

# Research Article

# Psychological Antecedents of Life Satisfaction

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## **Abstract**

Life satisfaction is exceptionally important for people, so that in-depth research of psychological antecedents that can be associated with this psychological phenomenon is needed. In particular, those psychological characteristics that can be improved and developed need priority attention. The aim of this study was to determine the extent to which psychological well-being, hardiness, sense of coherence, and self-efficacy can be associated with life satisfaction. The study included 207 participants (29 men and 178 women) aged from 18 to 68 years (M = 34.1, SD = 11.8). Results of correlation and multiple regression analyses showed that the most important antecedent of life satisfaction was self-acceptance. This indicator of psychological well-being had the strongest correlations with both indicators of life satisfaction used in the study - satisfaction with life and subjective happiness, and also entered the first place in both highly informative prognostic models built for these indicators. Also, three more indicators were included in these prognostic models: one more indicator of psychological well-being - autonomy, one indicator of hardiness - control, and self-efficacy. In addition to them, environmental mastery, purpose in life, commitment and challenge acceptance also had expressed associations with life satisfaction. Our findings deepened current understanding regarding influence of psychological antecedents on a person's life satisfaction. They can be used to help a person achieve life satisfaction through development of appropriate psychological characteristics.

Keywords: Life satisfaction; psychological well-being; hardiness; sense of coherence; self-efficacy.



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Life satisfaction is considered as a psychological phenomenon, referring to an individual's overall evaluation of their own life based on their own criteria and standards (Datu et al., 2018; Li et al., 2021). It is a subjective measure that reflects an individual's cognitive judgment of their life as a whole, encompassing various domains such as work, social relationships, health, emotional experiences, achievements and personal fulfilment (Erdamar & Demirel, 2016; Fastame, 2021). Life satisfaction is often considered a key component of subjective well-being and is closely related to happiness and quality of life (Badri et al., 2022; Hall, 2014; Maddux, 2018; Ruggeri et al., 2020). Also, the importance of life satisfaction is determined by its close connection with mental and physical health and with human longevity (Antaramian, 2017; Kim et al., 2021; Kokun et al., 2021). Also overall satisfaction can be defined in general terms, but it must be understood the best in the context of one's culture (Malvaso & Kang, 2022).

It is known that life satisfaction is influenced by various factors across different age groups and life circumstances. Research suggested that age, education, self-rated health, exercise, participation in religious activities and social associations, and satisfaction with cultural facilities (Hyun & Dahye, 2018) were significant determinants of life satisfaction, as well as career satisfaction (Hagmaier et al., 2018), social support (Baranauskiene et al., 2019; Do & Hong, 2021; Kasprzak, 2010) and income (Chatfield, 1977; Fernández-Ballesteros et al., 2001; Hyun & Dahye, 2018).



Psychological factors of life satisfaction have been studied to a comparatively lesser extent. Most often, emotional intelligence was determined as a significant predictor of life satisfaction. In particular, it was shown in studies organised with Spain university teachers (Augusto Landa et al., 2006), Spain high school students (Sánchez-Alvarez et al., 2015), undergraduates in Nigeria (Afolabi & Balogun, 2017) and Iranian elderly people (Mostafaei & Ghaderi, 2019). There were also reports of positive associations of life satisfaction with psychological flexibility (in Australian adults; Lucas & Moore, 2020), problem-focused coping and positive self-esteem (in homeless Canadian youths; Gauvin et al., 2021) and self-efficacy in undergraduates in Nigeria (Afolabi & Balogun, 2017) and Iranian elderly people (Mostafaei & Ghaderi, 2019). Analysis performed by Steel et al. (2008) showed that the Big Five could explained up to 18% of total variances in life satisfaction.

In this regard, more in-depth studies of psychological antecedents of life satisfaction are necessary. In particular, in our opinion, those psychological characteristics that can be improved and developed need special attention. These psychological antecedents include components of such complex psychological phenomenas as psychological well-being, hardiness and sense of coherence, as well as self-efficacy.

Psychological well-being is considered a crucial aspect of individuals' overall health and functioning (Khodabakhsh et al., 2014; Tang et al., 2019). It is the combination of feeling good and functioning effectively (Huppert, 2009; Serdiuk, 2022), and encompasses the ability to cope with stress, experience enjoyment in life, maintain connections with others, and fulfil one's potential (Edwards et al., 2021).

Hardiness is a multidimensional personality trait that determines the ability to turn difficult situations into growth opportunities and remain healthy when faced with high stress (Bartone et al., 2012; Kobasa, 1979). This trait consists of three components, including commitment, control and challenge acceptance. Commitment is the tendency to feel deeply involved in life or occupational experiences (Bartone et al., 2012). Control is the belief that people can influence life/occupational situations and that they can influence the direction and outcome of what is going on around them through their own efforts (Khoshaba & Maddi, 1999). Challenge acceptance is the tendency to characterize changes as opportunities to learn and grow (Lo Bue, 2015).

Sense of coherence (SOC) is a concept developed by Antonovsky (1979), which refers to a



person's ability to perceive the world as comprehensible, manageable and meaningful, and to feel confident that resources are available to cope with life's challenges. Accordingly, SOC includes three components: comprehensibility, manageability and meaningfulness. Comprehensibility is the cognitive component and refers to the degree to which people sense that information that concerns themselves, the social environment and the context is not only understandable but also ordered, structured and consistent (Moksnes, 2021). The sense of manageability ("instrumental" component) is the extent to which people perceive that they have sufficient available internal and external resources to satisfy their needs (Galletta et al., 2019). Meaningfulness is the motivational component represents the extent to which people feel that certain areas of life are worthy of time, effort, personal involvement and commitment

Self-efficacy refers to an individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments (Bandura, 1977). It is the personal capability to solve problems and carry out actions required to manage life situations (Slone et al., 2013). It is not enough for people to possess the requisite knowledge and skills to perform a task. People also must have the conviction that they can successfully perform the required behaviours under typical and, importantly, under challenging circumstances (Artino, 2012).

Therefore, the present cross-sectional study aims to determine the extent to which psychological well-being, hardiness, sense of coherence and self-efficacy can be associated with life satisfaction.

# **Method**

## **Participants and Procedure**

Data of 207 participants were collected by convenience sampling method. The inclusion criteria for the sample were being Ukrainian at the age of 18 and older. The sample included 29 men (14%) and 178 women (86%), aged from 18 to 68 years (M = 34.1, SD = 11.8). 91 (46.9%) of the participants were married, 89 (43.0%) were single, and 21 (10.1%) were divorced. The research data were collected from May to November 2021. All questionnaires were completed individually with paper and pencil.

#### **Ethical Statement**

All study procedures complied with the ethical standards of relevant national and institutional



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guidelines on human experimentation and with the Helsinki Declaration of 1975, revised in 2008. All participants gave informed consent to participate and were informed that their participation was voluntary and that they could refuse to participate or withdraw from the study at any time. Complete confidentiality was assured, and only anonymized data were used in statistical analysis. The study was approved by the ethics committee of the G.S. Kostiuk Institute of Psychology of the National Academy of Educational Sciences of Ukraine.

#### Measures

Life satisfaction - To assess life satisfaction, we used Ukrainian adaptations of two measures. The first was the Satisfaction with Life Scale (SWLS; Diener et al., 1985), a 5-item measure designed to measure global cognitive judgments of one's life satisfaction. Participants indicated how much they agreed or disagreed with each of the five items using seven-point Likert scale (7 = strongly agree to 1 = strongly disagree). Total scores ranged from 7 to 35. All items in the scale were positively worded. Cronbach's alpha value for the SWLS in the present sample was .89 (n = 5).

The second measure was the *Subjective Happiness Scale* (SHS; Lyubomirsky & Lepper, 1999). The SHS is 4-item measure of global subjective happiness. Participants rated four statements on a seven-point Likert scale (from 1 to 7). Total scores ranged from 7 to 28. Three items in the scale were positively worded, and one was negatively worded. Cronbach's alpha value for the SHS was .87 (n = 4).

#### Psychological antecedents

To evaluate psychological characteristics that can be associated with life satisfaction we used Ukrainian adaptations of four measures. The first was the 84-Item Version of *Ryff's Psychological Well-Being Scales* (PWB; Ryff, 1989). The scale is based on six factors: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. Respondents responded to various positively and negatively worded statements and indicated on a six-point Likert scale how true each statement was for them  $(1 = strongly \ agree; 6 = strongly \ disagree)$ . Higher scores on each on scale indicated greater well-being on that dimension. Cronbach's alpha values for different scales were within .84.–.92 (n = 14).



The second measure was the *Personal Views Survey II* (PVS II; Maddi, 1997), a questionnaire measuring the hardiness of one's beliefs about the interaction between self and worlds. The instrument consists of 45 positive and negative statements (18 statements for commitment, 17 statements for control and 10 statements for challenge acceptance). Each statement rated using a four-point Likert scale (0 = no to 3 = yes). Cronbach's alpha values for commitment was .85 (n = 18), for control – .88 (n = 17), and for challenge acceptance – .79 (n = 10).

The third measure was the *29-Item Version of Antonovsky's Sense of Coherence Scale* (SOC-29; Antonovsky, 1987). The scale consists of 29 items (11 items measure comprehensibility, 10 items do manageability, and 8 items do meaningfulness). Thirteen of the items were negatively formulated. The response alternatives were a semantic scale of 1 point to 7 points. The total score ranged from 29 to 203, and a higher score indicated higher SOC level. Cronbach's alpha values for comprehensibility was .83 (n = 11), for manageability was .86 (n = 10), for meaningfulness was .78 (n = 8), and for total score was .87 (n = 29).

The fourth measure was the *General Self-Efficacy Scale* (GSE; Schwarzer & Jerusalem, 1995), evaluating individuals' perceptions of their competence in effectively managing various stressful situations. The instrument consists of ten statements rated using a five-point Likert scale  $(1 = completely \ wrong \ to \ 4 = completely \ correct)$ . Total scores ranged from 10 to 40. Cronbach's alpha value for the GSE was .91 (n = 10).

## Statistical analysis

We used the Statistical Package for the Social Sciences version 22.0.0.0 for statistical analysis. Data were analyzed using descriptive statistics (mean, median, standard deviation, range, and Shapiro–Wilk test of normality), the Mann–Whitney U test, Spearman's correlation coefficient, multiple linear regression analysis (stepwise method) and Cronbach's alpha.

# Results

The descriptive statistics for all variables examined in this study are presented in Table 1. Shapiro–Wilk test showed that scores of only five of sixteen variables had a normal distribution. Accordingly, Spearman's rank correlation coefficients were used for the correlation analysis. Also, since, according to the Mann–Whitney U test, no significant gender differences were determined between all indicators, data without differentiation by gender were used in further analysis.

**Table 1.**Descriptive Statistics for All Variables

Variables	М	Me	SD	Range	Shapiro–Wilk test		
variables	177	1010	OD	rango	W	p	
Satisfaction with life	23.17	24	6.32	7–36	.956	< .001	
Subjective happiness	19.75	20	4.38	5–28	.963	< .001	
Autonomy	58.17	59	9.58	32–79	.985	.024	
Environmental mastery	59.72	60	8.74	34–79	.987	.060	
Personal growth	66.06	67	8.15	42–84	.977	.002	
Positive relations with others	60.09	61	9.43	32–84	.991	.237	
Purpose in life	64.51	65	8.49	38–84	.976	.002	
Self-acceptance	59.45	61	10.27	26–79	.974	.001	
Commitment	35.13	36	9.07	9–54	.981	.006	
Control	28.13	28	6.28	10–42	.991	.237	
Challenge acceptance	17.38	18	4.82	5–30	.990	.194	
Comprehensibility	48.34	49	8.10	30–73	.993	.446	
Manageability	34.87	34	7.85	18–56	.986	.040	
Meaningfulness	34.24	33	6.26	17–54	.954	< .001	
Overall SOC score	117.46	113	17.19	75–175	.946	< .001	
Self-efficacy	30.81	31	4.42	13–40	.981	.007	

To meet our research aim, on the first stage of our analysis, correlations between life satisfaction indicators and indicators of psychological well-being, hardiness, sense of coherence and self-efficacy were assessed (Table 2). The obtained results indicated that satisfaction with life and subjective happiness had reliable positive correlations with the vast majority of these indicators. In general, it should be noted that these correlations were somewhat stronger for satisfaction with life than those for subjective happiness.

The strongest correlation existed between satisfaction with life and such indicator of psychological well-being as self-acceptance (r(205) = .66, p < .001). Self-acceptance correlated most strongly with the second indicator of life satisfaction – subjective happiness (r(205) = .50, p < .001). Also, satisfaction with life and subjective happiness had positive moderate correlations with three more indicators of psychological well-being – environmental mastery, purpose in life and positive relations with others (r(205) = .31 - .57, p < .001; except for the correlation with subjective happiness), with all three indicators of hardiness – commitment, control and challenge acceptance (r(205) = .39 - .50, p < .001), as well as with self-efficacy (r(205) = .35 - .50)

.38, p < .001). Two more indicators of psychological well-being – autonomy and personal growth correlated with indicators of life satisfaction in the range of r(205) = .24 - .29 (p < .001). Satisfaction with life and subjective happiness had reliable correlations with only one indicator of sense of coherence – comprehensibility (r(205) = .26 - .36; p < .001).

On the second stage of the analysis, to further explore these patterns of association we built prognostic models for both indicators of life satisfaction using multiple regression analysis (Table 3). Both prognostic models turned out to be highly informative. The most informative was the model with satisfaction with life (R = .71; F(3, 202) = 66.2, p < .001;  $R^2 = .55$ ).

**Table 2.**Bivariate Correlations among the Study Variables (df = 205)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Satisfaction with life	_														
2. Subjective happiness	0.47***	_													
3. Autonomy	0.25***	0.24***	_												
4. Environmental mastery	0.57***	0.42***	0.51***	_											
5. Personal growth	0.27***	0.29***	0.46***	0.43***	_										
6. Positive relations with others	0.33***	0.18**	0.34***	0.43***	0.27***	_									
7. Purpose in life	0.45***	0.31***	0.45***	0.67***	0.58***	0.41***	_								
8. Self-acceptance	0.66***	0.50***	0.52***	0.76***	0.46***	0.43***	0.65***	_							
9. Commitment	0.49***	0.37***	0.51***	0.71***	0.35***	0.52***	0.58***	0.67***	_						
10. Control	0.45***	0.39***	0.49***	0.60***	0.25***	0.31***	0.45***	0.57***	0.75***	_					
11. Challenge acceptance	0.50***	0.41***	0.47***	0.58***	0.36***	0.42***	0.45***	0.67***	0.70***	0.64***	_				
12. Comprehensibility	0.36***	0.26***	0.21**	0.31***	0.15*	0.17*	0.25***	0.39***	0.37***	0.27***	0.32***	_			
13. Manageability	-0.09	-0.05	-0.05	-0.08	-0.12	-0.10	-0.05	-0.06	-0.08	-0.11	-0.09	0.16*	_		
14. Meaningfulness	0.04	-0.03	0.00	0.06	-0.08	0.04	-0.01	0.07	0.09	0.08	0.02	0.37***	0.57***	_	
15. Overall SOC score	0.15	0.10	0.09	0.15*	0.00	0.06	0.11	0.19**	0.19**	0.12	0.13	0.70***	0.72***	0.77***	_
16. Self-efficacy	0.35***	0.38***	0.54***	0.47***	0.38***	0.27***	0.42***	0.47***	0.53***	0.52***	0.41***	0.18**	-0.13	-0.05	0.01

<sup>\*</sup>p < .05, \*\* p < .01, \*\*\* p < .001

**Table 3.** *Multiple Regression Analysis of the Influence of Psychological Antecedents to Life Satisfaction* 

				F,	df,				
Dependent Variables	Predictors and <i>excluded variable</i> s	R	$R^2$	between/within group variance, <i>p</i>	regression residual total	В	Beta	t	р
	(Constant)			66.2	3	1.31		0.60	.547
Satisfaction with life	Self-acceptance	.71	.50	1351/20.4	202	0.42	0.68	10.23	< .001
Satisfaction with me	Autonomy	.,, 1		< .001	205	0.15	0.23	3.70	< .001
	Control					0.20	0.20	3.09	.002
	Environmental mastery						0.14	1.67	.096
	Personal growth						-0.02	-0.40	.690
	Positive relations with others						0.07	1.21	.227
	Purpose in life						0.03	0.49	.625
	Commitment						0.10	1.20	.232
	Challenge acceptance						0.02	0.22	.826
	Comprehensibility						0.11	1.93	.055
	Manageability						-0.03	-0.67	.507
	Meaningfulness						0.01	0.20	.840
	Overall SOC score						0.03	0.61	.544
	Self-efficacy						0.05	0.76	.450
	(Constant)			46.9	2	2.77		1.41	.161
Subjective happiness	Self-acceptance	.56	.32	624.2/13.3	203	0.21	0.48	7.44	< .001
	Self-efficacy			< .001	205	0.15	0.15	2.40	.017
	Autonomy						-0.13	-1.69	.092
	Environmental mastery						0.07	0.81	.420
	Personal growth						-0.03	-0.48	.634
	Positive relations with others						-0.08	-1.20	.230
	Purpose in life						-0.09	-1.12	.264
	Commitment						0.03	0.37	.713
	Control						0.12	1.65	.101
	Challenge acceptance						0.12	1.52	.129
	Comprehensibility						0.08	1.25	.214
	Manageability						-0.01	-0.13	.896
	Meaningfulness						-0.01	-0.12	.901
	Overall SOC score						0.03	0.44	.659



It included self-acceptance, as the strongest antecedent of satisfaction with life ( $\beta$  = 0.68; p < .001), and autonomy ( $\beta$  = 0.23; p < .001) and control ( $\beta$  = 0.20; p = .002). Also, the model with subjective happiness was quite informative (R = .56; F(2, 203) = 46.9, p < .001;  $R^2$  = .32), despite the fact that only two indicators were included in it. As in the first model, the strongest antecedent of subjective happiness turned out to be self-acceptance ( $\beta$  = 0.48; p < .001). The second antecedent was self-efficacy ( $\beta$  = 0.15; p = .017).

# **Discussion**

In accordance with the research goal, this study determined to what extent such psychological antecedents as psychological well-being, hardiness, sense of coherence and self-efficacy were associated with life satisfaction. We should note that, in general, indicators of all four methods used in the study aimed at diagnosing the above psychological characteristics had reliable positive correlations with two indicators of life satisfaction - satisfaction with life and subjective happiness. Results of correlation and multiple regression analyses showed that the most important antecedent of life satisfaction was self-acceptance. This indicator of psychological well-being had the strongest correlations with both indicators of life satisfaction used in the study – satisfaction with life and subjective happiness, and also entered the first place in both highly informative prognostic models built for these indicators.

Also, three more indicators were included in these prognostic models: one more indicator of psychological well-being - autonomy, one indicator of hardiness - control, and self-efficacy. Additionally, we should note that there were sufficiently strong correlations between indicators of life satisfaction and environmental mastery, purpose in life, commitment, and challenge acceptance. Compared to the indicators of the other three methods, correlation of life satisfaction with sense of coherence was significantly weaker - only one of its indicators (comprehensibility) correlated reliably with satisfaction with life and subjective happiness.

Therefore, according to the obtained results, life satisfaction of the studied sample was to the greatest extent associated with such a component of psychological well-being as self-acceptance. This can be considered quite logical, because self-acceptance is reflected in embracing oneself fully, including all aspects of one's identity, abilities and experiences, without judgment or conditions (Hikmawati et al., 2023; Ryff, 1989). It involves recognizing and acknowledging one's strengths, weaknesses, emotions and imperfections with compassion and kindness.

Such a leading value of self-acceptance in a person's achievement of life satisfaction, as evidenced by the obtained results, was quite harmoniously balanced by three indicators with a pronounced volitional component. The first one was autonomy (the capability to resist social pressures, to make decisions or govern actions according to own criteria, and to evaluate self by personal standards; De-Juanas et al., 2020). The second one was control (the capability to influence various situations and transforming adverse of them into advantageous ones; Lo Bue, 2015). And the third one was self-efficacy (individual's belief in own capacity to execute behaviours necessary to produce specific performance attainments and personal capability to solve problems and carry out actions required to manage life situations; Bandura, 1977; Erturan et al., 2020).

In other words, complete self-acceptance is not enough for a person to achieve life satisfaction. Self-acceptance should also be reinforced to a large extent by developed practical abilities and skills necessary for effective life activities, such as the abilities to be autonomous/independent, to control one's own life and to interact effectively with the world around. Therefore, it is quite natural that the indicators of environmental mastery, purpose in life, commitment and challenge acceptance were also associated with life satisfaction and were also important in practical terms for the effective life of a person.

## **Practical Implications**

The results obtained in the study open, in our opinion, quite wide prospects for their practical application in the context of helping people achieve life satisfaction through the development of relevant psychological characteristics. The prospects of such an approach are based on numerous developments in this direction. In particular, it was reported about the possibility of effective application on different samples of training aimed at the development of self-acceptance (Crisan et al., 2023; Jung et al., 2023; Zatzick & Johnson, 1997), autonomy (Butta et al., 2020; Ricci et al., 2024), hardiness (Bartone et al., 2022; Hystad et al., 2015) and self-efficacy (Kohno et al., 2010; Li et al., 2022; Richards et al., 2009). Similar trainings can be used separately, but also it is quite possible to create an integral training aimed at the development of self-acceptance, autonomy, hardiness and self-efficacy at the same time. We believe that the effectiveness of such trainings, according to Angelova (2021, 2023), can be increased by using biofeedback and neurofeedback methods, as well as virtual reality technology.

#### **Limitations and Future Directions**



Interpretation of our results should be considered alongside some limiting factors. The study's cross-sectional design does not allow us to determine, to a sufficient extent, predictive effects of psychological characteristics on life satisfaction. The sample was limited to Ukrainians selected by convenience sampling method. The insufficient representation of men in the sample did not allow checking the presence of possible gender differences in the identified associations. It is also important that the study was conducted before the beginning of the Russian-Ukrainian war in February 24, 2022. And it is quite reasonable to assume that due to the numerous adversities caused by this war to Ukrainians, the level, content and factors of their life satisfaction could undergo significant changes. This, in particular, is due to the rapid deterioration of the psychological health in the population (Lunov et al., 2023), which, for example, was manifested in a significantly increased level of PTSD symptoms and physical complaints in both military personnel (Zasiekina et al., 2022) and civilians (Kokun, 2023; Kokun & Bezverkhyi, 2024).

Despite these limitations, the present study's findings expand the current understanding of the psychological antecedents determining a person's life satisfaction and indicate directions for further research on this topic. In further research, it is important to expand the list of psychological antecedents that can determine life satisfaction, to study the possible gender differences, as well as to develop and test complex trainings aimed at enhancing life satisfaction through increasing self-acceptance, hardiness, self-efficacy, skills autonomy etc.

#### Conclusion

This study results suggest that the most important antecedent of life satisfaction is self-acceptance. Prognostic models with life satisfaction also include autonomy, control, and self-efficacy. In addition to them, environmental mastery, purpose in life, commitment and challenge acceptance also have expressed associations with life satisfaction. Our findings deepen current understanding regarding influence of psychological antecedents on a person's life satisfaction. They can be used to help a person achieve life satisfaction through the development of appropriate psychological characteristics.

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## **Competing Interests**

The authors have declared that no competing interests exist.



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