doi:10.1037//0022-3514.69.4.719
- Ryff, C. D. & Singer, B. H. (1998). The Contours of Positive Human Health. *Psychological Inquiry*, 9(1), 1-28. doi :10.1207/s15327965pli0901_1
- Ryff, C. D. (1989a). Happiness is Everything, or is It? Explorations on the Meaning of Psychological Well-Being. *Journal of Personality and Social Psychology*, 57, 1069-1081. doi:10.1037//0022-3514.57.6.1069
- Ryff, C. D. (1989b). Beyond Ponce de Leon and Life Satisfaction: New Directions in Quest of Successful Aging. *International Journal of Behavioral Development*, 12, 35-55. doi:10.1177/016502548901200102
- Ryff, C. D. (1991). Possible Selves in Adulthood and Old Age: A Tale of Shifting Horizons. *Psychology and Aging*, 6, 286-29. doi:10.1037//0882-7974.6.2.286
- Ryff, C. D. (1995). Psychological Well-Being in Adult Life. *Current Directions In Psychological Science*, 4(4), 99-104. doi :10.1111/1467-8721.ep10772395
- Ryff, C. D., Keyes, C. L. M., & Hughes, D. L. (2003) Status Inequalities, Perceived Discrimination, and Eudaimonic Well-Being: Do the Challenges of Minority Life Hone Purpose and Growth? *Journal of Health and Social Behavior*, 44(3), 275-291. doi:10.2307/1519779
- Steger, M. F. (in press). Experiencing meaning in life: Optimal functioning at the nexus of spirituality, psychopathology, and well-being. In P. T. P. Wong & P. S. Fry (Eds.), *The human quest for meaning*. New York, NY: Routledge. Retrieved from http://michaelfsteger.com/Documents/_Steger,%20Human%20Quest%20chapter.pdf
- Visani, D., Albiéri, E., Offidani, E., Ottolini, F., Tomba, E., & Ruini, C. (2011). Gender differences in psychological well-being and distress during adolescence. In I. Brdar (Ed.), *The human pursuit of well-being: A cultural approach* (pp. 65-70). New York, NY: Springer Science + Business Media.
- Zika, S. & Chamberlain, K. (1992). On the relation between meaning in life and psychological well-being. *British Journal of Psychology*, 83(1), 133-145. doi:10.1111/j.2044-8295.1992.tb02429.x