Emotional Well-being and Suicidal Ideation in Kosovo Youth: Mediating Roles of Hope, Coping, Social Support and Moderating Role of Self-Esteem

Naim Fanaj, Alma Mater Europae Campus College Rezonanca, Kosovo
Sevim Mustafa, PMSH, Kosovo
Elona Krasniqi, UBT Higher Education Institution, Kosovo

The Asian Conference on Psychology & the Behavioral Sciences 2026
Official Conference Proceedings

Abstract

Suicidal ideation is connected to emotional well-being in a complex way. This connection involves multiple factors, including psychosocial influences that act as mediators and moderators. This cross-sectional study explored this relationship in young people in Kosovo, looking at the mediating role of hope, social support and coping and the moderating roles of self-esteem. 490 youth aged 15–23 years (M_{age} = 19.06; SD = 4.17) completed online questionnaires. 26.7% of participants reported suicidal ideation and 26.9% had poor wellbeing. Emotional well-being significantly predicted suicidal ideation in three models of mediators. Social support significantly predicted emotional well-being, had a significant negative effect on suicidal ideation and nonsignificant interaction with self-esteem. Emotional well-being significantly predicted Hope, and there was significant prediction of suicidal ideation in interaction with self-esteem. Dysfunctional Coping significantly negatively predicted emotional well-being, had significant positive effect on suicidal ideation and non-significant interaction with self-esteem. Only a moderated mediation through hope suggesting a moderating effect of self-esteem was confirmed. The findings highlight the importance that youth mental health programs should focus on building strong social support networks, regardless of whether they have high self-esteem and should prioritize identifying dysfunctional coping mechanisms and replacing them by training youth with healthier coping strategies. Prevention efforts may be ineffective if they are based solely on promoting positive thinking or increasing general self-esteem, in preventing suicidal behaviors.

Keywords: subjective well-being, suicidal ideation, youth, Kosovo

Introduction

Suicide is a leading cause of death worldwide and perhaps the most puzzling and devastating of all human behaviors; while at same time presents a public health concern, yet the causes of such a complex and multidetermined behavior are not easily revealed (Clement et al., 2020; Curtin, 2019; Millner et al., 2020). Also, suicide and suicide ideation present significant mental health burdens for adolescents (Miron et al., 2019). Subjective well-being (SWB) represents an assessment of cognitive and affective dimensions individuals make about their lives (Diener et al., 2003). Snyder (2002) defined hope as Sthe perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways" (p. 249). Social support is defined as "support from others with psychological and material resources intended to benefit an individual's ability to cope with stress" (Cohen, 2004, p. 676). Lazarus and Folkman (1984) defined coping as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person. The most widely cited academic definition for Self-esteem is "a positive or negative attitude toward the self" (Rosenberg, 1965, p. 31).

Suicide researchers have traditionally been concerned with the identification of risk factors involved in the development and precipitation of suicidal behavior (Chioqueta & Stiles, 2007).

The aim of this research was to explore how suicidal ideation relates to various psychosocial factors such as subjective well-being, social support, coping strategies, hope and self-esteem. These variables have been partially investigated in Kosovo before, making this study the first of its kind in the country. Based on the previously mentioned literature, the research hypotheses were formulated as follows: (H1): emotional well-being is negatively related to suicidal ideation; (H2) well-being influences ideation through coping mechanisms and social support; and (H3) The indirect effect of well-being on suicidal ideation through coping strategies and social support is moderated by the level of self-esteem.

Literature Review

Paula et al. (2020) in a systematic review of 19 studies reported prevalence rates in adolescent suicidal ideation ranging from 3.9% to 49.1%. Based on Nock et al. (2008), there is variability in the international prevalence of suicidal ideation over the lifetime (average around 9.2%), but on the other hand there is strong consistency in the characteristics and risk factors for suicidal behavior. Li et al. (2014) found that the prevalence ranged from 1.24% to 26.00% in 41 studies in college students in China; while Díez-Gómez et al. (2020) showed that the prevalence of active suicidal ideation in studies in adolescents ranged from 20% to 30%.

SWB, in the context of WHO-5 index, is understood as the personal assessment of psychological and emotional well-being. Theoretical models posit that psychological well-being serves as a protective factor against suicidality through multiple pathways (O'Connor & Kirtley, 2018). A study found that youth who report low perceived support (especially from family) show higher suicidal ideation (Cherewick et al., 2024). In a study of Italian adolescents from the SEYLE (Saving and Empowering Young Lives in Europe) project, adolescents with suicidal ideation scored significantly lower on the WHO-5 well-being index, indicating a strong statistical link between diminished well-being and suicidal thoughts (Iosue et al., 2013). Based on Suh et al. (2021) paper; a few previous studies have reported possible associations between lower levels of SWB and suicidality (e.g. Sisask et al., 2008). Ibrahim et al. (2019) found that

SWB predict suicidal ideation in adolescents. Also, recently Fonseca-Pedrero et al. (2022) suggests that suicidal behavior was negatively related to personal well-being.

Many scholars see hope as a mindset that promotes resilience in the face of difficulty (Abramson, 2024). Hopelessness is linked to suicidal thoughts and behaviors in adolescents (Wagner et al., 2000). However, Spirito et al., (1991) did not find a relationship between suicidal behavior and hopelessness. Findings from several studies (Fonseca-Pedrero et al., 2022; Hirsch et al., 2012; Primananda & Keliat, 2019; Shepherd et al., 2022) support hopelessness as a predictor of suicidal intentions and as one of the major risk factors. A meta-analysis by Brezo et al. (2006) emphasizes hopelessness as a significant risk for suicidal ideation. Some studies have shown that hope is negatively related to suicidal ideation and may protect adolescents (Pharris et al., 2023; Range & Penton, 1994; Valle et al., 2006). However, other studies have found no significant association between hope and suicidal ideation among college students (Davidson et al., 2009; George, 2005; Tancred, 2010). Kwok and Gu (2019), analysing a two-wave longitudinal sample of 910 adolescents (mean age 13.68 years) in Hong Kong, showed that adolescents' sense of hope moderated the relationship between depressive symptoms and suicidal ideation.

Lazarus and Folkman (1984) suggested that social support significantly shapes how we perceive and handle stress. Decades of research suggested that social support is an important factor in predicting suicide risk in both young adults and adolescents (Chioqueta & Stiles, 2007; Coppersmith et al., 2019; Scardera et al., 2020). Perception of family and social support has been reported to decrease the risk of suicidal behavior (Harris & Molock, 2000; Primananda & Keliat, 2019), and to serve as strong protective factor against suicide (Banstola et al., 2020; Tancred, 2010; Wasserman, 2021; World Health Organization [WHO], 2014).

In a systematic review that incorporated 66 studies, inadequate coping was identified among internal risk factors for adolescent suicidal behavior (Ati et al., 2021). Furthermore, unhealthy coping methods, emotion-centric coping, and avoidance strategies were linked to a higher likelihood of suicidal behavior (Abdollahi & Carlbring, 2017; Chou et al., 2018; Horwitz et al., 2011; Liang et al., 2020).

High self-esteem (a positive, stable self-concept) has long been viewed as resilience component. Self-esteem is linked to emotional resilience, well-being, and coping capacity (Orth & Robins, 2022; Shang et al., 2021). In a large Spanish adolescent survey, de la Barrera et al. (2022) found that self-esteem act as a protective factor, buffering the relationship between emotional and behavioral problems and suicidal behavior. Brausch and Decker (2014) also found that relationship between depression and suicidal ideation was significantly moderated by self-esteem. Gallagher and Miller (2018) stated that the presence of protective factors, such as self-esteem or problem-solving ability, buffer or protect the high-risk individual against the negative outcomes (Luthar et al., 2000).

Additionally, there has been a comprehensive search conducted on studies related to suicidality specifically within Kosovo. Fanaj and Melonashi (2014) systematic review of suicide studies in Kosovo revealed that the prevalence of suicidal thoughts was 37.6% to 43%. Brisson et al. (2009) reported that 2.1% of adolescents aged 15 to19 years had thoughts of committing suicide at some point in their life. Arënliu (2014) found that the 11.5 % of females compared to 5.9% of males thought about committing suicide and also a similar study on a representative sample of high school students (M_{age} = 17), found that 9.8% of the females and 5.3% of males had thoughts of committing suicide (Arënliu, 2009). Data from the European School Survey Project

on Alcohol and Other Drugs showed that around 7.7% of 4,709 Kosovar adolescents aged 14–16 have experienced suicide ideation (Arënliu, 2014; Haskuka et al., 2018). Recently, data of two cross-sectional online surveys conducted during the 2020, show that 10.1% of participants in March/April and 18.2% in May/June period scored that almost every day thoughts that would be better dead, or of hurting yourself in some way (Fanaj et al., 2021).

Factors such as adolescents' perception of their own well-being and happiness was linked to both suicidal ideation and behavior (Arënliu, 2009). Arënliu (2009) also suggested that coping mechanisms like avoiding concrete support, behavioral disengagement, and self-blame appeared to predict suicidal ideation and behavior. Other studies of adolescents reported significant correlations between hopelessness with suicidal ideation or planning (hellFanaj & Melonashi, 2014). Arënliu (2014) show that self-esteem, reported happiness and wellbeing are in negative relation to reported suicidal ideation and suicide behavior.

In the context of Kosovo, there isn't specific data available on subjective well-being, but mean WHO-5 in the European Quality of Life Survey 2012 for Kosovo was 63.1, ranking 16th among 34 countries (European Foundation for the Improvement of Living and Working Conditions [Eurofound], 2013). Recently, ESPAD 2024 report find well-being was 64, ranking 10th among 37 countries (ESPAD Group, 2025) and Kosovo ranks 16th globally in the 2026 World Happiness Report with an average life evaluation score of 6.910 (Helliwell et al., 2025).

Subjects and Methods

Procedure and Participants

In this study, a total of 490 students aged between 15 and 23 years were included, with an average age of 19.06 years (SD = 4.17). Among this group, 133 of them were males (27.1%), while 357 were females (72.9%). To select these students, a random sampling method was applied in two high schools, as well as in a public university and a private college, from the municipality of Pristina. The questionnaires were administered to the students in their respective classrooms after obtaining the necessary permissions and informed consent.

Measures

The Adult Hope Scale (Snyder et al., 1991) is a psychometric instrument designed to gauge an individual's level of hope. This scale comprises 12 items aimed at evaluating two distinct components: Pathway Thinking and Agency Thinking. For each of these 12 items, respondents are required to provide responses on an 8-point Likert scale, where higher scores signify a higher degree of hope. AHS has previously been used effectively in adolescent/young adult samples (see Pacico et al., 2013; Venning et al., 2009). Cronbach's alphas for the scale items was $\alpha = .91$.

The Brief COPE Scale (Carver, 1997) is a condensed iteration of the COPE scale. It evaluates a range of coping strategies. Subscale scores fall within the 0 to 6 range, with higher scores denoting a more pronounced inclination toward a particular coping style. These subscales are further grouped into three categories: emotion-focused coping, problem-focused coping, and dysfunctional coping, with the scale centering on themes of resilience and coping. Cronbach's alphas for the scale items was $\alpha = .89$.

The Oslo 3-item Social Support Scale (Dalgard, 1996), is a brief and widely used tool for assessing an individual's perception of their social support network. Higher scores on the O3SS often indicate a greater perception of social support, while lower scores may suggest a lack of perceived support or social isolation. The scale contains three items, and the scores are summed to calculate the scale score, which ranges from 3 to 14. Scores of 3–8 indicate "poor support," 9–11 indicate "moderate support," and 12–14 indicate "strong support." Cronbach's alphas for the scale items was $\alpha = .53$.

The WHO-5 Well-Being Index (WHO, 2014). It comprises five simple and straightforward questions that assess an individual's emotional well-being over the past two weeks. The final score on the WHO-5 ranges from 0 to 100, where 0 represents very poor well-being and 100 indicates excellent well-being Higher scores on the WHO-5 indicate better emotional well-being, while lower scores may indicate potential mental health concerns. Cronbach's alphas for the scale items was $\alpha = .89$.

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is utilized to evaluate an individual's overall attitudes towards themselves. The scale consists of 10 items, and respondents rate their agreement on a 4-point scale. The total score is calculated by summing the item scores, resulting in a range of scores from 10 to 40. Higher scores on the scale indicate higher levels of self-esteem. Cronbach's alphas for the scale items was $\alpha = .75$.

Questionnaire PHQ-9 (Kroenke et al., 2001). We used the statement number 9 of questionnaire who asks about suicidal thoughts over the past two weeks. Although the PHQ-9 is a MDD screening tool, its use in universal screening increased identification and treatment initiation for people at risk for suicide. Response to this question was coded in a binary way to detect any suicidal ideas within the last two weeks (presence of suicidal thoughts = response to item 9 ranged from 1 to 3; absence of suicidal thoughts = response to item 9 was 0). Also, there is calculated Positive screen for suicidality, coded Yes (responses 1–3) and No (responses 0).

Ethical Considerations

Approval for this research was obtained from the Ethical Commission of the AAB College Prishtina, Kosovo, no. A6-437/23, dated 19.07.2023. Informed, written consent was obtained from all participants prior to their participation in the study.

Design and Statistical Analysis

The research adopted a cross-sectional correlational design. Data processing and statistical analysis were performed with SPSS software version 27 and Microsoft Excel 2016. Descriptive statistics and bivariate correlations were computed to preliminarily detect the main features and relationships among all study variables. The mediating role of Hope, Social support and Coping types and the moderating effect of Self-esteem (Model 14) were executed via PROCESS Macro for SPSS version (Hayes, 2022) with 95% confidence intervals based on 5,000 bootstrap samples.

Results

Preliminary Analysis

Out of 490 participants, 331 or 67.6% stated that they did not have suicidal thoughts over the past two weeks; 79 or 16.1% had several days; 22 or 4.5% had more than half the days; 30 or 6.1% had nearly every day, while 28 or 5.7% of the participants did not answer this question. Positive screen for suicidality (responses 1–3) is found in 26.7%. Mean for WHO-5 well-being index was 62.4; a score below 13 indicating poor wellbeing is found in 26.9% of participants.

Descriptive Statistics and Correlations

Descriptive statistics and correlations are reported in Table 1. Results indicated that suicidal ideation was positively correlated with dysfunctional coping ($r = .236^{**}$, $p < .00$), as well as negatively with wellbeing ($r = -.419^{**}$, $p < .00$), social support ($r = -.312^{**}$, $p < .00$) and hope ($r = -.161^{**}$, $p < .00$). No significant correlations were found between suicidal ideation self-esteem ($r = -.013$, $p < .78$), emotion focused coping ($r = .025$, $p < .60$) and problem focused coping ($r = -.043$, $p < .35$). In addition, well-being was positively correlated with social support ($r = .370^{**}$, $p < .00$), hope ($r = .230^{**}$, $p < .00$), self-esteem ($r = .138^{**}$, $p < .00$), emotion focused coping ($r = .116^{**}$, $p < .01$) and problem focused coping ($r = .179^{**}$, $p < .00$), while was negatively correlated with dysfunctional coping ($r = -.128^{**}$, $p < .00$).

Table 1

Descriptive Statistics and Correlations

Variables	M	SD	1	2	3	4	5	6	7	8
1.Suicidality (Y)	0.46	0.86	-	-.419**	-.312**	-.161**	0.025	-0.043	.236**	-0.013
2.Well-being (X)	62.44	25.09		-	.370**	.230**	.116*	.179**	-.128**	.138**
3.Social Support (M1)	9.02	2.64			-	.406**	.338**	.406**	0.08	-.344**
4.Hope (M2)	49	14.51				-	.543**	.606**	.335**	-.251**
5.Emotion Focused Coping (M3)	25.05	6.59					-	.768**	.666**	0.003
6.Problem Focused Coping (M4)	16.73	4.62						-	.535**	-.171**
7.Dysfunctional Coping (M5)	26.55	7.42							-	.236**
8.Self-esteem (W)	20.98	4.68								-

Note. ** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Testing for the Mediating and Moderating Effects

As shown in Table 2, 3 and 4, a moderated mediation analysis (Model 14) revealed that emotional well-being significantly predicted social support, $B = .033$, $SE = .004$, $t(458) = 7.56$, $p < .001$. A logistic regression predicting suicidal ideation was significant, $X^2(4) = 110.68$, $p < .001$, Nagelkerke $R^2 = .31$; explaining 31% of the variance. Both emotional well-being ($B = -0.035$, $SE = 0.005$, $Z = -6.71$, $p < .001$) and social support ($B = -0.234$, $SE = 0.052$, $Z = -4.47$, $p < .001$) were associated with lower odds of suicidal ideation. The significant interaction between social support and Self-esteem ($B = -0.028$, $SE = 0.010$, $Z = -2.79$, $p = .005$), indicated that the effect of social support on suicidal ideation varied across levels of Self-esteem: negative association between social support and suicidal ideation became stronger as Self-esteem increased. The direct effect of emotional well-being on suicidal ideation remained significant, indicating partial mediation. Also, there is significant indirect effects of emotional

well-being on suicidal ideation through social support at all levels of Self-esteem; however, the index of moderated mediation was not significant 95% CI (-.0019, .003).

Also, emotional well-being significantly predicted the mediator hope, B = .104, SE = .024, t (455) = 4.29, p < .001. The logistic model predicting suicidal ideation was significant, X^2 (4) = 96.21, p < .001, Nagelkerke R^2 = .27; explaining 27 % of variance. The direct effect of emotional well-being was significant on suicidal ideation (B = −.043, p < .001), whereas hope was not directly associated with suicidal ideation. The significant interaction between Hope and Self-esteem (B = −.006, p = .002), indicated moderation of the path Hope on suicidal ideation; whereas this effect was significant only at high levels of Self-esteem. The index of moderated mediation was significant 95% CI (-.0016, -.0002), supporting conditional indirect effects (Tab. 2,3,4).

In the parallel mediation model (Model 14), emotional well-being significantly predicted problem focused coping (B = .021, SE = .008, p = .007) and dysfunctional coping (B = −.058, SE = .013, p < .001) but not emotional focused coping. In the logistic regression X^2 (8) = 106.10, p < .000, Nagelkerke R^2 = .29; explaining 29% of the variance, only dysfunctional coping was associated with suicidal ideation (B = .071, SE = .024, p = .003). None of the interaction terms with self-esteem were significant, indicating no moderation. There was a significant indirect effect only through dysfunctional coping, whereas indirect effects through emotional focused coping and problem focused coping were non-significant. Non-significant Index of moderated mediation resulted for all mediators (Table 2, 3, 4).

Table 2

Regression Results for Mediator Variables

Outcome (Mediator)	Predictor (X)	B	SE	t/Z	P	LLCI	ULCI	Nagelkerke R^2
Social Support (M1)	Well-being	0.033	0.000	7.55	0.000	0.024	0.041	0.110
Hope (M2)	Well-being	0.104	0.024	4.28	0.000	0.056	0.151	0.038
Emotion Focused Coping (M3)	Well-being	0.012	0.011	1.16	0.240	-0.008	0.034	0.003
Problem Focused Coping (M4)	Well-being	0.021	0.007	2.72	0.006	0.0059	0.0364	0.016
Dysfunctional Coping (M5)	Well-being	-0.058	0.012	-4.67	0.000	-0.082	-0.0338	0.045

Note. N = 460. CI = 95% confidence intervals. Results are based on 5,000 bootstrap samples. *p < .05, **p < .01, *** p < .001.

Table 3

Regression Results for the Outcome Variable

Model	Predictor	B	SE	t/Z	P	LLCI	ULCI	Nagelkerke R^2
Model 1 (M1)	Well-being (X) (direct effect, c′)	-0.0353	0.0053	-6.7143	0.000	-0.0456	-0.025	
	Social Support (M1)	-0.233	0.052	-4.4664	0.000	-0.336	-0.131	0.306
	Self-esteem (W)	-0.0581	0.0367	-1.5844	0.113	-0.13	0.0138	
	M1 x W	-0.0277	0.009	-0.2793	0.005	-.0472	-.0083	
Model 2 (M2)	Well-being (X) (direct effect, c′)	-0.0429	0.0053	-8.0159	0.000	-0.0534	-0.0324	
	Hope (M2)	0.0012	0.01	0.1234	0.901	-0.0183	0.0208	0.272
	Self-esteem (W)	-0.1644	0.0519	-3.1672	0.001	-0.2661	-0.0626	
	M2 x W	-0.0064	0.0021	-3.0347	0.002	-0.0106	-0.0023	
Model 3 (Parallel)	Well-being (X) (direct effect, c′)	-0.039	0.0054	-7.1747	0.000	-0.0496	-0.0283	
	Emotion Focused Coping (M3)	-0.016	0.0319	-0.502	0.615	-0.0785	0.0465	0.297
	Problem Focused Coping (M4)	-0.002	0.0414	-0.0471	0.962	-0.0831	0.0792	
	Dysfunctional Coping (M5)	0.0705	0.024	2.9356	0.003	0.0234	0.1175	
	Self-esteem (W)	-0.0435	0.0364	-1.1945	0.232	-0.1149	0.0279	
	M3 x W	-0.0132	0.0094	-1.4062	0.159	-0.0316	0.0052	
	M4 x W	-0.0103	0.0127	-0.8096	0.418	-0.0353	0.0147	
	M5 x W	0.0083	0.0062	1.3533	0.176	-0.0037	0.0204	

Table 4

Indirect Effects, Index of Moderated Mediation and Confidence Intervals

Mediator	Level of W (Self-Esteem)	Indirect Effect	BootSE	BootLLCI	BootULCI	Significant (CI excludes 0)
Social Support	−1 SD	-0.0054	0.0022	-0.0104	-0.002	Yes
	Mean	-0.0082	0.0024	-0.0135	-0.0043	Yes
	+1 SD	-0.011	0.0034	-0.0183	-0.005	Yes
Hope	−1 SD	0.0018	0.0018	-0.0007	0.0064	No
	Mean	-0.0002	0.0012	-0.0025	0.0025	No
	+1 SD	-0.0022	0.0014	-0.0057	-0.0002	Yes
Emotion Focusing	−1 SD	0.0002	0.0008	-0.0013	0.002	No
	Mean	-0.0003	0.0006	-0.0018	0.0008	No
	+1 SD	-0.0008	0.0011	-0.0034	0.0009	No
Problem Focusing	−1 SD	0.0005	0.0014	-0.0019	0.004	No
	Mean	-0.0001	0.001	-0.0024	0.0018	No
	+1 SD	-0.0008	0.0015	-0.0048	0.0014	No
Dysfunctional Coping	−1 SD	-0.0029	0.0018	-0.0068	0.0002	No
	Mean	-0.0043	0.0018	-0.0082	-0.0014	Yes
	+1 SD	-0.0058	0.0025	-0.0113	-0.0017	Yes

Index of Moderated Mediation

Model	Mediator	Index	BootSE	BootLLCI	BootULCI	Significant (CI excludes 0)
M1	Social Support	-0.0009	0.0005	-0.0019	0.0003	No
M2	Hope	-0.0007	0.0004	-0.0016	-0.0002	Yes
Parallel	Emotion Focusing	-0.0002	0.0002	-0.0007	0.0002	No
	Problem Focusing	-0.0002	0.0004	-0.0012	0.0003	No
	Dysfunctional Coping	-0.0005	0.0004	-0.0014	0.0003	No

Discussion

This is one of the first studies in Kosovo that has been conducted investigating the relationship between suicide ideation and various personal and sociodemographic variables in youth.

In general, the prevalence of suicidal ideation findings indicates that a significant portion (26.7% or approximately 1/3 of respondents) of the participants reported experiencing varying degrees of suicidal thoughts. This rate is higher than the 9.2% reported by Nock et al. (2008), but falls within the range of figures found in other studies, such as 3.9% to 49.1% by Paula et al. (2020); 1.24% to 26% by Li et al. (2014); and 20% to 30% by Díez-Gómez et al. (2020). When compared to studies conducted in Kosovo, this figure is lower than the 43% and 37.6% studies (Fanaj & Melonashi, 2014). However, it is higher than the rates reported in recent studies by Fanaj et al. (2021), which were 10.1% and 18.2%, and notably higher than figures such as 2.1% (Brisson et al., 2009), 7.55% (Arënliu, 2014), 7.7% (Haskuka et al., 2018), and 8.7% (Arënliu, 2009).

The average well-being index score is situated within the moderate range, suggesting that, on average, participants are not experiencing exceptionally high or low levels of subjective well-being. This finding of 62.4 is quite similar to the level 63.1, observed in a study conducted in 2012 (Eurofund, 2013) and lightly lower of 64 as recently reported (ESPAD Group, 2025).

Based on the correlation analysis, we find that young individuals with higher levels of suicidal ideation have lower levels of well-being index, hope and social support but higher levels of dysfunctional coping. These findings may have implications for understanding and addressing factors related to suicidality in this particular population.

Regarding the significant inverse findings of subjective well-being with suicidal ideation, these are in line with research on well-being (Fonseca-Pedrero et al., 2022; Sisask et al., 2008; Suh et al., 2021). Similarly, well-being has emerged as a predictive factor for suicidal ideation, as evidenced by the study by Ibrahim et al. (2019) in Malaysia.

Regarding the significant finding of low hope levels as a significant factor in suicidal ideation, this is consistent with a substantial body of research, such as studies (Chang, 2017; Primananda & Keliat, 2019; Range & Penton, 1994; Shepherd, 2022; Valle et al., 2006; Wagner et al., 2000). However, it is in contrast with a study by Spirito et al. (1991). Interestingly, hope did not emerge as a predictor of suicidal ideation in our findings, which opposes the findings of Brezo et al. (2006) and Hirsch et al. (2012).

As for the significant findings of a high level of social support being inversely associated with a low level of suicidal ideation, we can say that these findings are consistent with studies like those by Banstola et al. (2020), Harris and Molock (2000), Primananda and Keliat (2019), Tancred (2010), Wasserman (2021) and the WHO (2014). Furthermore, social support has been shown to be a predictor of suicidal ideation, as seen in studies by Chioqueta and Stiles (2007), Coppersmith et al. (2019) and Scardera et al. (2020).

Regarding the findings that dysfunctional coping strategies are associated with higher levels of suicidal ideation, it can be said that these findings are consistent with inadequate coping as suggested by studies such as Ati et al. (2021) and Chou et al. (2018). These findings are fully in line with research conducted by Loots (2008) and Meehan et al. (2007). However, these

findings do not align with studies that suggest emotion-centric coping strategies are linked to a higher likelihood of suicidal behavior (Abdollahi & Carlbring, 2017; Kim et al., 2015).

The lack of a moderating effect of self-esteem is not a rare finding in the psychological dynamics of adolescence. This may be due to the fact that self-esteem is still developing (Orth & Robins, 2014), that it is unstable (Kernis, 2005), is contingent (Crocker & Wolfe, 2001) and that it is very reactive to situations, especially social ones (Harter, 2012). Another explanatory factor may be the fact that the Rosenberg Scale used is a measure of global self-esteem, and that in adolescents, suicidal ideation can be related to specific areas such as physical appearance, academic performance, peer acceptance, etc. (Joiner, 2005); therefore, according to Marsh and Craven (2006) global self-esteem is too broad to provide precise information about specific psychological outcomes. Also, according to the literature, the effect of self-esteem on mental health variables is attenuated when other psychological variables are considered (Sowislo & Orth, 2013).

In the classic suicidology literature (especially Beck's theory), the strongest predictor of suicidal ideation is hopelessness. The Hope Scale (Snyder, 2002) measures a positive cognitive construct. The absence of this positive thinking (low hope) is not necessarily the same as hopelessness. As Baumeister et al. (2001) also states based on a broader psychological principle - negative cognitive states exert stronger effects on psychological functioning than positive states (Baumeister et al., 2001). Also, Spirito et al. (1996) shows that while hope serves as a protective factor, hopelessness plays a more direct etiological role in the development of suicidal ideation. But self-esteem shows a priming effect at high levels, enabling well-being to influence suicidal ideation through hope. Based on Hope Theory (Snyder, 2002), only higher self-esteem may enable individuals' internalization of positive functioning as personal agency (fostering hope).

According to the interpersonal theory of suicide (Joiner, 2005), the main driver towards suicidal ideation is thwarted belongingness and it is precisely social support that fulfills this by putting self-esteem in the background. A good social support network protects adolescents from suicidal thoughts regardless of the level of self-esteem of the individual.

Similarly, dysfunctional coping has a much higher and more direct correlation with pathology (suicidal ideation) than the lack of positive strategies. Adolescents with suicidal ideation consistently show higher reliance on maladaptive coping strategies compared to their non-suicidal peers (Gould et al., 2004; Horwitz et al., 2011). This can be explained by the fact that when an adolescent uses dysfunctional coping/behavior, this increases the risk for suicidal ideation, regardless of the level of self-esteem at that moment. Nock et al. (2008) sees maladaptive behaviors as proximal risk factors for suicidal behavior (O'Connor & Nock, 2014).

Conclusions

This study provides valuable insights about the relationship between suicidal ideation and various personal and sociodemographic factors among youth in Kosovo. While approximately 1/3 of participants (about 26.7%) report experiencing suicidal thoughts to varying degrees; same time they also have lower levels of subjective well-being, hope, and social support, while use more dysfunctional coping strategies. Two findings emerged as interesting: first, that hope not resulted with power of predicting suicidal ideation, and second, that self-esteem almost did not show a moderating effect in buffering suicidal ideation.

Our study showed the fact that hope as a positive construct, even when low, does not have the importance of hopelessness as a negative construct; and also, self-esteem with its instability in young people may be less important in influencing the dynamics of suicidal ideation compared to other psychological variables such as social support and dysfunctional coping. There is imposed the imperative that youth mental health programs should focus on building strong social support networks, regardless of whether they have high self-esteem.

At the same time, professionals and educators should prioritize identifying dysfunctional coping mechanisms and replacing them by training youth with healthier coping strategies. Prevention efforts may be ineffective if they are based solely on promoting positive thinking or increasing general self-esteem. However, these conclusions and implications need to gain strength and relevance for mental health policies, through research with longitudinal designs and higher methodological standards.

Limitations

We must acknowledge several limitations in this study. Firstly, our reliance on a cross-sectional design who examines the relationships among the research variables at a single time point, allowing only hypothetical directionality and causality assumption; providing only a snapshot in time and does not capture the fluid and evolving nature of the phenomena under scrutiny.

There we may also list as limitations the use of self-reports, the risk of selection bias and information bias, confounding factors and mediators, and specific pathways of the tested variables. Future research should use a longitudinal design to provide more robust conclusions. Also, our sample may suffer from relatively imbalanced in gender, with 77.4% of participants being female. To enhance the robustness of our findings, future research should confirm the moderated mediation model with a larger and more gender-balanced sample.

Acknowledgements

We thank all the adolescent's that participated in the study.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work the author(s) used ChatGPT and Gemini for grammatical and textual structure support. Additionally, they assisted me in the initial phase of research by facilitating the brainstorming of research question. After using these tools/services, the author(s) reviewed, synthesized, and edited the content as needed and take full responsibility for the content of the publication. All outputs were reviewed and edited to ensure accuracy and originality.

References

Abdollahi, A., & Carlbring, P. (2017). Coping style as a moderator of perfectionism and suicidal ideation among undergraduate students. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *35*(3), 223–239. https://doi.org/10.1007/s10942-016-0252-0

Abramson, A. (2024). Hope as the antidote. *Monitor on Psychology, 55*(1), 88. https://www.apa.org/monitor/2024/01/trends-hope-greater-meaning-life

Arënliu, A. (2009). *Suicide ideation and behavior of Kosovar adolescents: Effect of negative life events, reported wellbeing, happiness, coping mechanisms and self-esteem* [Doctoral dissertation, Ludwig-Maximilians-Universität München].

Arënliu, A. (2014). Suicide ideation and behavior of Kosovar adolescents: Effect of negative life events, reported wellbeing, happiness, coping mechanisms and self-esteem. In *Proceedings of the INTCESS14 International Conference on Education and Social Sciences* (pp. 123–130).

Ati, N. A. L., Paraswati, M. D., & Windarwati, H. D. (2021). What are the risk factors and protective factors of suicidal behavior in adolescents? A systematic review. *Journal of Child and Adolescent Psychiatric Nursing*, *34*(1), 7–18. https://doi.org/10.1111/jcap.12295

Banstola, R. S., Ogino, T., & Inoue, S. (2020). Self-esteem, perceived social support, social capital, and risk-behavior among urban high school adolescents in Nepal. *SSM - Population Health*, *11*, 100570. https://doi.org/10.1016/j.ssmph.2020.100570

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*(4), 323–370. https://doi.org/10.1037/1089-2680.5.4.323

Brausch, A. M., & Decker, K. M. (2014). Self-esteem and social support as moderators of depression, body image, and disordered eating for suicidal ideation in adolescents. *Journal of Abnormal Child Psychology*, *42*(5), 779–789. https://doi.org/10.1007/s10802-013-9822-0

Brezo, J., Paris, J., & Turecki, G. (2006). Personality traits as correlates of suicidal ideation, suicide attempts, and suicide completions: A systematic review. *Acta Psychiatrica Scandinavica*, *113*(3), 180–206. https://doi.org/10.1111/j.1600-0447.2005.00702.x

Brisson, A., Arenliu, A., & Platais, I. (2009). *Psychoactive substance use in Kosovo: Rapid assessment and response with youth, injecting drug users and prisoners*. World Health Organization Regional Office for Europe, UNICEF, & UNFPA. http://www.unicef.org/kosovo/RAR_psychoactive_substance_use_eng_09%281%29.pdf

Carver, C. S. (1997). You want to measure coping but your protocol' too long: Consider the brief cope. *International Journal of Behavioral Medicine*, *4*(1), 92–100. https://doi.org/10.1207/s15327558ijbm0401_6

Chang, E. C. (2017). Hope and hopelessness as predictors of suicide ideation in Hungarian college students. *Death Studies*, *41*(7), 455–460. https://doi.org/10.1080/07481187.2017.1299255

Cherewick, M., Lama, R., Rai, R. P., Dukpa, C., Mukhia, D., Giri, P., & Matergia, M. (2024). Social support and self-efficacy during early adolescence: Dual impact of protective and promotive links to mental health and wellbeing. *PLOS Global Public Health*, *4*(12), e0003904. https://doi.org/10.1371/journal.pgph.0003904

Chioqueta, A. P., & Stiles, T. C. (2007). The relationship between psychological buffers, hopelessness, and suicidal ideation: Identification of protective factors. *Crisis*, *28*(2), 67–73. https://doi.org/10.1027/0227-5910.28.2.67

Chou, W.-P., Yen, C.-F., & Liu, T.-L. (2018). Predicting effects of psychological inflexibility/experiential avoidance and stress coping strategies for internet addiction, significant depression, and suicidality in college students: A prospective study. *International Journal of Environmental Research and Public Health*, *15*(4), 788. https://doi.org/10.3390/ijerph15040788

Clement, D. N., Wingate, L. R., Cole, A. B., O'Keefe, V. M., Hollingsworth, D. W., Davidson, C. L., & Hirsch, J. K. (2020). The common factors of grit, hope, and optimism differentially influence suicide resilience. *International Journal of Environmental Research and Public Health*, *17*(24), 9588. https://doi.org/10.3390/ijerph17249588

Cohen, S. (2004). Social relationships and health. *American Psychologist*, *59*(8), 676–684. https://doi.org/10.1037/0003-066X.59.8.676

Coppersmith, D. D. L., Kleiman, E. M., Glenn, C. R., Millner, A. J., & Nock, M. K. (2019). The dynamics of social support among suicide attempters: A smartphone-based daily diary study. *Behaviour Research and Therapy*, *120*, 103348. https://doi.org/10.1016/j.brat.2018.11.016

Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review*, *108*(3), 593–623. https://doi.org/10.1037/0033-295X.108.3.593

Curtin, S. C. (2019). *Death rates due to suicide and homicide among persons aged 10–24: United States, 2000–2017* (NCHS Data Brief No. 352). Centers for Disease Control and Prevention. https://stacks.cdc.gov/view/cdc/81944

Dalgard, O. S. (1996). Community mental health profile as tool for psychiatric prevention. In D. R. Trent & C. Reed (Eds.), *Promotion of mental health*. Avebury.

Davidson, C. L., Wingate, L. R., Rasmussen, K. A., & Slish, M. L. (2009). Hope as a predictor of interpersonal suicide risk. *Suicide and Life-Threatening Behavior*, *39*(5), 499–507. https://doi.org/10.1521/suli.2009.39.5.499

Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology*, *54*(1), 403–425. https://doi.org/10.1146/annurev.psych.54.101601.145056

Díez-Gómez, A., Pérez-Albéniz, A., Sebastián-Enesco, C., & Fonseca-Pedrero, E. (2020). Suicidal behavior in adolescents: A latent class analysis. *International Journal of Environmental Research and Public Health*, *17*(8), 2820. https://doi.org/10.3390/ijerph17082820

ESPAD Group. (2025). *ESPAD report 2024: Results from the European School Survey Project on Alcohol and Other Drugs.* EUDA Joint Publications; Publications Office of the European Union. https://www.espad.org/sites/default/files/espad-report-2024-TD0125014ENN.pdf

European Foundation for the Improvement of Living and Working Conditions. (2013). *Quality of life in enlargement countries: Third european quality of life survey – introduction*. Eurofound. https://www.eurofound.europa.eu/en/publications/all/quality-life-enlargement-countries-third-european-quality-life-survey

Fanaj, N., & Melonashi, E. (2014). A systematic evidence review on suicide in Kosovo. *Sage Open*, *4*(1), 2158244014528717. https://doi.org/10.1177/2158244014528717

Fanaj, N., Mustafa, S., Ajradini, A., Kabashaj, B., & Poniku, I. (2021). Suicidality measured by PHQ-9 in Kosovo during the COVID-19 outbreak. *European Psychiatry*, *64*(S1), S92–S93. https://doi.org/10.1192/j.eurpsy.2021.272

Fonseca-Pedrero, E., Al-Halabí, S., Pérez-Albéniz, A., & Debbané, M. (2022). Risk and protective factors in adolescent suicidal behaviour: A network analysis. *International Journal of Environmental Research and Public Health*, *19*(3), 1784. https://doi.org/10.3390/ijerph19031784

Gallagher, M. L., & Miller, A. B. (2018). Suicidal thoughts and behavior in children and adolescents: An ecological model of resilience. *Adolescent Research Review*, *3*(2), 123–154. https://doi.org/10.1007/s40894-017-0066-z

George, A. (2005). *The influence of psychosocial factors and resources on suicidal ideation of adolescents* [Doctoral dissertation, University of the Free State].

Gould, M. S., Velting, D., Kleinman, M., Lucas, C., Thomas, J. G., & Chung, M. (2004). Teenagers' attitudes about coping strategies and help-seeking behavior for suicidality. *Journal of the American Academy of Child & Adolescent Psychiatry*, *43*(9), 1124–1133. https://doi.org/10.1097/01.chi.0000132811.06547.31

Harris, T. L., & Molock, S. D. (2000). Cultural orientation, family cohesion, and family support in suicide ideation and depression among African American college students. *Suicide and Life-Threatening Behavior*, *30*(4), 341–353. https://doi.org/10.1111/j.1943-278X.2000.tb01100.x

Harter, S. (2012). *The construction of the self: Developmental and sociocultural foundations* (2nd ed). the Guilford press.

Haskuka, M., Arenliu, A., & Kelmendi, K. (2018). The relationship between substance use and suicidal behaviour among adolescents in selected European countries: A test of normalisation theory. *Drugs: Education, Prevention and Policy*, *25*(5), 413–421. https://doi.org/10.1080/09687637.2017.1308468

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (Third edition). The Guilford Press.

Helliwell, J. F., Layard, R., Sachs, J. D., Neve, J.-E. D., Aknin, L. B., & Wang, S. (2025). *World Happiness Report 2025*. https://worldhappiness.report/ed/2025/

Hirsch, J. K., Visser, P. L., Chang, E. C., & Jeglic, E. L. (2012). Race and ethnic differences in hope and hopelessness as moderators of the association between depressive symptoms and suicidal behavior. *Journal of American College Health*, *60*(2), 115–125. https://doi.org/10.1080/07448481.2011.567402

Horwitz, A. G., Hill, R. M., & King, C. A. (2011). Specific coping behaviors in relation to adolescent depression and suicidal ideation. *Journal of Adolescence*, *34*(5), 1077–1085. https://doi.org/10.1016/j.adolescence.2010.10.004

Hyland, M. E., & Sodergren, S. C. (1996). Development of a new type of global quality of life scale, and comparison of performance and preference for 12 global scales. *Quality of Life Research*, *5*(5), 469–480. https://doi.org/10.1007/BF00540019

Ibrahim, N., Che Din, N., Ahmad, M., Amit, N., Ghazali, S. E., Wahab, S., Abdul Kadir, N. B., Halim, F. W., & A. Halim, M. R. T. (2019). The role of social support and spiritual wellbeing in predicting suicidal ideation among marginalized adolescents in Malaysia. *BMC Public Health*, *19*(S4), 553. https://doi.org/10.1186/s12889-019-6861-7

Iosue, M., Carli, V., D'Aulerio, M., Basilico, F., Recchia, L., Apter, A., Balazs, J., Bobes, J., Brunner, R., Corcoran, P., Cosman, D., Durkee, T., Haring, C., Kahn, J. P., Keeley, H., Marusic, D., Postuvan, V., Resch, F., Saiz, P., … Wasserman, D. (2013). 1857 – peer relationships and adolescents mental health: Finding from the SEYLE project in Italy. *European Psychiatry*, *28*(S1), 28-E1107. https://doi.org/10.1016/S0924-9338(13)76819-6

Joiner, T. E. (2005). *Why people die by suicide*. Harvard University Press.

Kernis, M. H. (2005). Measuring self-esteem in context: The importance of stability of self-esteem in psychological functioning. *Journal of Personality*, *73*(6), 1569–1605. https://doi.org/10.1111/j.1467-6494.2005.00359.x

Kim, S. M., Baek, J. H., Han, D. H., Lee, Y. S., & Yurgelun-Todd, D. A. (2015). Psychosocial–environmental risk factors for suicide attempts in adolescents with suicidal ideation: Findings from a sample of 73,238 adolescents. *Suicide and Life-Threatening Behavior*, *45*(4), 477–487. https://doi.org/10.1111/sltb.12143

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

Kwok, S. Y. C. L., & Gu, M. (2019). Childhood neglect and adolescent suicidal ideation: A moderated mediation model of hope and depression. *Prevention Science, 20*(5), 632–642. https://doi.org/10.1007/s11121-018-0962-x

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.

Li, Z.-Z., Li, Y.-M., Lei, X.-Y., Zhang, D., Liu, L., Tang, S.-Y., & Chen, L. (2014). Prevalence of suicidal ideation in Chinese college students: A meta-analysis. *PLoS ONE*, *9*(10), e104368. https://doi.org/10.1371/journal.pone.0104368

Liang, J., Kõlves, K., Lew, B., De Leo, D., Yuan, L., Abu Talib, M., & Jia, C. (2020). Coping strategies and suicidality: A cross-sectional study from China. *Frontiers in Psychiatry*, *11*, 129. https://doi.org/10.3389/fpsyt.2020.00129

Loots, S. (2008). *The role of exposure to suicide and coping strategies in the suicidal ideation of adolescents* [Unpublished master's thesis, University of the Free State].

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, *71*(3), 543–562. https://doi.org/10.1111/1467-8624.00164

Marsh, H. W., & Craven, R. G. (2006). Reciprocal effects of self-concept and performance from a multidimensional perspective: Beyond seductive pleasure and unidimensional perspectives. *Perspectives on Psychological Science*, *1*(2), 133–163. https://doi.org/10.1111/j.1745-6916.2006.00010.x

Meehan, S.-A., Peirson, A., & Fridjhon, P. (2007). Suicide ideation in adolescent South Africans: The role of gender and coping strategies. *South African Journal of Psychology*, *37*(3), 552–575. https://doi.org/10.1177/008124630703700311

Millner, A. J., Robinaugh, D. J., & Nock, M. K. (2020). Advancing the understanding of suicide: The need for formal theory and rigorous descriptive research. *Trends in Cognitive Sciences*, *24*(9), 704–716. https://doi.org/10.1016/j.tics.2020.06.007

Miron, O., Yu, K.-H., Wilf-Miron, R., & Kohane, I. S. (2019). Suicide rates among adolescents and young adults in the United States, 2000-2017. *JAMA*, *321*(23), 2362. https://doi.org/10.1001/jama.2019.5054

Nock, M. K., Borges, G., Bromet, E. J., Alonso, J., Angermeyer, M., Beautrais, A., Bruffaerts, R., Chiu, W. T., De Girolamo, G., Gluzman, S., De Graaf, R., Gureje, O., Haro, J. M., Huang, Y., Karam, E., Kessler, R. C., Lepine, J. P., Levinson, D., Medina-Mora, M. E., … Williams, D. (2008). Cross-national prevalence and risk factors for suicidal ideation, plans and attempts. *British Journal of Psychiatry*, *192*(2), 98–105. https://doi.org/10.1192/bjp.bp.107.040113

Nock, M. K., Borges, G., Bromet, E. J., Cha, C. B., Kessler, R. C., & Lee, S. (2008). Suicide and suicidal behavior. *Epidemiologic Reviews*, *30*(1), 133–154. https://doi.org/10.1093/epirev/mxn002

O'Connor, R. C., & Kirtley, O. J. (2018). The integrated motivational–volitional model of suicidal behaviour. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *373*(1754), 20170268. https://doi.org/10.1098/rstb.2017.0268

O'Connor, R. C., & Nock, M. K. (2014). The psychology of suicidal behaviour. *The Lancet Psychiatry*, *1*(1), 73–85. https://doi.org/10.1016/S2215-0366(14)70222-6

Orth, U., & Robins, R. W. (2014). The development of self-esteem. *Current Directions in Psychological Science*, *23*(5), 381–387. https://doi.org/10.1177/0963721414547414

Orth, U., & Robins, R. W. (2022). Is high self-esteem beneficial? Revisiting a classic question. *American Psychologist*, *77*(1), 5–17. https://doi.org/10.1037/amp0000922

Pacico, J. C., Bastianello, M. R., Zanon, C., & Hutz, C. S. (2013). Adaptation and validation of the dispositional hope scale for adolescents. *Psicologia: Reflexão e Crítica*, *26*(3), 488–492. https://doi.org/10.1590/S0102-79722013000300008

Paula, W. D., Breguez, G. S., Machado, E. L., & Meireles, A. L. (2020). Prevalence of anxiety, depression, and suicidal ideation symptoms among university students: A systematic review. *Brazilian Journal of Health Review*, *3*(4), 8739–8756. https://doi.org/10.34119/bjhrv3n4-119

Pharris, A. B., Munoz, R. T., Kratz, J., & Hellman, C. M. (2023). Hope as a buffer to suicide attempts among adolescents with depression. *Journal of School Health*, *93*(6), 494–499. https://doi.org/10.1111/josh.13278

Primananda, M., & Keliat, B. A. (2019). Risk and protective factors of suicidal ideation in adolescents. *Comprehensive Child and Adolescent Nursing*, *42*(sup1), 179–188. https://doi.org/10.1080/24694193.2019.1578439

Range, L. M., & Penton, S. R. (1994). Hope, hopelessness, and suicidality in college students. *Psychological Reports*, *75*(1), 456–458. https://doi.org/10.2466/pr0.1994.75.1.456

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton University Press.

Scardera, S., Perret, L. C., Ouellet-Morin, I., Gariépy, G., Juster, R.-P., Boivin, M., Turecki, G., Tremblay, R. E., Côté, S., & Geoffroy, M.-C. (2020). Association of social support during adolescence with depression, anxiety, and suicidal ideation in young adults. *JAMA Network Open*, *3*(12), e2027491. https://doi.org/10.1001/jamanetworkopen.2020.27491

Shang, Y., Xie, H.-D., & Yang, S.-Y. (2021). The relationship between physical exercise and subjective well-being in college students: The mediating effect of body image and self-esteem. *Frontiers in Psychology*, *12*, 658935. https://doi.org/10.3389/fpsyg.2021.658935

Shepherd, D., Taylor, S., Csako, R., Liao, A.-T., & Duncan, R. (2022). Predictors of suicide ideation and attempt planning in a large sample of New Zealand help-seekers. *Frontiers in Psychiatry*, *13*, 794775. https://doi.org/10.3389/fpsyt.2022.794775

Sisask, M., Värnik, A., Kõlves, K., Konstabel, K., & Wasserman, D. (2008). Subjective psychological well-being (WHO-5) in assessment of the severity of suicide attempt. *Nordic Journal of Psychiatry*, *62*(6), 431–435. https://doi.org/10.1080/08039480801959273

Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, *13*(4), 249–275. https://doi.org/10.1207/S15327965PLI1304_01

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., Yoshinobu, L., Gibb, J., Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, *60*(4), 570–585. https://doi.org/10.1037/0022-3514.60.4.570

Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin*, *139*(1), 213–240. https://doi.org/10.1037/a0028931

Spirito, A., Francis, G., Overholser, J., & Frank, N. (1996). Coping, depression, and adolescent suicide attempts. *Journal of Clinical Child Psychology*, *25*(2), 147–155. https://doi.org/10.1207/s15374424jccp2502_3

Spirito, A., Overholser, J., & Hart, K. (1991). Cognitive characteristics of adolescent suicide attempters. *Journal of the American Academy of Child & Adolescent Psychiatry*, *30*(4), 604–608. https://doi.org/10.1097/00004583-199107000-00012

Suh, W. Y., Lee, J., Yun, J.-Y., Sim, J., & Yun, Y. H. (2021). A network analysis of suicidal ideation, depressive symptoms, and subjective well-being in a community population. *Journal of Psychiatric Research*, *142*, 263–271. https://doi.org/10.1016/j.jpsychires.2021.08.008

Tancred, H. M. (2010). *Psychosocial predictors of suicidal ideation in adolescence* [Doctoral dissertation, University of the Free State].

Valle, M. F., Huebner, E. S., & Suldo, S. M. (2006). An analysis of hope as a psychological strength. *Journal of School Psychology*, *44*(5), 393–406. https://doi.org/10.1016/j.jsp.2006.03.005

Venning, A. J., Eliott, J., Kettler, L., & Wilson, A. (2009). Normative data for the Hope Scale using Australian adolescents. *Australian Journal of Psychology*, *61*(2), 100–106. https://doi.org/10.1080/00049530802054360

Wagner, K. D., Rouleau, M., & Joiner, T. (2000). Cognitive factors related to suicidal ideation and resolution in psychiatrically hospitalized children and adolescents. *American Journal of Psychiatry*, *157*(12), 2017–2021. https://doi.org/10.1176/appi.ajp.157.12.2017

Wasserman, D. (Ed.). (2021). *Oxford Textbook of Suicidology and Suicide Prevention* (2nd ed.). Oxford University Press. https://doi.org/10.1093/med/9780198834441.001.0001

World Health Organization. (2014). *Preventing suicide: A global imperative.* https://apps.who.int/iris/handle/10665/131056

World Health Organization Regional Office for Europe. (1998). *Use of Well-Being Measures in Primary Health Care - The DepCare Project*. Health for All, Target 12, 1998. http://www.who.dk/document/e60246.pdf

Contact email: naim.fanaj@rezonanca-rks.com