

ADOLESCENTS' SUBJECTIVE AND PSYCHOLOGICAL WELL-BEING: THE ROLE OF MEANING IN LIFE

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Abstract: This study explored the association between meaning in life, subjective well-being and psychological well-being among adolescents. Participants were 477 students, aged 14–17 years. Meaning in life, psychological well-being and subjective well-being (satisfaction with life, positive affect, negative affect) were assessed through standardized self-report questionnaires. The results revealed significant correlations between meaning in life and subjective or psychological well-being among adolescents. Additionally, our findings highlighted the significance of particular sources of meaning in life, such as fair treatment and achievement, in promoting students' well-being. Implications of these results for school counseling are briefly discussed.

Key words: Adolescents, Meaning in life, Well-being

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INTRODUCTION

There is a growing body of theoretical and empirical literature in the field of positive psychology concerning the nature and structure of well-being. So far, well-being researchers have focused either on subjective well-being, that is, how people experience the quality of their life, or psychological well-being, that is, experiencing positive affective states and reaching one's potential, and only a few of them have examined both dimensions of overall well-being (Ryan & Deci, 2001). In addition, no study so far has investigated the connection of meaning in life to both subjective and psychological well-being. The present study attempted to address this significant void in the literature by examining the importance of particular sources of personal meaning in promoting adolescents' sense of well-being.

Subjective well-being is defined as "a person's cognitive and affective evaluations of his or her life" (Diener, Lucas, & Oishi, 2002, p. 63), and includes positive and negative affect, as well as life satisfaction (Diener, 2000). The concept of subjective well-being virtually represents a more scientific term for what people usually mean by happiness (Seligman & Csikszentmihalyi, 2000). It is also linked to the hedonic philosophy, according to which welfare is obtained when the individual experiences a high level of satisfaction with his/her life, a greater positive affect and little or less negative affect, or in other words when enjoyment increases and pain decreases (Ryan & Deci, 2001).

Psychological well-being has been defined as engagement with existential challenges of life (Ryff & Singer, 2008) and is arguably best represented by Ryff's (1989) conception of the six factors of positive relations with others, self-acceptance, purpose in life, autonomy, environmental mastery, and personal growth. Psychological well-being has been conceptualized as a eudaimonic approach of well-being, since the attention of researchers who have studied it focuses on the idea that living a life of virtue, and actualizing one's inherent potentials is the path to well-being (Ryan & Deci, 2001; Keyes, Shmotkin, & Ryff, 2002). There is already evidence suggesting that psychological well-being is positively correlated with educational and occupational status (Marmot, Ryff, Bumpass, Shipley, & Marks, 1997; Ryff & Singer, 2008) and negatively correlated with passive procrastination and psychological distress (Fava, 2012; Habelrih & Hicks, 2015; Winefield, Gill, Taylor, & Pilkington, 2012). In a Greek sample of university students, both physical and mental health were positively related to psychological well-being. The association was most evident in the well-being subscales of environmental mastery (e.g., when people feel they are in charge of the situation in which they live) and self-acceptance (Leontopoulou & Triliva, 2012).

Although it is evident that there is a conceptual distinction between subjective and psychological well-being, and despite past disagreement on the relations between them, contemporary psychologists recognize the strengths and value of both approaches and consider both of them as important dimensions of the overall well-being picture (Henderson & Knight, 2012). Thus, research related to the contribution of meaning in life to well-being should include an evaluation of both dimensions.

Frankl (1985) was one of the first psychologists to emphasize the importance of purpose and meaning in life. Since then, dozens of studies have been conducted that demonstrate the positive effects of meaning in people's lives (Bonebright, Clay, & Ankenmann, 2000; Chamberlain & Zika, 1988; Compton, 2000; Debats, 1996; King & Napa, 1998; Paradise & Kernis, 2002; Steger, Kashdan, Sullivan, & Lorentz, 2008). Similarly, in a sample of 401 young Greek men, higher meaning in life was found to be associated with lower depressive symptomatology, with the meaning in life dimensions of "connectedness with life" and "goal achievement" to successfully differentiate between individuals with high, moderate, and low depressive symptomatology (Kleftaras & Psarra, 2012)

Most theorists, in their attempt to define meaning in life, refer to three different components: (a) a belief that one's life is meaningful (cognitive component), (b) a striving for meaning in one's life (motivational component), and (c) a feeling that one's life is meaningful (affective component) (Mascaro & Rosen, 2008; Reker & Wong, 1988; Ryff & Singer, 1998). Wong (1998), who investigated implicit theories of what makes life worth living, identified seven sources of meaning: achievement, religion, self-transcendence, relationship, intimacy, fairness, and self-acceptance. According to Schnell (2010), "Sources of meaning represent generalized and relatively stable orientations towards life ... motivate commitment, give direction to life, and increase its significance" (p. 353-354).

The theoretical conceptualization of meaning in life points to a possible association between meaning and well-being. In fact, in some cases personal meaning is considered to be an important dimension of well-being. For example, Seligman (2011), extending his earlier conception of authentic happiness, recently proposed a five-component model using the acronym PERMA in order to describe the elements of a good life: Positive emotion, Engagement, Relationship, Meaning, and Accomplishment. However, even though meaning is related to well-being, research indicates that meaning in life remains relatively stable and independent from other forms of well-being (Steger & Kashdan, 2007).

Empirical research further bolsters the claim that meaning in life and mental health are significantly related. So far, studies in clinical and non-clinical adult populations have shown that personal meaning is positively correlated with quality of

life (Gingras, 2009), psychological and subjective well-being (Ryff & Keyes, 1995; Zika & Chamberlain, 1992), spiritual well-being (Lang, 1994), and hope (Mascaro & Rosen, 2005). It also appears to be negatively correlated with depression (Chamberlain & Zika, 1988; Lester & Badro, 1992; Mascaro & Rosen, 2008; Robak & Griffin, 2000) and psychological distress (Debats, Van Der Lubbe, & Wezeman, 1993; Robertson, 1997).

To summarize, the importance of meaning in life and its connection to psychological and subjective well-being in adults appears to be well established (Mascaro, 2006; Mascaro & Rosen, 2005; Ryff, 1989; Ryff & Keyes, 1995). Yet, there is scant knowledge of the positive effects of personal meaning in adolescents' lives. This is important given that adolescence is considered a critical stage in a person's life, since most physical, psychological, spiritual and social changes take place during this period (Kosmopoulos, 2000; Lerner & Galambos, 1998). In addition, adolescents have long been regarded as struggling with identity formation (Erikson, 1968; Kosmopoulos, 2000) and finding a meaning or purpose in life help them attain identity achievement, further contributing to their psychological well-being (Kroger, 2007). Thus, meaning in life may have a crucial role for the successful transition from childhood to adulthood.

In one of the first studies to examine the issue, DeLazzari (2000) used the Well-Being Manifestation Measure Scale-WBMMS (Masse et al., 1998) and found that personal meaning was a significant predictor of psychological well-being and life satisfaction among high school students. Similarly, in Rathi and Rastogi's (2007) study, adolescents' meaning in life was highly correlated with the dimensions of WBMMS (control of self and events, happiness, social involvement, self-esteem, mental balance, and sociability). In a large adolescent sample ($N = 1977$ secondary school students), Brassai, Piko, and Steger (2011) found that meaning in life played a protective role against various risky health behaviors, except smoking and binge eating. Finally, in the study reported by Ho, Cheung, and Cheung (2010), meaning in life was significantly associated with the dimensions of life satisfaction and psychosocial problems among adolescents in Hong Kong. Thus, paralleling similar studies in adults, these findings collectively suggest that meaning in life plays a role in adolescent's well-being as well.

Although valuable, the above mentioned studies leave many questions regarding the importance of the meaning in life in adolescence unanswered. To begin with, the relationship between meaning in life and adolescents' psychological well-being as measured by Ryff's model has yet to be empirically examined. In addition, the assessment of the impact of personal meaning on all three components of subjective well-being (life satisfaction, positive affect, and negative affect) has also been

neglected for this age group. Finally, studies have yet to establish the predictive value particular sources of meaning in life (e.g., achievement, relationship, intimacy, etc) in adolescents' (subjective and psychological) well-being.

The present study

The present study sought to examine two research questions with regard to meaning in life, subjective well-being, and psychological well-being in adolescents: (a) is meaning in life associated with subjective and psychological well-being among adolescents? and (b) which sources of meaning in life contribute to the prediction of adolescents' subjective and psychological well-being? Given the literature review presented above, we hypothesized that meaning in life will be strongly correlated with both subjective (Hypothesis 1) and psychological (Hypothesis 2) well-being among adolescents. Regarding the contribution of different sources of meaning in life we did not formulate specific hypotheses, given the mixed results reported in the literature with regard to differences in sources according to age (Grouden & Jose, 2014). Nevertheless, we did expect that achievement, relationship, intimacy, and self-acceptance will emerge as predictors of subjective and psychological well-being, given their prominence in adolescence (Booth & Gerard, 2011; Orth & Robins, 2014; Shulman, Laursen, Kalman, & Karpovsky, 2010).

METHOD

Participants and Procedure

A total of 477 Greek adolescents participated in this study (50.9% males and 49.1% females). The age of the sample ranged from 14 to 17 years, with a mean age of 15.52 years ($SD = 0.99$). All participants were upper secondary school students, coming from various socio-economic backgrounds. They were invited to participate in the study on a voluntary basis. Informed consent was obtained from both students and school directors before the study began.

The questionnaires were distributed to students during class hour and they were asked to give responses according to the instructions provided in the questionnaire. The researcher (third author) was present during the entire time that the respondents were completing the questionnaires to answer questions. After completing the questionnaires, participants were debriefed and thanked for their participation.

Measures

Meaning in life

To measure meaning in life, the brief version of Personal Meaning Profile developed by Wong (1998) was used. Personal Meaning Profile-Brief (PMP-B) is a 21-item scale consisting of seven subscales (three items each): Achievement (sample item: “I like challenge”), Relationship (sample item: “I have a number of good friends”), Religion (sample item: “I seek to do God’s will”), Self-transcendence (sample item: “I believe I can make a difference in the world”), Self-acceptance (sample item: “I accept my limitations”), Intimacy (sample item: “I have someone to share intimate feelings with”), and Fair Treatment (sample item: “Life has treated me fairly”) (McDonald, Wong, & Gingras, 2012). The items evaluate the extent to which each statement characterizes the respondent’s life, based on a 7-point Likert scale (1 = “not at all” to 7 = “a great deal”). The full version of PMP has been used mainly in research with adult population; however, it has also been used with adolescents, showing satisfactory reliability (see DeLazzari, 2000; Rathi & Rastogi, 2007). Wong (1998) found an overall Cronbach’s alpha coefficient of .93 and internal consistency coefficients for the subscales ranging from .54 to .91. In this study, the internal consistency coefficients were .81 for the total scale, .64 for the Achievement and the Relationship subscales, .87 for the Religion subscale, .69 for the Self-transcendence subscale, .53 for the Self-acceptance subscale, .77 for the Intimacy subscale, and .72 for the Fair Treatment subscale.

Subjective well-being

In order to measure the two dimensions (cognitive and affective) of subjective well-being, two scales were used respectively, the Satisfaction with Life Scale (SWLS) and the Scale of Positive And Negative Experience (SPANE).

The SWLS is a 5-item self-report questionnaire that assesses respondents’ cognitive evaluations of life satisfaction on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree) (Diener, Emmons, Larsen, & Griffin, 1985). Sample items include “In most ways my life is close to my ideal” and “The conditions of my life are excellent”. Responses are summed to yield an overall score on life satisfaction. Research demonstrates acceptable psychometric properties for the SWLS (Cronbach’s alpha = .87, two-month test-retest reliability = .82; Diener et al., 1985). In the current sample, the alpha coefficient was .79.

The SPANE is a 12-item scale, with six items devoted to positive experiences (SPANE-P) and six items designed to assess respondents' negative experiences (SPANE-N) during the last four weeks on a 5-point Likert scale (Diener et al., 2009). The main advantage of the SPANE is that, for both the positive and negative items, three of the items are general (e.g., pleasant, unpleasant) and three per subscale are more specific (e.g., joyful, sad). This allows the SPANE to reflect the full range of emotions and feelings that a respondent might feel, without creating a list of hundreds of items to fully reflect the diversity of positive and negative feelings. The developers reported high reliability for the two subscales: positive ($\alpha = .87$) and negative ($\alpha = .81$) experiences (Diener et al., 2009). In this study, the internal consistency coefficients were .84 and .79, respectively.

Psychological well-being

Psychological well-being was measured with the 54-item Psychological Well-being Scale (PWBS), which was developed by Ryff (1995). Items tap six dimensions of psychological well-being (9 items per dimension): Autonomy (e.g., "I have confidence in my opinions"), Environmental Mastery (e.g., "In general, I feel I am in charge of the situation in which I live"), Personal Growth (e.g., "I think it is important to have new experiences that challenge how you think about yourself and the world"), Positive Relations with Others (e.g., "People would describe as a giving person, willing to share my time with others"), Purpose in Life (e.g., "Some people wander aimlessly through life, but I am not one of them"), and Self-acceptance (e.g., "I like most aspects of my personality"). All items were measured on a 6-point Likert scale, where 1 indicated strong disagreement and 6 indicated strong agreement. For each dimension, a high score indicates that the respondent has a mastery of that area in his or her life (Ryff, 1995). This scale has been used extensively in previous research and with various populations, (e.g., Cheng & Chan, 2005; Clarke, Marshall, Ryff, & Rosenthal, 2000; Fernandes, Vasconcelos-Raposo, & Teixeira, 2010; Hickson et al., 2008; Leontopoulou & Triliva, 2012; Vleioras & Bosma, 2005) due to its good psychometric properties (Cronbach's alpha coefficients ranging from .83 to .91, and test-retest reliability ranging between .81 to .85 – Ryff & Keyes, 1995). In the present study, the internal consistency coefficients were .91 for the total scale, .77 for the Positive Relations with Others and the Self-acceptance subscales, .75 for the Environmental Mastery subscale, .72 for the Autonomy subscale, .69 for the Purpose in Life subscale, and .60 for the Personal Growth subscale.

All scales used in the current study were translated into Greek by the third author (C.B.) and a translator having Greek as mother tongue translated the scales back into English to establish equivalence.

RESULTS

All analyses were performed using SPSS (v.21) for windows. Missing values were replaced with the variable mean. Correlations were run to assess the relationship between meaning in life, subjective well-being (satisfaction with life, positive affect, negative affect), and psychological well-being. Means and standard deviations of PMP-B, SWLS, SPANE-P, SPANE-N and PWBS as well as correlation analyses are summarized in Table 1. As shown in Table 1, meaning in life was positively correlated with satisfaction with life, positive affect, and psychological well-being, and negatively correlated with negative affect.

Table 1. Descriptive statistics and correlations among variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Personal Meaning	4.60	0.73	-				
2. Satisfaction with Life	4.85	1.15	.517*	-			
3. Positive affect	3.79	0.69	.423*	.575*	-		
4. Negative affect	2.45	0.74	-.259*	-.426*	-.542*	-	
5. Psychological well-being	4.32	0.53	.564*	.604*	.499*	-.457*	-

Note: * $p < .001$

Correlation analyses were also performed in order to examine the relationship between personal meaning and the six dimensions of psychological well-being. Meaning in life was significantly and positively correlated with all the dimensions of psychological well-being. Nevertheless, a distinctive pattern of correlations emerged with the psychological well-being dimensions correlating most strongly with environmental mastery, $r = .486$, $p < .001$, positive relations with others, $r = .524$, $p < .001$, and self-acceptance, $r = .506$, $p < .001$; less strongly correlated with autonomy, $r = .275$, $p < .001$, personal growth, $r = .313$, $p < .001$, and purpose in life, $r = .343$, $p < .001$.

All seven sources of meaning in life (achievement, relationship, religion, self-transcendence, self-acceptance, intimacy, and fair treatment) were used in a series of multiple regression analyses to predict satisfaction with life, positive affect, negative affect, and psychological well-being. The intercorrelations among variables are shown in Table 2. The Enter method of regression analysis was selected because we had no theoretical basis for considering any variable to be prior to any other.

Table 2. Correlations between PMP-B dimensions and satisfaction with life, positive affect, negative affect, and psychological well-being

Variables	PMP-B dimensions						
	Achievement	Relationship	Religion	Self-transcendence	Self-acceptance	Intimacy	Fair-treatment
Satisfaction with life	.340**	.360**	.119*	.243**	.173**	.308**	.587**
Positive affect	.259**	.326**	.138**	.215**	.086	.284**	.432**
Negative affect	-.210**	-.229**	-.053	-.150**	-.124**	-.042	-.371**
Psychological well-being	.487**	.486**	.048	.417**	.160**	.314**	.585**

Note: PMP-B = Personal Meaning Profile-Brief; * $p < .05$, ** $p < .001$.

As can be seen in Table 2, all correlations, except for the ones between positive affect and self-acceptance, negative affect and religion, negative affect and intimacy, and psychological well-being and religion, were statistically significant. The associations between the variables ranged from weak to medium. Results of the multiple regression analyses with the final models are displayed in Table 3.

Table 3. Results of the multiple regression analyses

Dependent Variables	Independent Variables	<i>B</i>	<i>SE-B</i>	<i>Beta</i>	<i>t</i>
Satisfaction with life	Fair treatment	0.533	0.044	0.492***	12.20
	Achievement	0.225	0.045	0.13***	4.98
	Intimacy	0.087	0.030	0.119**	2.92
Positive affect	Fair treatment	0.210	0.029	0.326**	7.16
	Intimacy	0.055	0.020	0.127**	2.76
	Achievement	0.079	0.030	0.125**	2.79
Negative affect	Fair treatment	-0.217	0.033	-0.311**	-6.51
	Achievement	-0.100	0.034	-0.147**	-2.91
	Intimacy	0.054	0.023	0.115*	2.38
Psychological well-being	Fair treatment	0.155	0.018	0.361**	8.72
	Achievement	0.100	0.018	0.239**	5.43
	Relationship	0.050	0.021	0.109**	2.34
	Self-transcendence	0.041	0.016	0.109*	2.52

Note: * $p < .05$, ** $p < .001$, *** $p < .001$.

Satisfaction with life was best predicted by fair treatment, achievement and intimacy, with the overall model being statistically significant, $F(7, 476) = 44.72$, $p < .001$. The standardized Beta coefficients give a measure of the contribution of each variable to the model. Thus, the most important predictor of satisfaction with life was fair treatment, followed by achievement and intimacy. This model accounted for almost 40% of the variance in the satisfaction with life scores (Adjusted $R^2 = .391$).

The optimal subset of predictors for positive affect included the same sources of meaning: fair treatment, intimacy and achievement. This set of sources contributed significantly, $F(7, 476) = 20.68, p < .001$, to the prediction of positive affect, $R^2 = .236$, Adjusted $R^2 = .225$, and, similarly to satisfaction with life, was positively correlated to positive affect. That is, students who had higher fair treatment, intimacy and achievement scores, tended to display higher positive affect.

Three sources of meaning emerged as significant predictors of adolescents' negative affect, i.e., fair treatment, achievement and intimacy, with the overall model being significant, $F(7, 476) = 12.61, p < .001$. All significant predictors accounted for 15.8% of the variance (Adjusted $R^2 = .146$), and both fair treatment and achievement correlated negatively with negative affect, whereas intimacy correlated positively with the same dependent variable. Thus, adolescents with higher fair treatment and achievement scores tended to display lower negative affect, whereas those with higher intimacy scores tended to display higher negative affect.

As far as psychological well-being is concerned, a significant model of four sources of meaning emerged, $F(7, 476) = 38.82, p < .001$. Important predictors - from the most (statistically) significant to the least - entailed fair treatment, achievement, relationship and self-transcendence. This model accounted for 36.7% of the variance in the psychological well-being scores (Adjusted $R^2 = .358$).

To summarize, in each case, the variable fair treatment emerged as the most important predictor, followed by achievement (except for the case of positive affect, whose second most important predictor was intimacy). Results, also, indicated that relationship and self-transcendence variables affect only psychological well-being scores, and that religion and self-acceptance did not appear to be significant predictors of adolescents' subjective and psychological well-being.

DISCUSSION

The aim of this study was to investigate the relations between meaning in life, subjective well-being, and psychological well-being in adolescents. In line with our hypotheses, meaning in life was positively associated with the positive components of subjective well-being (life satisfaction and positive affect), and negatively associated with negative affect. Moreover, meaning in life had a stronger association with positive rather than with negative well-being dimensions. There was also a positive relationship between meaning in life and psychological well-being among adolescents. Thus, adolescents who experienced a meaningful life also experienced high psychological and subjective well-being and vice versa.

The results of this study are consistent with previous research with adult samples demonstrating associations between meaning in life and the two different dimensions (subjective and psychological) of well-being (Garcia-Alandete, 2015; Kleftaras & Psarra, 2012; Ryff & Keyes, 1995; Zika & Chamberlain, 1992). They are also consistent with previous studies with adolescent samples that found meaning in life to be associated with psychological well-being (Brassai et al., 2011; Kiang, & Fuligni, 2010; Masse et al., 1998). Therefore, taken together, these findings suggest that meaning in life plays an important role in people's lives in relation to their well-being, regardless of age.

To the best of our knowledge, this is the first study examining which specific sources of meaning in life contribute to adolescents' subjective and psychological well-being. In line with our initial expectations, achievement, relationship, intimacy and self-acceptance did emerge as significant predictors of adolescents' well-being. Nonetheless, contrary to our expectations, fair treatment was the most important predictor of adolescents' subjective and psychological well-being. This particular source of meaning in life refers to the belief that there is justice in life and in relationships (e.g., "I am treated fairly by others", and "Life has treated me fairly") (McDonald et al., 2012). In retrospect, it seems reasonable to expect that it would be difficult for adolescents to experience positive affect and satisfaction with their life and to develop their full potential, when they feel that life is not characterized by fairness. This is particularly so, since studies on children's moral-cognitive development indicate that more elaborate concepts of fairness and social justice start to develop in early adolescence (Daniel, Dys, Buchmann, & Malti, 2014, 2016). It is important to note that, by the time this study was conducted, Greece had already submerged in a deep and prolonged economic recession due to its staggering debt crisis. With jobless rate above 50%, young Greeks have been hit especially hard by this debt crisis, with many analysts and experts in Greece currently talking about the "lost generation." No wonder, young people in Greece are alarmed at this possibility and might be particularly concerned about matters of social inclusion, social justice and fair treatment (see also Brouzos, Vassilopoulos, Korfiati, & Baourda, 2015).

Achievement emerged as the second most important predictor of students' well-being, since this source of meaning in life along with fair treatment contributed to the prediction of both of the dimensions of well-being. The Achievement subscale of the PMP-B evaluates one's sense of meaning through various forms of achievement such as "I am persistent and resourceful in attaining my goals", and "I like a challenge" (McDonald et al., 2012). In a particularly competitive economic environment – sustained by the ongoing recession – Greek adolescents face the pressures of

succeeding in their academic and future pursuits as well as in their social relationships (Allen, Porter, McFarland, Marsh, & McElhaney, 2005; Lerner & Galambos, 1998), and thus achievement is a vital part of their self-identity and emotional well-being.

The observed impact of intimacy and relationship on students' psychological and subjective well-being supports the findings of research on meaningful life categories indicating interpersonal relationships as one of the most important categories of meaning in life (De Vogler & Ebersole, 1980, 1983; Grouden & Jose, 2014). Self-transcendence (i.e., one's belief that he/she can make a significant contribution to the world and to society) was significantly related with the positive and negative components of subjective well-being as well as with psychological well-being. Nevertheless, it was found to be significant predictor of psychological and not subjective well-being. Unlike the aforementioned, the sources of self-acceptance (e.g., accepting what cannot be changed) and religion (e.g., seeking to do God's will) did not appear to be significant predictors of students' well-being, though they both had significant correlations with specific dimensions of well-being. Regarding religion, the results are not unexpected, given past research showing that this source of meaning is not valued as important by younger age groups (Grouden & Jose, 2014); however, replication studies are needed to confirm this finding.

Limitations

There are a number of limitations of this study. The cross-sectional design did not allow us to test causal relationships among the variables. Future longitudinal research tracking changes in personal meaning and well-being over time would allow us to make causal inferences. Another limitation is the use of self-report instruments and the possible effects of social desirability. The fact that this study was conducted on adolescents coming from urban areas limits the generalization of the results to other populations. In addition, caution is needed in generalizing results to other cultural or socio-economic contexts because this study was carried out in Greece during a period of deep and unprecedented economic recession. Furthermore, for some of the subscales used in the current study the alpha coefficient was rather low (e.g., the self-acceptance subscale of the PMP-B), probably due to the small number of items included. However, it should be noted that similar alpha coefficients were reported by the scale developers (e.g., Wong, 1998). In addition, most of the scales reported in the current study have been used successfully in various studies, with both Greek and non-Greek participants. Last but not least, future research is needed to broaden the participants' age limit and include both younger and older adolescents.

Implications for school counseling

Personal meaning is considered a key element of adolescents' positive growth and happiness. Our findings can have implications for both school counseling and the educational setting. Educators could act as facilitators who support adolescents in their quest for meaning and identity formation. To this aim, meaning-centered counseling techniques could be employed to help young people explore, acquire and deepen meaning in their life, as well as expand the meaning in life structures they possess. Given the current findings, it is also important for schools to ensure positive interpersonal relationships, fairness, accomplishments, and equal opportunities for students. Differentiated or individualized instruction could play a significant role in contributing to this goal.

In summary, this study provides further support for a significant relationship between meaning in life and the two different dimensions of well-being, subjective and psychological, among adolescents. It also highlights the importance of particular sources of meaning in life, such as fair treatment and achievement in promoting adolescents' well-being. The results could have interesting implications for the development and implementation of psychoeducational interventions designed to address adolescent counseling needs in an era of global financial crisis.

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