



# Examining the role of life purpose in high school students' self-esteem through structural equation modelling

Gitima Sharma<sup>a,\*</sup>, Mariya Yukhymenko-Lescroart<sup>b</sup>, Tania Sanchez<sup>a</sup>

<sup>a</sup> Department of Counselor Education and Rehabilitation, California State University, Fresno, United States

<sup>b</sup> Department of Curriculum and Instruction, California State University, Fresno, United States

## ARTICLE INFO

### Keywords:

Life purpose  
High school students  
Self-esteem  
Meaning  
Identity

## ABSTRACT

The aim of this study was to examine the extent to which high school students' sense of purpose explained variance their self-esteem. Life purpose is a multidimensional construct that encompasses long-term goals, commitments, and intentions to fulfill aspirations that are meaningful to self and have consequences for the world beyond-the-self. For this study, we explored the role of three distinct dimensions of awareness of purpose, awakening to purpose, and altruistic purpose in predicting students' self-esteem. High school students' ( $N = 234$ ) between 14 and 18 years, completed surveys on self-esteem and sense of purpose. A structural model was tested, in which the three latent factors of awakening to purpose, awareness of purpose, and altruistic purpose were specified to predict a latent factor of self-esteem. Analyses were conducted using maximum likelihood estimation method. Findings showed that both awareness of purpose and altruistic purpose contributed positively to adolescents' self-esteem. Awakening to purpose, on the other hand, was not significantly related to adolescents' self-esteem once their awareness of purpose and altruistic purpose were taken into account. This study expanded the growing body of research on the role of purpose in contributing to school students' personal wellbeing and development. We have discussed the findings of this study and previous literature in the context of practical implications that could support school personnel, teachers, and counselors to engage in wellness-oriented approaches that could strengthen students' sense of purpose, and thereby their self-esteem.

High school represents an ideal and most critical time period for adolescents to forge a strong sense of identity and lay a strong foundation for fulfillment of their long-term aspirations. Positive identity development among adolescents plays an important role for their psychological well-being and educational success [1]. The two identity related constructs that this study has focused on are sense of purpose and self-esteem. Here, purpose is conceptualized as people's resolve to fulfill the goals through fulfilling which, they might actualize a positive change – both for themselves and society [2]. Self-esteem refers to people's positive or negative views about self [3].

Several scholars have emphasized theoretical and empirical overlaps between identity, self-esteem, and life purpose ([1,4,5]). The pioneering theory on identity by Erikson [5] described adolescents' identity development as the process of gaining clarity about who they are in the context of what they aspire to use their life for. Erikson [6] characterized the stage of identity vs. role confusion (12–18

\* Corresponding author. Department of Counselor Education and Rehabilitation, California State University, 5005 N. Maple Ave., M/S ED 3, Fresno, CA, 93740, United States.

E-mail address: [gsharma@csufresno.edu](mailto:gsharma@csufresno.edu) (G. Sharma).

<https://doi.org/10.1016/j.heliyon.2023.e19614>

Received 13 February 2023; Received in revised form 3 August 2023; Accepted 28 August 2023

Available online 29 August 2023

2405-8440/Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

years) as the time frame when adolescents explore their values, beliefs, and goals to develop a coherent sense of self and articulate their life's purpose. Based on Erikson's [5] theory, Marcia [7] proposed theory of identity statuses and similar to Marcia's [7] theory, Burrow et al. [8] conceptualized adolescents' purpose related identity statuses and found that adolescents with stronger purpose exploration, reported greater identity exploration. Similarly, Kosine et al. [9] demonstrated that students who feel more aware of their life purpose experience stronger sense of identity and career clarity. Additionally, in accord with the Social Cognitive Theory [10] both identity and life purpose serve as motivational forces that strengthen intentionality and forethought towards actualizing life's important pursuits. Given the importance of high school in fostering different dimensions of identity during the critical developmental phase of adolescence, we conducted this study to investigate empirical connections between students' self-esteem and life purpose as identity-related constructs.

## 1. Rationale for the present study

Research has highlighted both life purpose and self-esteem as protective factors that promote high school students' positive development and protects them from various mental health concerns including depression and anxiety ([11,12]). For example, research has shown that students with low self-esteem experience not only academic struggles but also are more prone to depression and anxiety [13]. People with high self-esteem, respect themselves and experience greater self-worth [3]. Whereas, those with low self-esteem experience diminished self-worth and strong self-rejection [3]. Empirical studies have further shown positive effects of high self-esteem on adolescents' academic success, willingness to learn, resistance to peer pressure, subjective wellbeing, happiness and problem solving and coping skills (e.g., 9; 43). Research has further shown deleterious effects of low self-esteem on adolescents' academic performance, mental health, and personal development ([14,11]).

Despite the central role that self-esteem plays in contributing to adolescents' mental health, wellbeing, and academic outcomes, much more research is needed to explore the factors that strengthen adolescents' self-esteem [15]. So far, research has shown that adolescents' gender, race, ethnicity, family's expectations, peer pressure, and parents pressure play a significant role in leading to individual differences in self-esteem (e.g., [16,17,18,19,]34). For instance, females experience much lower levels of social, academic, and physical self-esteem than males [20]. In relation to age, unrealistic positive self-views fuels young children to possess a high level of self-esteem but as children grow, developmental changes commonly associated with puberty contribute to lower self-esteem [21].

According to Damon [22], one of the major differences between adolescents who believe in themselves and those who give up on their goals, lies in whether they had found a strong sense of purpose in life. Similarly, Ikeda [23,24] has emphasized that every youth has a unique purpose and through deepening confidence in the vast potential and purpose of their life, they can continue to persevere on the path of their goals-fulfillment. Research has also demonstrated that sense of purpose contributes to students' self-esteem and persistence ([25,9,26]). Studies have further shown that adolescents' self-esteem is also influenced by the extent to which they make efforts towards achieving their goals [27], which can be influenced by the long-term purpose that drives their goals. Further, adolescents who struggle with weak sense of purpose report lower self-esteem [16].

However, there is a lack of empirical understanding about the role that sense of purpose plays in contributing to adolescents' self-esteem. The aim of this study was to expand the literature on individual differences among adolescents' self-esteem in relation to their sense of purpose. The results of this study have the potential to inform educational and wellness-oriented intervention efforts that can promote adolescents' positive development.

### 1.1. Conceptual framework

Life purpose is a multidimensional construct that encompasses long-term goals, commitments, and meaningful intentions (e.g., [28, 29,2]). Research has highlighted life purpose as a predictor of not only adolescents' higher levels of self-esteem [16], but also their educational persistence [26], enhanced life satisfaction [30], positive coping with adversity [31], reduced depressive symptoms [30], psychological flourishing [32], and sense of stability amidst stressful events of global pandemic [33].

Recently, a study amidst COVID-19 pandemic showed sense of purpose in life as a protective factor against anxiety, depression, and psychopathology [34]. With regard to academic outcomes, recent studies have also shown that students with stronger sense of purpose to engage in personal growth and self-improvement engage in less frequent misconduct [35]. Clear sense of purpose also strengthens students' academic identity and grades [36].

A unique contribution of this study lies in using a multidimensional measure of purpose titled the Revised Sense of Purpose Scale that has already been validated among adolescents, emerging adults, and adults in assessing three different dimensions of purpose: awareness of purpose, awakening to purpose, and altruistic purpose (SOPS-2, 40; 47). In relation to altruistic purpose, research has shown that those who feel inclined to engage in prosocial activities that can benefit others, report greater academic achievement [37], higher self-esteem [38], and lesser mental health concerns [39]. Qualitative studies have also shown that students with altruistic purpose, report greater self-worth and confidence in their life's potential to achieve something beneficial for self and others [40]. This study examined the extent to which purpose explained variance in adolescents' self-esteem.

### 1.2. The study purpose

In sum, previous studies have suggested that adolescents with a clear sense of purpose are likely to have a strong self-esteem ([16, 41]). However, no previous study has yet examined the relationship between sense of purpose operationalized through three dimensions of awakening to purpose, awareness of purpose, altruistic purpose and self-esteem of adolescents. Therefore, the aim of this

study was to examine the relationship between all three dimensions of purpose and self-esteem among adolescents. Based on the reviewed literature ([16,41]), we hypothesized significant positive relationships between the three dimensions of purpose and self-esteem.

## 2. Method

### 2.1. Participants

Participants were 234 adolescents who were recruited at a public high school. One hundred and ten students identified as male 120 as female and four did not indicate their gender identification. In terms of age, participants were between 14 and 18 years old ( $M = 15.95$ ,  $Mdn = 16.00$ ,  $SD = 1.14$ ). The students were in the 10th ( $n = 116$ ), 11th ( $n = 3$ ), and 12th grades ( $n = 115$ ).

## 3. Measures

### 3.1. Self-esteem

Students completed the Rosenberg Self-Esteem Scale [42], which was developed to measure self-worth in adolescents and adults by assessing both positive (five items, e.g., I feel that I have a number of good qualities) and negative feelings (five items, e.g., I certainly feel useless at times). The 10-item scale consists of statements dealing with general feelings and students responded to the items with a scale ranging from 1 to 5 of strongly disagree, disagree, neutral, agree, and strongly agree. This scale has been tested for reliability and validity and is one of the most widely used measure of global self-esteem. Reliability estimate was reported to be 0.88 with a one-week test-retest reliability of 0.82 [42].

### 3.2. Sense of purpose

Students completed the Revised Sense of Purpose Scale (SOPS-2, 40; 47), designed to measure the following three dimensions of life purpose: awareness of purpose (five items, e.g., I have a clear understanding of my life's purpose), awakening to purpose (four items, e.g., I am gaining clarity about my life's purpose), and altruistic purpose (five items, e.g., I seek to help others). This scale consists of 14 statements with which students indicate their level of agreement on a response scale ranging from 1 to 5 of strongly disagree, disagree, neutral, agree, and strongly agree. The items of this scale have been tested for reliability and validity and showed strong psychometrics properties. In previous studies, reliability estimates were reported to be 0.85-0.96 for awakening to purpose, 0.94-0.98 for awareness of purpose, 0.88-0.92 for altruistic purpose ([43,44]).

### 3.3. Procedure

After obtaining a research ethics approval from the University and from the participating school, students completed an online survey that was hosted in Qualtrics survey management system. The data collection was confidential and students obtained an extra credit for completing the survey regardless of their decision to provide assent for research purposes. Following the policy and procedures for research with minors, responses were included in this study from only those participants for whom both parental consents and participant assents were obtained.

### 3.4. Data analysis

Analyses were conducted in Mplus, version 8.8 [45]. Preliminary analyses consisted of checking validity of the scales by conducting a series of confirmatory factor analysis (CFA) on the items measuring sense of purpose in life and self-esteem, reliability analyses, and correlations among the measured variables. The CFA models were assessed based on several fit indices. Specifically, following guidelines for models with 12–30 observed items in samples with fewer than 250 participants ([46], p. 642), the following suggested values for fit indices were used to guide decisions about model fit: comparative fit index (CFI) and Tucker Lewis Index (TLI) of 0.97 or higher, root mean square error of approximation (RMSEA) of less than 0.08 with CFI of 0.97 or higher, and standardized root mean square residual (SRMR) of 0.08 or less with CFI of 0.95 or higher. As highlighted by Hair et al. ([46], p. 642), these values do not indicate absolute rules separating good and bad fit, but provide a practical suggestion of how fit indices can be used. Once the measurement models were satisfactory, a structural model was tested to address the study purpose, in which the three latent factors of awakening to purpose, awareness of purpose, and altruistic purpose were specified to predict a latent factor of self-esteem. Analyses were conducted using maximum likelihood estimation method. Results are presented using standardized estimates, which can be interpreted as effect sizes, and 95% confidence intervals for the estimates.

## 4. Results

### 4.1. Preliminary analysis: measurement models

Consistent with previous studies (e.g., [47,48]), a single-factor specification of the Rosenberg self-esteem items showed a poor fit:

$\chi^2$  (35,  $N = 234$ ) = 285.39,  $p < .001$ , RMSEA = 0.175, 90%CI [0.156, 0.194], CFI = 0.718, TLI = 0.637, SRMR = 0.108, which is driven by the items with negative valence in the RSE measure (i.e., the response style method effect). Indeed, adding a grouping factor for the items with negative valence by using a bifactor specification on the RSE items with one overall factor of self-esteem (i.e., the substantive factor) and a latent grouping factor for the five items with negative valence (i.e., the method factor) improved model fit:  $\chi^2$  (30,  $N = 234$ ) = 55.51,  $p = .003$ , RMSEA = 0.060, 90% CI [0.035, 0.085], CFI = 0.971, TLI = 0.957, SRMR = 0.036. The estimate of construct reliability for the substantive factor of self-esteem was 0.85, indicating good internal consistency.

Following previous validation studies of the SOPS-2 (e.g., 40; 47), the items of sense of purpose in life were specified using an independent cluster model confirmatory factor analysis (ICM-CFA) with three correlated factors. The model showed a good fit to the data:  $\chi^2$  (74,  $N = 234$ ) = 154.21,  $p < .001$ , RMSEA = 0.068, 90% CI [0.053, 0.083], CFI = 0.974, TLI = 0.968, SRMR = 0.029. Construct reliability estimates indicated good internal consistency and were 0.93 for awakening to purpose, 0.96 for awareness of purpose, and 0.90 for altruistic purpose.

An overall measurement model with items of sense of purpose in life specified as a three-correlated ICM-CFA model and self-esteem specified as a bifactor model also showed a good fit:  $\chi^2$  (238,  $N = 234$ ) = 408.08,  $p < .001$ , RMSEA = 0.055, 90% CI [0.046, 0.064], CFI = 0.959, TLI = 0.952, SRMR = 0.045. As shown in Table 1, the three dimensions of purpose were positively and significantly correlated with self-esteem, ranging from 0.45 to 0.53,  $p < .001$ .

#### 4.2. Main analysis: structural model

A structural model was specified to test the extent to which awakening to purpose, awareness of purpose, and altruistic purpose were significant predictors of self-esteem among adolescents. The structural model was built on the overall measurement model by adding structural paths between each dimension of life purpose and self-esteem. Consistent with the specification of the bi-factor model, the method factor was specified to not be correlated with the general substantive self-esteem factor, but was allowed to freely correlate with awakening to purpose, awareness of purpose, and altruistic purpose. Therefore, the fit of the structural model was identical to the fit of the overall measurement model. Results are presented in Table 2. Self-esteem was positively predicted by both awareness of purpose,  $\beta = 0.32$ , 95% CI [0.08, 0.55], SE = 0.12,  $p = .008$ , and altruistic purpose,  $\beta = 0.23$ , 95% CI [0.09, 0.38], SE = 0.08,  $p = .002$ . Nevertheless, awakening to purpose emerged as a non-significant predictor of self-esteem,  $\beta = 0.14$ , 95% CI [-0.11, 0.39], SE = 0.13,  $p = .278$ . The Wald tests of parameter constraints showed that the estimates were invariant across gender (male, female),  $\chi^2$  (3,  $N = 230$ ) = 0.99,  $p = .803$  and grade level (10th, 12th),  $\chi^2$  (3,  $N = 231$ ) = 5.61,  $p = .132$ . A total of 35.3% of the variance in self-esteem was explained by awakening to purpose, awareness of purpose, and altruistic purpose, as indicated by the  $R^2$  value.

### 5. Discussion

Given the importance of identity development in contributing to high school students' well-being and success [1], we conducted the present study to explore the relationship between their identity dimensions of self-esteem and sense of purpose. Several theorists have emphasized identity, purpose, and self-esteem as overlapping and reinforcing constructs (e.g., 4; 6; 10; 15). According to Bandura's [10] Social Cognitive Theory, identity and purpose are important motivational forces that strengthen students' intentionality and sense of agency towards fulfilling their life's pursuits. Research has further shown the positive role of sense of purpose and self-esteem in promoting high school students' mental health, subjective well-being, academic success, career clarity, and positive coping skills (e.g., 9; 23; 43).

However, despite the important role that identity dimensions such as self-esteem and sense of purpose play for high school students, there is a lack of research on the empirical connections between these constructs. To reduce this gap, in the present study we investigated the role of students' awareness of purpose, awakening to purpose, and altruistic purpose in predicting their self-esteem.

### 6. Awareness of purpose

The findings of this study showed awareness of purpose as a significant predictor of high school students' self-esteem, suggesting that adolescents who have a clear sense of purpose in life experience high self-esteem. Since having high self-esteem relates to favorable assessments of the self [49], it is possible that adolescents who feel confident about their life's purpose might be more likely

**Table 1**

Descriptive statistics and estimates of reliability and correlation for the measured variables.

Variable			Reliability estimate	Correlation Estimates		
	<i>M</i>	<i>SD</i>		1	2	3
1. Self-esteem	3.18	0.68	.85	–		
2. Awakening to purpose	4.69	1.38	.93	.53 [.42, .64]	–	
3. Awareness of purpose	4.38	1.51	.96	.54 [.44, .65]	.83 [.78, .88]	–
4. Altruistic purpose	5.44	1.05	.90	.45 [.33, .57]	.53 [.43, .63]	.45 [.34, .57]

Note. In brackets are 95% confidence intervals for correlation estimates. All correlations in the table are significant,  $p < .001$ . Correlations between the method factor (i.e., self-esteem items with negative valence) and measures of sense of purpose in life were:  $r = -0.12$ ,  $p = .089$  for awakening to purpose,  $r = -0.07$ ,  $p = .338$  for awareness of purpose, and  $r = -0.24$ ,  $p = .001$  for altruistic purpose.

**Table 2**  
Standardized results of structural equation model.

	Estimate	95% CI	SE	p
Awakening to purpose → self-esteem	.14	[-.11, .39]	.13	.278
Awareness of purpose → self-esteem	.32	[.08, .55]	.12	.008
Altruistic purpose → self-esteem	.23	[.09, .38]	.08	.002

Note. Correlations between the method factor (i.e., self-esteem items with negative valence) and measures of sense of purpose in life were:  $r = -0.19$ ,  $p = .046$  for awakening to purpose,  $r = -0.14$ ,  $p = .144$  for awareness of purpose, and  $r = -0.30$ ,  $p = .001$  for altruistic purpose.

to perceive themselves in a positive way.

Previous research and philosophical underpinnings have also highlighted the importance of purpose in helping youth to experience greater sense of self-worth and self-esteem (e.g., [25,28,23]). Based on Social Cognitive Theory [10], it is possible that sense of purpose strengthens students' sense of agency to continue to make efforts for actualizing their long-term goals, the fulfillment of which contributes to their self-esteem [27]. Overall, combined with previous research, this study has reaffirmed the role of purpose as a significant individual factor that contributes to adolescents' positive self-esteem amidst externally changing circumstances and evaluations of others ([25,33]).

### 6.1. Awakening to purpose

Surprisingly, after accounting for awareness of purpose and altruistic purpose, awakening to purpose was not related to self-esteem. Similar to this finding, Blattner et al. [16] concluded that if adolescents are not able to find or feel other's support during the process of clarifying their life's purpose, they experience diminished self-esteem. In the absence of positive social support, adolescents might fear that they will never be able to find their life's purpose and hence feel lower confidence in self. However, in the presence of positive social support, adolescents experience "transformative growth" and self-confidence while searching for their life's purpose (3, p. 840).

Therefore, even if awakening to purpose contributes to adults' wellbeing and persistence [50], it might be challenging for adolescents to feel confidence in their own selves and future without positive support. Based on these results, we suggest the importance of validating adolescents' process of purpose-exploration and supporting them to persevere and not give in to the feelings of self-doubt. When students actively engage in the process of exploring their purpose, they also report stronger resilience and persistence [50], thereby reaffirming the importance of supporting adolescents during the process of awakening to their purpose in life.

## 7. Altruistic purpose

The current study further showed that self-esteem was positively predicted by altruistic purpose, suggesting that adolescents who seek to make a positive difference in society experience stronger self-esteem. Thereby, apart from supporting adolescents to develop a general sense of purpose in life, helping them reflect upon the value of their life in contributing to the world beyond-the-self can further strengthen their self-esteem. This suggestion accords with the previous research that has shown the positive role of altruistic purpose and prosocial behavior in strengthening students' wellbeing, self-confidence, and mental health (e.g., 7; 18; 38). For example, Sharma and de Alba's [40] phenomenological study showed that college students with altruistic sense of purpose experienced positive self-esteem through engaging in activities that could benefit others. Therefore, through reflecting upon the significance of their life in contributing to others' life, it is possible that adolescents can awaken to their own life's worth and develop greater self-esteem.

## 8. Practical implications

The results of this study have expanded the growing body of research on the role of purpose in contributing to adolescents' personal wellbeing and development ([30,9,31,26]). Based on these results, we suggest promoting educational programs that can help adolescents strengthen their self-esteem through developing a stronger sense of purpose. Similar to self-esteem, sense of purpose is subjective and varies based on students' individual differences [41]. Therefore, while engaging in purpose-centered interventions, it is crucial to support adolescents to reflect upon their own personal strengths, meaning making experiences, and aspirations instead of comparing their journey of purpose and self-exploration with others. School teachers and counselors could for instance, provide adolescents reflective journal prompts that can help them to explore the relationship between their personal identity, values, life's experiences, and future aspirations [2].

Since adolescence is a critical time period for purpose-exploration [5], and this study showed that adolescents who have not achieved strong awareness about their life's purpose might be struggling with lower self-esteem, it is important to strengthen support for adolescents to not give up on their journey of exploring their life's purpose while believing in their life's potential to live a purpose-driven life. It is also important to support them in the process of gaining clarity about their life's purpose in the context of making a positive difference in society, since that contributes significantly to their self-esteem. School personnel could therefore implement peer mentoring, community-based projects, and service-learning opportunities within the class curriculum that research has shown play an important role in awakening students to their life's altruistic aspirations and purpose (e.g., [51,9,40]).

## 9. Limitations and future directions

Some of the limitations of this study are that we relied on self-report questionnaires from the single source (adolescent participants), which might have led to social desirability and response bias. Also, due to the cross-sectional nature of the data, we cannot draw causal inferences. Finally, the sample of 234 adolescents cannot be considered to be a representative sample of this population, which is also a limitation of this study. However, despite these limitations, the present study provided significant empirical evidence for the positive role of both awareness of purpose and altruistic purpose in contributing to adolescents' self-esteem. Moreover, this study was conducted amidst COVID-19 pandemic that has increased the importance of engaging in strengths-based approaches that can help adolescents cope and remain undefeated on the path of their long-term life aspirations [50].

Given the importance of sense of purpose in predicting adolescents' academic and wellbeing-oriented outcomes, future research could further examine demographic (e.g., gender), cognitive (e.g., grades), and non-cognitive (e.g., hope) factors as moderators of the links between self-esteem and purpose. Researchers could also conduct mixed-methods and qualitative studies to conduct an in-depth analysis on how a growing sense of purpose might influence adolescents' sense of self and self-esteem. Since both self-esteem and purpose are developmental constructs that change over time, future longitudinal studies that can examine how both self-esteem and purpose change longitudinally in relation to one another. Future research could also focus on designing, implementing, and evaluating the effectiveness of educational programs that can help students to strengthen their sense of purpose and self-esteem in relation to one another.

## 10. Conclusions

The present study examined the extent to which three identity dimensions of awareness of purpose, awakening to purpose, and altruistic purpose explained variance in high school students' self-esteem. Findings showed both awareness of purpose and altruistic purpose as significant predictors of high school students' self-esteem. Thereby, reaffirming the importance of implementing counseling and educational programs that could help adolescents strengthen their self-esteem through developing a stronger sense of purpose. Specifically, this study showed that through supporting students to gain clarity about their life's purpose in the context of how they can make a positive difference in society, school personnel could help students to develop positive self-esteem.

### Ethics approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committees.

### Consent

Informed consent was obtained from all individual participants included in the study.

### Author contribution statement

Gitima Sharma: Conceived and designed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper. Mariya Yukhymenko: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper. Tania Sanchez: Contributed reagents, materials, analysis tools or data; Wrote the paper.

### Data availability statement

Data will be made available on request.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## References

- [1] K.C. Bronk, The role of purpose in life in healthy identity formation: a grounded model, *N. Dir. Youth Dev.* 132 (2011) 31–44, <https://doi.org/10.1002/yd.426>.
- [2] G. Sharma, M.A. Yukhymenko-Lescroart, A framework for cultivating purpose as a pedagogy of care, *Italian Journal of Educational Technology* (2022), <https://doi.org/10.17471/2499-4324/1234>.
- [3] M. Rosenberg, *Society and the Adolescent Self-Image*, Princeton University Press, Princeton, NJ, 1965.
- [4] A.W. Chickering, Empowering lifelong self-development, *NACADA Journal* 14 (2) (1994) 50–53, <https://doi.org/10.12930/0271-9517-14.2.50>.
- [5] E.H. Erikson, *Identity: Youth and Crisis*, W. W. Norton & Company, New York, 1968.
- [6] E.H. Erikson, *Childhood and Society*, Norton, New York, NY, 1950.
- [7] J.E. Marcia, Development and validation of ego identity status, *J. Pers. Soc. Psychol.* 3 (1996) 551–558.



- [8] A.L. Burrow, A.C. O'Dell, P.L. Hill, Profiles of a developmental Asset: youth purpose as a context for hope and well-being, *J. Youth Adolesc.* 39 (2010) 1265–1273.
- [9] N.R. Kosine, M.R. Steger, S. Duncan, Purpose-centered career development: a strengths-based approach to finding meaning and purpose in careers, *Prof. Sch. Counsel.* 72 (2008) 133–135.
- [10] A. Bandura, Social cognitive theory: an agentic perspective, *Annu. Rev. Psychol.* 52 (1) (2001) 1–26.
- [11] A.E. Steiger, M. Allemand, R.W. Robins, H.A. Fend, Low and decreasing self-esteem during adolescence predict adult depression two decades later, *J. Pers. Soc. Psychol.* 106 (2) (2014) 325–338, <https://doi.org/10.1037/a0035133>.
- [12] M. Wang, O.R. Lightsey, T. Pietruszka, A. Ciftciuruk, A.G. Wells, Purpose in life and reasons for living as mediators of the relationship between stress, coping, and suicidal behavior, *J. Posit. Psychol.* 2 (2007) 195–204, <https://doi.org/10.1080/17439760701228920>.
- [13] H. Cheng, A. Furnham, Personality, self-esteem, and demographic predictions of happiness and depression, *Pers. Individ. Differ.* 34 (6) (2003) 921–942, [https://doi.org/10.1016/S0191-8869\(02\)00078-8](https://doi.org/10.1016/S0191-8869(02)00078-8).
- [14] T. Sheykhan, K. Jabari, K. Rajeswari, Self-esteem and academic achievement of high school students, *Cognitive Discourses: International Multidisciplinary Journal* 2 (2) (2014) 38–41.
- [15] A.A. Gardner, C.A. Lambert, Examining the interplay of self-esteem, trait-emotional intelligence, and age with depression across adolescence, *J. Adolesc.* 71 (2019) 162–166.
- [16] M.C. Blattner, B. Liang, T. Lund, R. Spencer, Searching for a sense of purpose: the role of parents and effects on self-esteem among female adolescents, *J. Adolesc.* 36 (5) (2013) 839–848.
- [17] M.H. Kernis, Toward a conceptualization of optimal self-esteem, *Psychol. Inq.* 14 (2003) 1–26.
- [18] R.H. Miyamoto, E.S. Hishinuma, S.T. Nishimura, L.B. Nahulu, N.N. Andrade, D.A. Goebert, Variation in self-esteem among adolescents in an Asian/Pacific-Islander sample, *Pers. Individ. Differ.* 29 (1) (2000) 13–25, [https://doi.org/10.1016/S0191-8869\(99\)00171-3](https://doi.org/10.1016/S0191-8869(99)00171-3).
- [19] R.W. Robins, K.H. Trzesniewski, J.L. Tracy, S.D. Gosling, J. Potter, Global self-esteem across the life span, *Psychol. Aging* 17 (3) (2002) 423.
- [20] K. Rentzsch, M.P. Wenzler, A. Schütz, The structure of multidimensional self-esteem across age and gender, *Pers. Individ. Differ.* 88 (2016) 139–147, <https://doi.org/10.1016/j.paid.2015.09.012>.
- [21] R.W. Robins, K.H. Trzesniewski, Self-esteem development across the lifespan, *Curr. Dir. Psychol. Sci.* 14 (3) (2005) 158–162.
- [22] W. Damon, *The Path to Purpose: How Young People Find Their Calling in Life*, The Free Press, New York, 2008.
- [23] D. Ikeda, *The Wisdom for Creating Happiness and Peace*, World Tribune Press, 2017.
- [24] D. Ikeda, *Discussions on Youth*, World Tribune Press, 2010.
- [25] A.L. Burrow, N. Rainone, How many likes did I get?: purpose moderates links between positive social media feedback and self-esteem, *J. Exp. Soc. Psychol.* 69 (2017) 232–236, <https://doi.org/10.1016/j.jesp.2016.09.005>.
- [26] G. Sharma, J. Kim, K. Bernal-Arevalo, The Relationship between High School Sophomores' Purpose Orientations and Their Postsecondary Completion a Decade Later, *Professional School Counseling*, 2021, <https://doi.org/10.1177/2156759X20981051>.
- [27] V. Negovan, E. Bagana, A comparison of relationship between self esteem and vulnerability to depression among high school and freshmen university students, *Procedia - Social and Behavioral Sciences* 30 (2011) 1324–1330, <https://doi.org/10.1016/j.sbspro.2011.10.257>.
- [28] W. Damon, J. Menon, K.C. Bronk, The development of purpose during adolescence, *Appl. Dev. Sci.* 7 (2003) 119–128, [https://doi.org/10.1207/S1532480XADS0703\\_2](https://doi.org/10.1207/S1532480XADS0703_2).
- [29] J.M. Staples, S. Troutman, What's the purpose? How urban adolescents of color interpret and respond to noble and ignoble purposes constructed in media texts, *Journal of Urban Learning, Teaching, and Research* 6 (2010) 31–43.
- [30] H.Y. Chen, C.L. Cheng, Developmental trajectory of purpose identification during adolescence: links to life satisfaction and depressive symptoms, *J. Adolesc.* 80 (2020) 10–18, <https://doi.org/10.1016/j.adolescence.2020.01.013>.
- [31] H. Malin, E. Morton, A. Nadal, K.A. Smith, Purpose and coping with adversity: a repeated measures, mixed-methods study with young adolescents, *J. Adolesc.* 76 (2019) 1–11, <https://doi.org/10.1016/j.adolescence.2019.07.015>.
- [32] M.X. Zhang, H.M. Yang, K.-K. Tong, A.M.S. Wu, The prospective effect of purpose in life on gambling disorder and psychological flourishing among university students, *Journal of Behavioral Addictions* 9 (3) (2020) 756+. <https://link-gale-com.hmlproxy.lib.csufresno.edu/apps/doc/A657923320/AONE?u=csufresno&sid=bookmark-AONE&xid=91560e95>.
- [33] K. Ratner, A.L. Burrow, J. Mendle, P.L. Hill, A prospective study of college student depressive symptoms, sense of purpose, and response to a COVID-19 campus shutdown, *Pers. Individ. Differ.* 189 (2022), 111475, <https://doi.org/10.1016/j.paid.2021.111475>.
- [34] I. Echeverria, M. Peraire, D. Penadés, V. Quintero, A. Benito, I. Almodóvar, G. Haro, Purpose in life and character strengths as predictors of health sciences students' psychopathology during the COVID-19 pandemic, *Front. Psychiatr.* 13 (2022), 932249, <https://doi.org/10.3389/fpsy.2022.932249>.
- [35] M. Yukhymenko-Lescroart, G. Sharma, J.M. Stephens, Life-purpose orientations and academic misconduct among university students in Mexico, *J. Coll. Student Dev.* 63 (3) (2022) 333–337, <https://doi.org/10.1353/csd.2022.0027>.
- [36] M.A. Yukhymenko-Lescroart, G. Sharma, Sense of life purpose is related to grades of high school students via academic identity, *Heliyon* (2022), <https://doi.org/10.1016/j.heliyon.2022.e11494>.
- [37] G.V. Caprara, C. Barbaranelli, C. Pastorelli, A. Bandura, P.G. Zimbardo, Prosocial foundations of children's academic achievement, *Psychol. Sci.* 11 (4) (2000) 302e306, <https://doi.org/10.1111/1467-9280.00260>.
- [38] A. Zuffianò, G. Alessandri, B.P. Kanacri, C. Pastorelli, M. Milioni, R. Ceravolo, M.G. Caprara, G.V. Caprara, The relation between prosociality and self-esteem from middle-adolescence to young adulthood, *Pers. Individ. Differ.* 63 (2014) 24–29, <https://doi.org/10.1016/j.paid.2014.01.041>.
- [39] E.E. Haroz, L.K. Murray, P. Bolton, T. Betancourt, J.K. Bass, Adolescent resilience in Northern Uganda: the role of social support and prosocial behavior in reducing mental health problems, *J. Res. Adolesc.* 23 (1) (2013) 138–148, <https://doi.org/10.1111/j.1532-7795.2012.00802.x>.
- [40] G. Sharma, E. De Alba, Sense of purpose among female students belonging to minority ethnic and Buddhist backgrounds, *J. Coll. Character* 19 (2) (2018) 137–151, <https://doi.org/10.1080/2194587X.2018.1445644>.
- [41] S. Hodges, S. Dening, A. Crowe, Attitudes of college students towards purpose in life and self-esteem, *International Journal of Existential Psychology and Psychotherapy* 5 (1) (2014).
- [42] M. Rosenberg, *Rosenberg Self-Esteem Scale (RSES)* [Database Record], APA PsycTests, 1965, <https://doi.org/10.1037/t01038-000>.
- [43] G. Sharma, M. Yukhymenko-Lescroart, Validation of the revised sense of purpose scale with emerging adults, *Journal of Character Education* 15 (2) (2019) 39–52.
- [44] M.A. Yukhymenko-Lescroart, G. Sharma, Examining the factor structure of the revised sense of purpose scale (SOPS-2) with adults, *Applied Research in Quality of Life* 15 (4) (2020) 1203–1222, <https://doi.org/10.1007/s11482-019-09729-w>.
- [45] L.K. Muthén, B.O. Muthén, Mplus, 2012–2022. Version 8.8 [computer software] Muthén & Muthén, <https://www.statmodel.com/>.
- [46] J.F. Hair Jr., W.C. Black, B.J. Babin, R.E. Anderson, *Multivariate Data Analysis, eighth ed.*, Cengage, 2019.
- [47] H.W. Marsh, L.F. Scalas, B. Nagengast, Longitudinal tests of competing factor structures for the Rosenberg Self-Esteem Scale: traits, ephemeral artifacts, and stable response styles, *Psychol. Assess.* 22 (2) (2010) 366–381, <https://doi.org/10.1037/a0019225>.
- [48] M.T. McKay, D. Boduszek, S.A. Harvey, The Rosenberg Self-Esteem Scale: a bifactor answer to a two-factor question? *J. Pers. Assess.* 96 (6) (2014) 654–660, <https://doi.org/10.1080/00223891.2014.923436>.
- [49] R.F. Baumeister, J.D. Campbell, J.I. Krueger, K.D. Vohs, Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychol. Sci. Publ. Interest* 4 (1) (2003) 1–44, <https://doi.org/10.1111/1529-1006.01431>.
- [50] G. Sharma, M.A. Yukhymenko-Lescroart, Life purpose as a predictor of resilience and persistence in college students during the COVID-19 pandemic, *J. Coll. Stud. Retent.: Res. Theory & Practice* (2002), <https://doi.org/10.1177/15210251221076828>.
- [51] S.I. Koshy, J.M. Mariano, Promoting youth purpose: a review of the literature, *N. Dir. Youth Dev.* 132 (2011) 13–29, <https://doi.org/10.1002/yd.425>.