

## Happiness in high school students: autonomy, relatedness, competence and meaning in life

**Nur Demirbas-Celik\***, Alanya Alaaddin Keykubat University, Alanya, Antalya 07450, Turkey

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### Abstract

The present study examines the roles of the satisfaction of basic psychological needs and meaning in life (MIL) on high school students' happiness. In the study, the basic psychological needs scale, MIL questionnaire, the positive and negative affect schedule and the satisfaction with life scale were used as instruments. Happiness or subjective well-being (SWB) contains three components: life satisfaction, positive affect and negative affect. The data were analysed through the Pearson product-moment correlation coefficient technique and multiple linear regression analysis. According to results, autonomy, competence, relatedness and MIL predict SWB significantly. These three variables explain 56% of the total variance. SWB is explained by relatedness, autonomy and competence for females, respectively, and for males competence, MIL and relatedness, respectively. The results were further examined in light of recent research and implications for counselling and school with high school students subjects are discussed.

**Keywords:** Subjective well-being, basic psychological needs, meaning in life, gender, high school students.

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\* ADDRESS FOR CORRESPONDENCE: **Nur Demirbas-Celik**, Alanya Alaaddin Keykubat University, Alanya, Antalya 07450, Turkey.  
E-mail address: [nur.celik@alanya.edu.tr](mailto:nur.celik@alanya.edu.tr) / Tel.: +90 242 510 60 60

## 1. Introduction

Basic psychological needs fall into the self-determination theory (SDT), a theory of Ryan and Deci (2000a) and Deci and Ryan (2000). In this theory, a person who is motivated to take action is able to start his own activities, take responsibility and make autonomous decisions is defined as self-determined (Deci & Ryan, 2000). According to SDT, people possess an intrinsic motivation from birth in order to take action. However, people are not always able to act upon intrinsic motivation, and the motivation to elicit activity in a person might come from external sources. In SDT, this is called extrinsic motivation. At this point it is important to regulate and internalise extrinsic motivation. In the model proposed in SDT (Ryan & Deci, 2000b) the importance of the satisfaction of basic psychological needs in the processes of sustaining motivation and internalising extrinsic motivation is underlined. In SDT, the basic psychological needs are defined as 'autonomy, relatedness and competence' (Deci & Ryan, 2000; Ryan & Deci, 2000a). The need for autonomy is a need of the person to display all of the behaviours that are self-approved and in harmony with their integrated self. Autonomy is defined as the person experiencing a sense of preference, approval and volition with regards to initialising, sustaining and ending behaviours. People's autonomy is supported by the social environment in terms of urging activities which are in harmony with their true selves, contrary to those activities which only serve other people's egoist desires or expectations (Weinstein, Ryan & Deci, 2012). The need for relatedness is a sense of belonging that stems from the attention and warmth that the person receives from others. Social environments relate to people openly and authentically, and express caring and concern, providing them with relational support (Weinstein, Ryan & Deci, 2012). The need for competence is the person feeling effective in their interactions with their environment. Positive and constructive feedback provided by the social environment supports competence in people, and the social environment promotes people's competence by calibrating activities to be optimally challenging (Weinstein, Ryan & Deci, 2012). The satisfaction of these three basic psychological needs contributes to personal growth and well-being (Deci & Ryan, 2000; Reis, Sheldon, Gable, Roscoe & Ryan, 2000; Ryan, 1995; Ryan & Deci, 2000b). In a research study done with participants between the ages 16 and 32 from four different cultures, a close correlation between basic psychological needs and well-being was discovered (Chen et al., 2014). A research study done with adolescents between the ages of 12 and 18 showed that satisfaction of each basic psychological need increases subjective well-being (SWB) through authenticity (Thomaes, Sedikides, Bos, Hutteman & Reijntjes, 2017). In a related research study, it was underlined that authenticity carries critical importance for adolescents. In a research study examining adolescents' school-related SWB the importance of satisfaction of needs, and especially the importance of competence for teens was emphasised (Tian, Chen & Huebner, 2014). Similarly, in many studies done on adolescents the satisfaction of basic psychological needs was underlined as a potential descriptor of well-being (Eryilmaz, 2012; Lubans et al., 2016).

According to Ryan and Deci (2000a), in order for a psychological requirement to be counted among psychological needs, it needs to correspond to two criteria: feeling its absence when the psychological need is not met, and the need being a determinant of well-being. Ryan and Deci (2000a) have argued whether 'meaningfulness' and 'self-esteem' should be considered basic psychological needs in addition to the three basic psychological needs. Ryan and Deci (2000a) view meaning in life (MIL) as a supplementary factor to basic psychological needs. They express the cognizance of MIL with activities such as forming close relations, purposeful activities, attachment to values; these all cover the three basic psychological needs (Ryan & Deci, 2000a). Meanwhile, Frankl (1963) asserts that meaning is the basic motivation for people.

Meaning is assessed as the person's mental representation of events, relationships and objects (Baumeister, 1991). Another definition states that it is the degree at which the person has a goal, a mission or an overarching purpose of life that helps them make sense of their lives (Steger, 2012). Although there are varying definitions of MIL, many research studies have determined a link between it and well-being. In a study done with adolescents, it was found that having meaningful lives plays a protective role against health risk behaviours and poor psychological health (Brassai, Piko & Steger,

2011). In a study with 1807 adolescents, it was determined that MIL predicts positive well-being positively, and negative well-being negatively (Ho, Cheung & Cheung, 2010).

As we can see, both basic psychological needs and MIL are important variables that contribute to happiness. In literature SWB is often used in lieu of happiness in daily life. SWB consists of people's assessments of their own lives (Diener, Scollon & Lucas, 2003; Diener, Suh, & Oishi, 1997). In a general sense, SWB is comprised of an emotional element, which involves a positive and a negative affect, and a cognitive element that involves life satisfaction (Diener, 2000). In a study examining the variables that impact the well-being levels in adolescents (McCullough, Huebner & Laughlin, 2000), it was emphasised that taking up a hobby, helping others and chatting with friends are powerful factors that explain life satisfaction. In another research study where happiness was examined along different variables such as age, class, gender and parental level of education, it was inferred that sociodemographic factors do not constitute notable differences in predicting happiness in children and adolescents (Gilman & Huebner, 2006). In a study done with adolescents in Turkey, it was inferred that happiness levels do not vary by gender; however, pursuing life goals is important in regard to happiness (Cihangir-Cankaya & Meydan, 2018). Keeping in mind that purpose and MIL are occasionally used interchangeably, it is reasonable that meaning of life is important in explaining happiness in adolescents. Indeed, in a study conducted with adolescents, it was determined that SBPN has an intermediary role in the link between personality and MIL (Demirbas-Celik & Ismen-Gazioglu, 2017). The purpose of this study is to investigate the predictivity of basic psychological needs and MIL in high school students. Upon examining the literature, we can see that all three basic psychological needs are interrelated. Most studies evaluate the three basic needs as a whole. Considering the relationship between each need, the studies in recent years show a tendency to examine them separately. Studies also state that MIL and basic psychological needs scale (BPNS) do not display notable differences in regard to gender. Similarly, there are many studies results that gender does not constitute a large difference in happiness. Two hypotheses were tested within this context:

1. Both basic psychological needs and MIL explain well-being in high school students.
2. Factors (SBPN and MIL) that explain well-being in females and males are similar.

## **2. Method**

In this research study, the three basic psychological needs and the predictivity of MIL which is linked to these needs among well-being were analysed by multiple regression analysis. This study was designed as a correlational study.

### **2.1. Participants**

The study group for this research is composed of 295 high school students (142 male and 153 female) who receive education in Turkey. The students are between the ages of 15 and 19, and the age average is 16.1.

### **2.2. Instruments**

#### **2.2.1. The basic psychological needs scale (BPNS)**

The scale was developed by Gagne (2003) to measure the satisfaction of basic psychological needs. The BPNS consists of 21 items relating to the needs of autonomy, competence and relatedness. Eight, six and seven items out of these 21 items measure the needs of competence ( $\alpha = 0.71$ ), relatedness ( $\alpha = 0.71$ ) and autonomy ( $\alpha = 0.69$ ), respectively. The scale was rated on a 7-point Likert scale (1 = Not At All True and 7 = Very True). The validity and reliability study of the BNSG-High School Form was conducted by Sahin and Korkut-Owen (2009). The internal consistency coefficients for the subscales of autonomy, competence and relatedness are 0.69, 0.64 and 0.77, respectively; the reliability of the total scale is 0.82 (Sahin and Korkut-Owen, 2009). For the present study, the internal consistency

coefficients of the subscales were calculated as follows: autonomy as  $\alpha = 0.74$ ; competence as  $\alpha = 0.72$  and relatedness as  $\alpha = 0.78$ .

### 2.2.2. The meaning in life (MIL)

MIL was assessed with the Presence of Meaning Scale (Steger, Frazier, Oishi & Kaler, 2006) which includes five items (e.g., ‘My life has a clear sense of purpose.’) evaluated on a scale from 1 (Not at all true) to 7 (Very true). The Reliability was measured at = 0.92. In the conducted validity and reliability studies of the scale for high school students in Turkey, the internal consistency coefficient was calculated to be 0.79 (Demirbas-Celik & Ismen-Gazioglu, 2015). For the current sample, the Alpha reliability was found to be 0.84.

### 2.2.3. Subjective well-being (SWB)

Diener’s (1984) tripartite model of SWB contains three components: life satisfaction, positive affect and negative affect. Life satisfaction was measured with the 5-item satisfaction with life scale (Diener, Emmons, Larsen & Griffin, 1985). The reliability of the scale is  $\alpha = 0.92$ . In a study with high school students in Turkey, the reliability was calculated to be 0.83 (Korkut-Owen, Demirbas-Celik & Dogan, 2018). In this study, the reliability coefficient is 0.83. The positive and negative affects were measured with the positive and negative affect schedule (PANAS), and was 0.88 and 0.87 for PA and NA, respectively. The adaptation of the scale to Turkish was made by Gencoz (2000) ( $\alpha = 0.83$  and 0.86, respectively). The present study has found that the Cronbach’s Alpha of PA and NA were 0.78 and 0.80, respectively.

### 2.3. Procedure

The students were informed about the research subject upon entering their classrooms. The information that they can contribute through Google forms was shared with the students who wished to participate in the study. All of the participants for the study were volunteers.

### 2.4. Data analysis

Multiple regression—a part of SPSS 20 program—was used to analyse the data. First, regression assumptions including kurtosis, skewness and normality tests were conducted. Afterwards, the Pearson Correlation Coefficient was calculated. Finally, SWB was taken as an independent variable of the study; and BPNS and MIL, which can have potential predictors, were taken as dependent variables.

## 3. Results

Table 1 shows the means, the standard deviations and the bivariate correlations among all variables. Satisfaction scores on each of the three psychological needs were positively correlated with one another, and each of the three needs was linked positively to MIL and SWB. MIL and SWB were also positively correlated to each other.

**Table 1. Means, standard deviations and bivariate correlations among the all variables**

	Mean	SD	1	2	3	4	5
1. Autonomy	30.1	4.7	1				
2. Competence	18.6	3.6	0.79**	1			
3. Relatedness	40.0	6.0	0.59**	0.56**	1		
4. MIL	27.1	5.5	0.29**	0.29**	0.29**	1	
5. SWB	37.6	15.0	0.65**	0.65**	0.60**	0.46**	1

\*\* $p < 0.01$ ;  $N = 325$

Multiple regression analysis was used to determine the variables that explain SWB. According to this, autonomy ( $\beta = 0.19$ ;  $p < 0.05$ ), competence ( $\beta = 0.28$ ;  $p < 0.001$ ), relatedness ( $\beta = 0.27$ ;  $p < 0.001$ )

and MIL ( $\beta = 0.21$ ;  $p < 0.001$ ) predict SWB significantly ( $F_{(4, 320)} = 100.67$ ;  $p < 0.001$ ). These three variables explain 56% of variance. Analysis results were presented in Table 2.

**Table 2. Multiple regression analyses of basic psychological needs and MIL on SWB**

	<i>B</i>	Std. error	Beta	<i>t</i>	<i>p</i>
Autonomy	0.61	0.20	0.19	2.92	0.004
Competence	1.14	0.25	0.28	4.46	0.000
Relatedness	0.67	0.11	0.27	5.68	0.000
MIL	0.58	0.11	0.21	5.22	0.000

Multiple regression analysis was conducted in both female and male groups to determine whether these two groups have similar results. It was observed that for females MIL ( $\beta = 0.11$ ;  $p = 0.09$ ) does not predict SWB; but the three needs are predictors ( $F_{(4, 131)} = 48.7$ ;  $p < 0.001$ ). After removing MIL, the analysis was repeated. The analysis results were presented in Table 3 ( $F_{(3, 132)} = 63.1$ ;  $p < 0.001$ ). When examining the t-values for females, SWB is explained by relatedness, autonomy and competence, respectively. Fulfilment of these three needs explains 59% of SWB.

**Table 3. Multiple regression analyses of basic psychological needs on SWB for females**

	<i>B</i>	Std. error	Beta	<i>t</i>	<i>p</i>
Autonomy	1.16	0.30	0.38	3.885	0.000
Competence	0.83	0.40	0.20	2.095	0.038
Relatedness	0.73	0.17	0.30	4.435	0.000

For males, same analysis was conducted by using SWB as a dependent variable. In males, it was found that autonomy does not predict SWB ( $\beta = 0.15$ ;  $p = 0.08$ ) when relatedness, competence and MIL predict it ( $F_{(4, 184)} = 56.67$ ;  $p < 0.001$ ). Regression analysis was used with predictive variables taken as an independent variable (see Table 4). According to Table 4, the explaining variables of SWB for males are competence, MIL and relatedness, respectively ( $F_{(3, 185)} = 73.6$ ;  $p < 0.001$ ). These three variables clarify 54% of total variance.

**Table 4. Multiple regression analyses of basic psychological needs and MIL on SWB for males**

	<i>B</i>	Std. error	Beta	<i>t</i>	<i>p</i>
Competence	1.58	0.26	0.38	6.06	0.000
Relatedness	0.76	0.16	0.29	4.88	0.000
MIL	0.73	0.14	0.27	5.11	0.000

#### 4. Discussion

As a result of this study, it was found that, as the first hypothesis argues, both basic psychological needs and MIL explain well-being high school students. Upon examination, the variables that explain SWB were determined to be relatedness, MIL, competence and autonomy. The second hypothesis of the study was also partially confirmed. In females, SWB can be explained through relatedness, autonomy and competence, in that order; however, meaning of life MIL is not one of its descriptive variables. In males, competence, MIL and relatedness, respectively, predict SWB. Additionally, the need for autonomy was found not to be a descriptor of happiness in males.

Research has underlined that having a strong social network is important for happiness. For example, a study found that being in a relationship (relatedness) is an important descriptor of happiness. Relatedness predicts greater feelings of relatedness, and therefore, greater well-being (Reis et al., 2000). One of the important factors ensuring a successful adolescence is the quality of the relationships between the individual and both their parents and their peers (Bayraktar, 2007). In a meta-analysis, the important domains of adolescent well-being were determined to be personality, family relationships and parental support, social support and school connectedness (Cunsolo, 2017). In another study, it was emphasised that having meals with the family may increase the well-being in

adolescents (Eisenberg, Olson, Neumark-Sztainer, Story & Bearinger, 2004). Hence, the results of this study showing that relatedness is an important descriptive factor of adolescent well-being matches the results of studies in the literature. Especially parental control and warmth contribute to adolescent happiness considerably (Kwak, 2003; Smetana & Gaines, 1999). Paternal warmth also supports emotional development in adolescents (Suizzo et al., 2017). It is well known that adolescents have a high level of necessity of forming close relationships outside their families, with their peers and other adults around them and gaining their support (Oberle, Schonert-Reichl & Zumbo, 2011). At the same time, it has been underlined that relatedness is extremely important for well-being in collectivist cultures (which includes Turkey) (Kagitcibasi, 1997).

In a study conducted with adolescents, it was found that relational and autonomous-relational self-construal explain life satisfaction (Ozdemir, 2012). In another study, the findings put forward that the parenting climate both provides a setting which allows adolescents to develop an autonomous-self and contributes to the healthy development and well-being of adolescents (Kocayoruk, Altintas & Icbay, 2015). The results of a study done with Chinese and Belgian adolescents showed that satisfaction of each of the three needs was found to contribute uniquely to the prediction of well-being' (Chen et al., 2014). The results of the present study determine that a similar situation is true for Turkish adolescents as well. On the other hand, basic needs and MIL were also determined to be predictive. Some theoreticians argue that meeting basic psychological needs and having an MIL during adolescence is important for successful identity development (Steger et al., 2006). A study has underscored that supporting identity commitments in adolescents is important for their sense of meaning (Negru-Subtirica, Pop, Luyckx, Dezutter & Steger, 2016).

Another result of the study is that, while it is MIL that is not predictive of well-being for females, it is autonomy that is not a predictive factor of well-being for males. This result for females might be complementary to Deci and Ryan's (2000) argument that meaning is formed because of BPNS. However, a similar pattern is not valid for males. Relatedness and autonomy being important descriptors for females could be explained in a cultural context with Kagitcibasi's (1997) study on related autonomy. For males, autonomy is not a strong predictor. In a study with adolescents, Morsunbul (2013) found that self-construals (autonomous, relational and autonomous-relational) do not explain life satisfaction. Research results belonging to Vansteenkiste, Ryan and Deci (2008) show similar findings. Some studies (Noom, Dekovic & Meeus, 2001) show that male adolescents feel more autonomous than females, therefore the male adolescents might not feel support to meet any such needs in order to be happy. Indeed, there are studies that show that perceived autonomy and behavioural autonomy have important differences between them (e.g., Musaagaoglu & Gure, 2005). Oishi, Diener, Lucas and Suh (1999) have determined that the level at which freedom predicts life satisfaction is higher in individualist cultures than in collectivist cultures. Ozdemir (2011) mentions the existence of the view that male autonomy is supported more in Turkey. It may be illuminating on the subject of why different aspects of autonomy do not explain well-being in males, which was not included in the present study.

## 5. Conclusion

To conclude, the results of the present study show that, in high school students, both the basic psychological needs and having MIL is important for their well-being. Consequently, in addition to having a school and a family that supports basic psychological needs during their adolescence, it is also significantly important that the high school students determine a purpose in life. Accounting for the fact that students spend a significant portion of their time at school, the positive conclusions of the basic psychological needs of students being met by the school has been emphasised in the literature (Ozdemir, Tuncer, Yavuz & Ozdemir, 2015). Considering that the basic psychological needs of students being met can increase submissive acts (Hamurcu & Sargin, 2011), the guidance services at schools conducting studies centred around these needs can function as an important buffer for the mental health of students. In this context, it is thought that a positive school climate where the

administration, teachers and school psychological counsellors cooperate and satisfy basic psychological needs contributes to the well-being of students. More detailed information with regard to basic psychological needs in on-the-job training to be provided to teachers because basic psychological needs being met in the classroom environment increases the levels of self-esteem (Wiest, Wong & Kreil, 1998) and SWB (Tian, Liu, Huang & Huebner, 2013) of students. On the other hand, it is known that basic psychological needs being satisfied in high school students carry vital importance for SWB (Eryilmaz, 2012). In this context, this study presents a different perspective with regard to the aforementioned model varying based on gender in addition to the mediating role of the life purpose between the satisfaction of basic psychological needs and SWB (Eryilmaz, 2011) in the literature.

The most important limitation of this study is having not examined the subject from a perspective of time because positive and negative affect are dependent on time. It might have been better to examine adolescence in different periods. Another limitation is that only data belonging to high school students was collected; no peer data was collected. Self-esteem's effects on happiness could have been examined as well.

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