



University of Hormozgan

The Mediating Role of Purpose in Life in the Relationships between Resilience and Happiness among University Students

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ABSTRACT

Objective: This study aims to investigate the potential mediation role of purpose in life in the association between resilience and happiness among university students.

Methods: A sample of 410 students from the University of Shiraz and the University of Hormozgan participated in this research using a convenience sampling method in the 2022-2023 academic year. To collect data, the Resilience Scale (RS-14; Wagneild, 2009; Hashemi et al., 2018), the Measure of Happiness (MH; Rizzato et al., 2022; Tavoosi et al., in press), the Purpose in Life Test-Short Form (PIL-SF; Schulenberg et al., 2011; Tavoosi et al., in press) were used.

Results: Results indicated that resilience and purpose in life were predictors of happiness, accounting for 34% and 62% of the variance, respectively. Also, resilience predicts 35% of the variance of purpose in life. The results of the model showed that purpose in life plays a mediating variable in the association between resilience and happiness.

Conclusions: The findings of the present research provide evidence that people with higher resilience have a purpose in their lives, and having a purpose in life can increase psychological well-being so that people with a purpose in life report higher levels of happiness.

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Introduction

Early adulthood, between the ages of 18 and 29, during which many young people break free from the dependencies of childhood and adolescence and explore future life paths, is defined as emerging adulthood (Arnett, 2011), a period characterized by intense changes, discernment, and exploring various possibilities (Czyżowska, 2022). Important challenges and developmental tasks of this period include identity formation and finding meaning in life (Mayseless & Keren, 2014). This period is comparable to entering university, which leads to major changes in an individual's life and is considered a very sensitive period. Considering that close to 4 million students are studying at universities in Iran (ISNA, 2023), transitioning to university can be a challenging experience as students leave behind their usual lives, friends, and families to live in a new place, attend more difficult classes, and meet new people (Pfund, Bono, & Hill, 2022).

Being in unfamiliar conditions such as many students being unfamiliar with the university environment upon entry, separation and distance from family, discord with others in the living environment, and insufficient welfare and economic facilities often come with pressure and anxiety simultaneously and can affect individuals' performance and mental health (Alizadeh-Navaei & Hosseini, 2014). Studies show a high prevalence of disorders such as stress, anxiety, and depression among students (Ostafin & Proulx, 2020). According to a meta-analysis examining 77 mental health papers from 1991 to 2014, the overall prevalence of mental disorders among Iranian students was estimated at 33% (Zare et al., 2016). Other studies (e.g., Solehi et al., 2018; Mehrabian et al., 2021) have reported similar results. A recent study of 24 universities in nine countries indicated that almost all students have experienced stress in at least one area such as financial status, health, romantic life, relationships with family members, and relationships at work/university (Karyotaki et al., 2020). Therefore, mental health among university students indicates increasing concern worldwide (Bachem et al., 2023). Recent research has suggested that finding purpose can play a facilitating role in helping students cope with challenges and stresses during their college years so that they can increase their resilience against the various stresses they experience during their studies and create an appropriate foundation for improving their well-being (Pfund et al., 2020).

In recent years, with the emergence of positive psychology, variables such as happiness, and resilience, and their effects on individuals' lives and adaptation have been more closely examined

than ever before. The importance of studying factors reducing the effects of negativity has increased in recent years, thus the concept of resilience has become a subject of much research (Sagone et al., 2020). Researchers define psychological resilience based on risk factors, protective factors, and adaptive behaviors in dealing with negativity (Naglieri et al., 2013). Studies show that resilience positively affects mental health (Schwarzer & Warner, 2013). In this regard, resilience can be viewed as one of the resources that have a positive impact on happiness and mental vitality. One of the most important emotional experiences in human life is happiness (Zheng & MacCann, 2023). Happiness is a construct that depicts a positive feeling in the observer and generally represents well-being. It can be considered a relatively stable state associated with various aspects of an individual's life and is distinguished from emotions such as joy or sadness that are transient in nature (Rizzato et al., 2022). Happiness is the ability to balance between different emotions and cognitive evaluations of well-being and is characterized by positive psychological features such as environmental mastery, personal growth, and autonomy (Ryff, 2013).

Interest in conceptualizing and measuring the construct of "meaning in life" primarily originates from the field of logotherapy as introduced by the pioneering work of Viktor Frankl (2010) and subsequently developed by others (Lukas et al., 2002). Having meaning in life is one of the most fundamental human needs, and researchers in positive psychology increasingly focus on the role of purpose in human self-actualization. A growing body of theoretical and empirical literature suggests that having a purpose in life contributes to human growth optimally in various ways. Purpose in life is defined as a commitment to a clear set of aims or causes that guide actions while also leading to a sense that life is meaningful (McKnight & Kashdan, 2009).

Damon and colleagues (2003) defined purpose as the stable and general intention of individuals to achieve something that gives meaning to their lives and leads to matters beyond themselves. Researchers believe that feeling a sense of purpose is one of the important characteristics of unlimited potential for a good life, as it can motivate students to not only fulfill their personal goals but also strive for higher benefits for humanity (Sharma & Yukhymenko-Lescroart, 2022). Numerous studies have shown the important role of purpose in motivating students (Sharma & De Alba, 2018), aiding mental health (Bronk et al., 2009), goal clarity (Vaccaro et al., 2018), well-being (Bronk et al., 2009), self-efficacy (DeWitz et al., 2009), academic identity (Yukhymenko-Lescroart & Sharma, 2020), degree-commitment (Sharma et al., 2021), job success (Kosine et al.,

2008), resilience in adversity (Hill et al., 2018), and college retention (Yukhymenko-Lescroart & Sharma, 2020). Researchers have also found that purpose in life has a positive correlation with resilience and is one of the best predictors of happiness.

Previous studies provide evidence that resilience predicts happiness, these studies have been conducted among immigrants (Brailovskaia et al., 2019), individuals with mental disorders (Karris Bachik et al., 2020), student nurses (Benada & Chowdhr, 2017), and high school students (Pourkord et al., 2020) have key limitations. Therefore, there is still limited information on how resilience affects the levels of happiness among university students. Thus, further investigation is needed on happiness and its association with resilience. Additionally, from a psychological health perspective, pursuing goals with hope is related to happiness, optimism, and life satisfaction. From a physical health perspective, it is associated with lower rates of mild cognitive impairment, regression in some cancers, improvement in cardiovascular health indicators, and even longevity (Hill & Turiano, 2014).

For adolescents and young adults, goal development is also associated with indicators of academic success, including academic efficacy, strength, resilience, and internal locus of control (Hill et al., 2014). Despite finding a sense of purpose in life is one of the factors that clearly influences adolescent development (see Hill et al., 2014) and well-being in emerging adulthood (Hill et al., 2016), however, limited research has examined the role of purpose in life on resilience and happiness among university students (Pfund et al., 2020).

Studies conducted in other countries provide evidence for the associations between resilience, happiness, and purpose in life. However, to date, no research has investigated the role of purpose in life in the relationship between resilience and happiness. Therefore, the current research aims to investigate the potential mediating role of purpose in life in the association between resilience and happiness.

Materials and Methods

The current research is a non-experimental descriptive correlational study using structural equation modeling (SEM). A convenience sampling method was used. The participants consisted of a sample of 410 students (209 females) from Hormozgan and Shiraz Universities in the academic year 2022–2023. The mean age of participants was 22.35 (SD= 3.66, range 18-46). There were

311 undergraduate students (75.9%) and 115 graduate students (24.1%). The approval to conduct the study was obtained by the National Research Ethics Committee of Iran. All participants provided written and informed consent. It was explained that participation is voluntary and confidentiality is guaranteed. The data were analyzed by using SPSS Version 24.0 software and Smart PLS 3.0 software. To evaluate the structural model, the coefficient of determination (R^2), Path coefficient (β) and T-statistic value, Effect size (f^2), and the Predictive relevance of the model (Q^2) were calculated.

Instruments

The Resilience Scale (RS-14): The RS-14 scale (Wagnild, 2009) was used to assess the participants' resilience. The RS-14 consists of 14 items rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores revealed stronger resilience. Results indicated acceptable reliability of the scale (Wagnild, 2009). The Persian version of the RS-14 scale was assessed by Hashemi et al. (2018). The Cronbach alpha of the overall scale was found 0.68. In the current study, the reliability of this scale was obtained as 0.82.

Measure of Happiness Questionnaire (MH): Participants completed the Persian version of the MH (Rizzato et al., 2022; validated by Tavoosi et al., in press). It is a 14-item questionnaire rated on a ten-point Likert scale from 1 (*not at all*) to 10 (*very, very much*). The MH has five subscales: Psychophysics Status, Financial Status, Relational Private Sphere, Socio-Relational Sphere, and Life Perspective. Rizzato et al. (2022) found adequate internal consistency for the overall scale and its subscales ranging from 0.61 to 0.85. The Persian version of the MH revealed acceptable reliability (0.70-0.91). In this study, The Cronbach alpha of the overall scale was 0.86.

Purpose in Life Test-Short Form (PIL-SF): To assess the participants' purpose in life, the Persian version of the Purpose in Life Test-Short Form (PIL-SF; Schulenberg et al., 2011; Tavoosi et al., in press). The PIL-SF includes a 4-item scale designed as a seven-point Likert scale. The internal consistency reliability of the scale was 0.84 (Schulenberg et al., 2011). The reliability of the scale was 0.89 in the current study.

sessions.

Results

Table 1 presents the mean, standard deviation, skewness, kurtosis coefficients of variables, and the correlation between variables. As it was shown in Table 1, skewness and kurtosis coefficients show that the distribution of the studied variables is normal. The correlation coefficient between resilience and happiness is 0.56; between resilience and purpose in life is 0.63; and purpose in life and happiness is 0.58; all are significant at the 0.01 level (see Table 1).

Table 1. The study measures' descriptive statistics and correlation between variables.

Variables	1	2	3	Mean	SD	Skewness	Kurtosis
1.Resilience	1			54.07	11.10	-0.39	0.02
2.Purpose in Life	0.63**	1		15.05	3.02	-0.61	-0.28
3.Happiness	0.58**	0.56**	1	54.07	6.98	-.05	0.01

Structural model fit. The structural model fit is evaluated using z-statistics, the coefficient of determination (R^2), Path coefficient (β) and T-statistic value, Effect size (f^2), and the Predictive relevance of the model (Q^2).

First, the z statistic was tested. If the t statistic is greater than 1.96, it indicates the significance and accuracy of the relationship at the 95% confidence level. As it is presented in Table 2, the significance values of all paths were greater than 1.96 suggesting that all paths are significant at the 95% confidence level.

Table 2. The z statistic of the paths.

Path	resilience-happiness	resilience- purpose in life	purpose in life- happiness
z Statistic	6.864	7.027	16.273

Then, the value of R^2 which evaluates the model's predictive accuracy and indicates how much of the overall effect and variance in the endogenous construct of the structural model is described was assessed. R^2 values of 0.49 and 0.49 are obtained for Happiness and Purpose in life, respectively, thus the coefficients are higher than the moderate value (i.e., equal to 0.33, Chin, 1998), representing the appropriate fit of the structural model of the research.

The next step involved using effects Sizes for path coefficients (f^2) to determine the effect of the independent on the dependent structure. Cohen (1988) suggested that the values of 0.02, 0.15, and

0.35 are considered weak, moderate, and strong effect sizes, respectively. As reported in Table 3, the effect size between resilience and purpose in life and happiness was almost moderate to strong and therefore the fit of the model is acceptable.

Table 3. The effects Sizes for path coefficients (f^2).

Path	resilience-happiness	resilience- purpose in life	purpose in life- happiness
f^2	.175	.905	.13

The Q^2 criteria were used to assess the predictive power of the model. According to Hensler et al. (2009), values of 0.02, 0.15, and 0.35 have been considered to indicate weak, moderate, and strong predictive power, respectively. The result indicates that the Q^2 value for Happiness is .15 and for Purpose in life is .25, suggesting the predictive relevance of the model.

Hypothesis testing. The structural model of the current research consists of three variables, resilience, purpose in life, and happiness. In this model, resilience is considered as an exogenous variable, purpose in life as a mediating variable, and happiness as an endogenous variable.

Results indicates significant direct effects of resilience on happiness ($\beta = .342$, $t = 6.864$, $p < .001$), $\beta = 0.511$), resilience on purpose in life ($\beta = .350$, $t = 7.027$, $p < .001$), and purpose in life on happiness ($\beta = .628$, $t = 16.273$, $p < .001$). As presented in Table 4, the results of the mediation analysis indicate that there is a significant indirect effect of resilience on happiness through the purpose in life (indirect effect = 0.294, bootstrap confidence interval [0.714, 1.433]). The total effect of resilience on happiness was significant ($\beta = .636$, $p < .001$).

Table 4. Mediation analysis results.

Total effect			Direct effect			Indirect Effect				
Coefficient s	T-value	p-value	Coefficient s	T-value	p-value	Coefficient s	SE	T-value	p-value	Percentile bootstrap
										lower upper
.636	13.985	.001	.342	6.864	.001	.294	.04	5.452	.001	.714 1.433

The results indicate that the relationship between resilience and happiness is partially mediated by the purpose in life.

Discussion

The current study aimed to investigate the associations between resilience, purpose in life, and happiness. Specifically, the potential mediating role of the purpose in life in the relationship between resilience and happiness.

Our findings indicated that there was a statistically significant positive relationship between resilience and happiness so resilience predicted happiness. This result is consistent with several studies (Hatami & Shekarchizadeh, 2022; Kaşıkçı & Peker, 2022; Saliminia et al., 2021). In explaining this finding, it can be noted that resilience is a key aspect of a healthy mind in dealing with stress (McEwen, 2016), as it enables better coping with stress, subsequently leading to happiness (Fletcher & Sarkar, 2013). Additionally, resilience may have a direct impact on health outcomes (Pinquart, 2009), resilience plays an important role in increasing positive psychological outcomes and reducing negative consequences (Ryff, 2013) and significantly affects overall happiness (Bajaj & Pande, 2016). Previous research has shown that resilience is a human strength that may have a significant impact on subjective well-being or happiness (Tan et al., 2021). One reason for this impact is that resilient individuals are more stable in unfavorable situations, cope better with daily problems, and have greater capacity to respond to life stresses (Mandleco & Perry, 2000), which can have a direct impact on the well-being and happiness of young people (Scoloveno, 2013). Sood (2013) suggests that those with higher levels of psychological resilience may show higher levels of happiness as they can cope with negative situations.

The second finding revealed a significant relationship between resilience and purpose in life. Results indicated that resilience was the predictor of purpose in life. This finding is in line with previous studies (such as Gaoxia Zhu & Anthony, 2022; Kashdan et al., 2022; Zhang et al., 2019). Resilience resulting from having a purposeful life enables young people to envision a positive future (Bronk et al., 2019). Studies have consistently found that having a purpose in life is related to resilience (Bronk et al., 2019). It seems that resilience may be one of the ways that individuals can navigate current challenges and have hope for a brighter future (Bronk et al., 2019). The finding that resilience has a high correlation with having a purpose in life may provide insight into how to strengthen goals in life (Fischer et al., 2023). A possible explanation for the relationship between resilience and purpose is that goal-oriented individuals are likely to persevere when faced

with difficulties (White, 2020). They also tend to find multiple ways to cope with obstacles and overcome challenges (Bronk et al., 2009; Hill et al., 2018).

Next, the results of the current study indicated that purpose in life was associated with happiness and had the power to predict it. This finding is consistent with the previous studies (e.g., Aghababaei & Błachnio, 2014; Crego et al., 2022; García-Alandete, 2015). Positive psychology research shows that happiness and purpose are essential for well-being (Schippers & Ziegler, 2019), and the relationship between meaning and purpose in life and well-being has been identified as a path to happiness (Park et al., 2009). Therefore, having a purpose in life can lead to happiness (Crego et al., 2021). Bronk et al. (2009) found that seeking purpose is associated with increased happiness from adolescence to adulthood. One component of this research was the impact of hope on facilitating the relationship between purpose and happiness in all three stages of life. Bronk et al. (2009) confirmed that achieving a goal is a key component of happiness, as found in this study. Purposeful living, a life guided by values and core beliefs, fulfills individuals' need for collaboration, leading to increased self-confidence and a sense of worthiness. As a result, this process leads to an increase in feelings of happiness (Ryff et al., 2016). The more goals one seeks in life, the more likely they are to experience greater happiness, and the more happiness one feels, the more encouraged they are to pursue larger purposes in life (Schippers & Ziegler, 2019).

Last, our finding revealed that purpose in life partially mediated the relationship between resilience and happiness. In explaining this finding, it can be said that with an increase in mental resilience, the level of happiness may also increase, and according to previous studies, research indicated that resilience directly predicts happiness (Benada & Chowdhr, 2017; Kaşıkçı & Peker, 2022). Resilience may also have an indirect effect on happiness, in a way that protective factors neutralize the impact of stress on health outcomes (Pinquart, 2009). One of the protective factors of resilience is stated to be having a purpose in life (Shetgiri et al., 2009). Additionally, Hurley and O'Reilly (2017) highlight finding a sense of purpose and reason for living as one important aspect of resilience. Seligman (2002) believes that true happiness only comes when an individual continuously engages in purposeful activities. Lyubomirsky et al. (2006) reported that having a purpose in life predicts predominant happiness (Crego et al., 2021).

There are a few limitations to the current study. First, this study is a non-experimental correlational study, so causal relationships between variables cannot be established. It is recommended to

examine the variable's relationships in experimental research. Second, the participants were all university students, future studies should include a more diverse sample to increase the generalizability. Third, self-report questionnaires were used in the present study which limits the generalizability of the research results. It is recommended that future studies use other data collection methods (e.g., interviews). Last, the non-probability sampling method was used in the present study. In future studies, the researcher randomly selects participants to increase the accuracy of the results and generalizability.

Despite the aforementioned limitations, to date, the current study tries to make a contribution to previous literature by considering purpose in life as a possible mediating variable in the associations between resilience and happiness. According to previous studies, it can be stated that resilience can influence happiness through having a purpose in life. Therefore, the findings of this research suggest that individuals with higher resilience have a purpose in their lives, and having a purpose in life can lead to an increase in psychological well-being in a way that individuals with a purpose in life report higher levels of happiness. The findings provide evidence for the important role of resilience and having a purpose in life to experience a happier life, thus intervention programs focused on the increase in resilience and finding a purpose in life can contribute to increased happiness.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of University of Hormozgan. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection and analysis and contributed to the article and approved the submitted version.

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References

- Aghababaei, N., & Błachnio, A. (2014). Purpose in life mediates the relationship between religiosity and happiness: Evidence from Poland. *Mental Health, Religion & Culture*, 17(8), 827-831.
- Alizadeh-Navaei, R., & Hosseini, S. H. (2014). Mental health status of Iranian students until 2011: A systematic review. *Clinical Excellence*, 2(1), 1-10.
- Arnett, J. J. (2011). New horizons in research on emerging and young adulthood. In *Early adulthood in a family context* (pp. 231-244). New York, NY: Springer New York.
- Bachem, R., Makhshvili, N., Maercker, A., Javakhishvili, J. D., Aeschlimann, A., Pilauri, K., ... & Shengelia, N. (2023). University students' life stressors and mental health in Georgia and German-speaking Switzerland: Exploring the role of fatalism, sense of coherence, cross-cultural coping, and help-seeking. *International Perspectives in Psychology: Research, Practice, Consultation*.
- Bajaj, B., & Pande, N. (2016). Mediating role of resilience in the impact of mindfulness on life satisfaction and affect as indices of subjective well-being. *Personality and individual differences*, 93, 63-67.
- Benada, N., & Chowdhr, R. (2017). A correlational study of happiness, resilience and mindfulness among nursing student. *Indian Journal of Positive Psychology*, 8(2), 105-107.

- Brailovskaia, J., Schönfeld, P., Kochetkov, Y., & Margraf, J. (2019). What does migration mean to us? USA and Russia: Relationship between migration, resilience, social support, happiness, life satisfaction, depression, anxiety and stress. *Current Psychology*, 38, 421-431.
- Bronk, K. C., Baumsteiger, R., Mangan, S., Riches, B., Dubon, V., Benavides, C., & Bono, G. (2019). Fostering purpose among young adults: Effective online interventions. *Journal of Character Education*, 15(2), 21-38.
- Bronk, K.C., Hill, P.L., Lapsley, D.K., Talib, T.L., Finch, H. (2009). Purpose, hope, and life satisfaction in three age groups. *The Journal of Positive Psychology*, 4(6), 500-510.
- Crego, A., Yela, J. R., Gómez-Martínez, M. Á., Riesco-Matías, P., & Petisco-Rodríguez, C. (2021). Relationships between mindfulness, purpose in life, happiness, anxiety, and depression: Testing a mediation model in a sample of women. *International Journal of Environmental Research and Public Health*, 18(3), 925.
- Czyżowska, N. (2022). Identity Processing Style and Meaning in Life among Emerging Adults: Mediation Role of Commitment. *International Journal of Environmental Research and Public Health*, 19(11), 6585.
- Damon, W., Menon, J., & Bronk, K. C. (2003). development of purpose during adolescence. *Applied Developmental Science*, 7(3), 119-128.
- DeWitz, S. J., Woolsey, M. L., & Walsh, W. B. (2009). College student retention: An exploration of the relationship between self-efficacy beliefs and purpose in life among college students. *Journal of college student development*, 50(1), 19-34.
- Fergus, S. & Zimmerman, M.A. (2005) Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health*, 26, 399-419.
- Fischer, I. C., Feldman, D. B., Tsai, J., Harpaz-Rotem, I., Lucas, K. A., Schulenberg, S. E., & Pietrzak, R. H. (2023). Identifying significant correlates of purpose in life in older US military veterans: results from the national health and resilience in veterans' study. *International Psychogeriatrics*, 1-6.
- Fletcher, D., & Sarkar, M. (2013). Psychological resilience: a review and critique of definitions, concepts, and theory. *European Psychologist*, 18(1), 12-23.
- Frankl, V. E. (2010). *The feeling of meaninglessness: A challenge to psychotherapy and philosophy*. Milwaukee, WI: Marquette University Press.

- García-Alandete, J. (2015). Does meaning in life predict psychological well-being?. *The European Journal of Counselling Psychology*, 3(2), 89-98.
- Hashemi, S., Akbari, A., Abbasi-Asl, R., & Ardashiri Alashti, R. (2018). Study of Factor Structure and Psychometric Adequacy of Short Version of Resilience Scale (RS-14). *Journal of Modern Psychological Researches*, 13(51), 251-272.
- Hatami, S., & Shekarchizadeh, H. (2022). Relationship between spiritual health, resilience, and happiness among a group of dental students: a cross-sectional study with structural equation modeling method. *BMC Medical Education*, 22(1), 1-8.
- Hill, P. L., & Turiano, N. (2014). Purpose in life as a predictor of mortality across adulthood. *Psychological Science*, 25, 1482_1486.
- Hill, P. L., Turiano, N. A., & Burrow, A. L. (2018). Early life adversity as a predictor of sense of purpose during adulthood. *International Journal of Behavioral Development*, 42(1), 143–147. <https://doi.org/10.1177/0165025416681537>
- Hill, P., Burrow, A., & Bronk, K. C. (2014). Persevering with positivity and purpose: An examination of purpose commitment and positive affect as predictors of grit. *Journal of Happiness Studies*.
- Hurley, D. J., & O'Reilly, R. L. (2017). Resilience, mental health and assertive community treatment. *Social Work in Mental Health*, 15(6), 730-748.
- Karris Bachik, M. A., Carey, G., & Craighead, W. E. (2021). VIA character strengths among US college students and their associations with happiness, well-being, resiliency, academic success and psychopathology. *The Journal of Positive Psychology*, 16(4), 512-525.
- Karyotaki, E., Cuijpers, P., Albor, Y., Alonso, J., Auerbach, R. P., Bantjes, J., ... & Kessler, R. C. (2020). Sources of stress and their associations with mental disorders among college students: results of the world health organization world mental health surveys international college student initiative. *Frontiers in Psychology*, 11, 1759.
- Kashdan, T. B., McKnight, P. E., & Goodman, F. R. (2022). Evolving positive psychology: A blueprint for advancing the study of purpose in life, psychological strengths, and resilience. *The Journal of Positive Psychology*, 17(2), 210-218.

- Kosine, N. R., Steger, M. R., & Duncan, S. (2008). Purpose-centered career development: A strengths-based approach to finding meaning and purpose in careers. *Professional School Counseling*, 72, 133–135.
- Lukas, E., & Hirsch, B. Z. (2002). Logotherapy. In F. W. Kaslow (Ed.), *Comprehensive handbook of psychotherapy: Interpersonal/humanistic/existential*, Vol. 3, pp. 333–356). John Wiley & Sons Inc.
- Lyubomirsky, S., Tkach, C., & DiMatteo, M. R. (2006). What are the differences between happiness and self-esteem? *Social Indicators Research*, 78, 363-404.
- Mandleco B. L., & Perry J. C. (2000). An organizational framework for conceptualizing resilience in children. *Journal of Child and Adolescent Psychiatric Nursing*, 13(3), 99–111.
- Mayseless, O., & Keren, E. (2014). Finding a meaningful life as a developmental task in emerging adulthood: The domains of love and work across cultures. *Emerging Adulthood*, 2(1), 63-73.
- McEwen, B. S. (2016). In pursuit of resilience: stress, epigenetics, and brain plasticity. *Annals of the New York Academy of Sciences*, 1373(1), 56-64.
- McKnight, P. E., & Kashdan, T. B. (2009). Purpose in life as a system that creates and sustains health and well-being: An integrative, testable theory. *Review of general Psychology*, 13(3), 242-251.
- Naglieri, J. A., LeBuffe, P. A., & Ross, K. M. (2012). Measuring resilience in children: From theory to practice. In *Handbook of resilience in children* (pp. 241-259). Boston, MA: Springer US.
- Ostafin, B. D., & Proulx, T. (2020). Meaning in life and resilience to stressors. *Anxiety, Stress, & Coping*, 33(6), 603-622.
- Park, N., Park, M., & Peterson, C. (2010). When is the search for meaning related to life satisfaction?. *Applied Psychology: Health and Well-Being*, 2(1), 1-13.
- Pfund, G. N., Bono, T. J., & Hill, P. L. (2022). Purpose as a predictor of satisfaction across relationship domains during the first semester of university. *Journal of Social and Personal Relationships*, 39(3), 570-591.
- Pinquart, M. (2009). Moderating effects of dispositional resilience on associations between hassles and psychological distress. *Journal of applied Developmental psychology*, 30(1), 53-60.

- Pourkord, M., Mirderikvand, F., & Karami, A. (2020). Predicting resilience in students based on happiness, attachment style, and religious attitude. *Health Spiritual and Medical Ethics*, 7(2), 27-34.
- Rizzato, M., Di Dio, C., Miraglia, L., Sam, C., D'Anzi, S., Antonelli, M., & Donelli, D. (2022). Are You Happy? A Validation Study of a Tool Measuring Happiness. *Behavioral Sciences*, 12(8), 295.
- Ryff, C. D. (2013). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics*, 83, 10–28.
- Ryff, C. D., Heller, A. S., Schaefer, S. M., Van Reekum, C., & Davidson, R. J. (2016). Purposeful engagement, healthy aging, and the brain. *Current behavioral neuroscience reports*, 3, 318-327.
- Saliminia, N., Emamipoor, S., Farzad, V., & Koochakentazar, R. (2021). The Mediating Role of Resilience in Explaining the Happiness Model Based on Spiritual Intelligence and the Quality of Interpersonal Relationships in Students. *Family and Health*, 11((Adolescences)), 73-88.
- Schippers, M. C., & Ziegler, N. (2019). Life crafting as a way to find purpose and meaning in life. *Frontiers in Psychology*, 10, 2778.
- Schwarzer, R., & Warner, L. M. (2012). Perceived self-efficacy and its relationship to resilience. In *Resilience in children, adolescents, and adults: Translating research into practice* (pp. 139-150). New York, NY: Springer New York.
- Scoloveno, R. L. (2013). An investigation of a theoretical model of health-related outcomes of resilience in middle adolescents. Rutgers The State University of New Jersey, Graduate School-Newark.
- Sharma, G., & De Alba, E. (2018). Sense of purpose among female students belonging to minority ethnic and Buddhist backgrounds. *Journal of College and Character*, 19(2), 137-151.
- Sharma, G., & Yukhymenko-Lescroart, M. A. (2022). Life purpose as a predictor of resilience and persistence in college students during the COVID-19 pandemic. *Journal of College Student Retention: Research, Theory & Practice*, 15210251221076828.
- Sharma, G., Yukhymenko-Lescroart, M. A., & Scarton, C. (2021). Purpose and career development: Implications for career counseling and counselor education. *International journal for educational and vocational guidance*, 1-17.

- Shetgiri, R., Kataoka, S. H., Ryan, G. W., Miller Askew, L., Chung, P. J., & Schuster, M. A. (2009). Risk and resilience in Latinos: A community-based participatory research study. *American Journal of Preventive Medicine*, 37(6, Suppl. 1), S217–S224. doi:10.1016/j.amepre.2009.08.00
- Sood, S. (2013). Happiness as mediator between resiliency and mental health in university students. *Indian Journal of Health and Well-being*, 4(2), 252-255.
- Tan, C. Y., Chuah, C. Q., Lee, S. T., & Tan, C. S. (2021). Being creative makes you happier: The positive effect of creativity on subjective well-being. *International Journal of Environmental Research and Public Health*, 18(14), 7244.
- Vaccaro, A., Kimball, E. W., Moore, A., Newman, B. M., & Troiano, P. F. (2018). Narrating the self: A grounded theory model of emerging purpose for college students with disabilities. *Journal of College Student Development*, 59(1), 37-54.
- Wagnild G. A review of the Resilience Scale. *J Nurs Meas*. 2009;17(2):105-13. doi: 10.1891/1061-3749.17.2.105. PMID: 19711709.
- White, A. E. (2020). Purpose as a powerful resource in the time of COVID-19. *Journal of Humanistic Psychology*, 60(5), 682-689.
- Yukhymenko-Lescroart, M. A., & Sharma, G. (2020). Examining the factor structure of the revised sense of purpose scale (SOPS-2) with adults. *Applied Research in Quality of Life*, 15, 1203-1222.
- Zare, N., Parvareh, M., Noori, B., & Namdari, M. (2016). Mental health status of Iranian university students using the GHQ-28: a meta-analysis. *Scientific Journal of Kurdistan University of Medical Sciences*, 21(4), 1-16.
- Zhang, Q., Zhao, H., & Zheng, Y. (2019). Effectiveness of mindfulness-based stress reduction (MBSR) on symptom variables and health-related quality of life in breast cancer patients—a systematic review and meta-analysis. *Supportive Care in Cancer*, 27, 771-781.