

Resilience Mediates the Relationship between Hope and Subjective Well-being: Applying of Broaden-and-Build Theory of Positive Emotion in the Chinese Cultural Context

Received: June 6, 2022

Revised: June 23, 2022

Accepted: June 25, 2022

Mofang Cheng^{1*} Shengen Li² Yufen Wei³

¹⁻³Center of Thailand Studies, Weinan Normal University, China

*mofang_006@126.com

Abstract

The Broaden-and-Build theory emphasized the significance of positive emotion which facilitates to construct the personal resources and flourishing. Based on the theory, this study examines the mediating role of resilience played in the relationship between hope and subjective well-being. Participants include 337 undergraduates recruited from X universities of ShaanXi Province in China. Data is collected by using the Satisfaction with Life Scale, the Dispositional Hope Scale and the Brief Resilience Scale. The results analyzed by SPSS indicated that resilience has no role of mediation between hope and subjective well-being. And hope was a negative predictor to subjective well-being.

Keywords: Subjective Well-Being, Hope, Resilience, Broaden-and-Build Theory

1. Introduction

Subjective well-being has been widely studied in the domain of educational psychology in the recent years. The research of it has been explored in many domains with a rising tendency of positive psychology which mainly focused on the human strength, virtues, best qualities and flourishing in life (Seligman, 2002). Subjective well-being is termed as human's feeling and cognition of their lives, and generally considered as a reflection of one's satisfaction with life (Diener, 2000). It is characterized by poly-dimensional conceptions which regards global assessment of individual's own life in light of cognitive aspects embracing general life satisfaction and affective aspects concerning to the presence of pleasant affect and absence unpleasant affect (Seydi, 2016).

The variables in the domain of gender, social rank, parents raising, and income are the contributors to subjective well-being, (Vera-Villaruel et al., 2012). The other factors such as positive emotions and negative emotions predicates the well-being (Avey et al., 2011). The consider of subjective well-being is investigated in terms of identity speculations, social differing qualities and person variables (Diener et al., 2002). Fredrickson (2001), in any case, who proposed the broaden-and-build hypothesis of positive feelings as a structure for considering subjective well-being and flourishing, puts forward that encounter of positive feelings can broaden people's thought-action, which by turns encourages to set up their enduring individual assets, from physical and mental assets to social and mental assets (Fredrickson, 2001). To predicating the broaden-and-build hypothesis, she comes up with 10 positive emotions that made a difference to set up the strong assets.

One of the ten positive emotions is Hope. Whereas most positive emotions arise in circumstances appraised as safe, hope is exception. Hope occurs in bad situation in which people hunger for better (Lazarus, 1991). Creating the urge to draw on one's own capabilities,

it builds continuous resources containing optimism and resilience to adversity (Fredrickson, 2013). The daily experiences of positive emotions positively fuel to trait resilience, which are by turns related to improving life satisfaction (Cohn et al., 2009). Be in accordance with this view, studies have shown that people who experience positive emotions during mourning have a tendency to design plans and goals that will be the predictor to greater psychological well-being (Folkman, 1997). Accordingly, based on the preliminary evidence, Fredrickson (2001) concludes that positive emotions build psychological resiliency and triggers upwards spirals towards improved emotional well-being.

The broaden-and-build theory has been utilized in some domains of diverse culture. A little study associated with the theory has conducted in the Chinese college sample. Different from western contextualization, well-being is conceptualized differently in the context of China.

By employing the structure of broaden-build theory, the current study investigates the role that resilience plays between the hope and subjective well-being in the community of Chinese college as an empirical study, which will enrich the construction of positive emotion in diverse culture and provide implications for the exploration of positive emotion from the oriental perspective.

2. Literature Review

2.1 Broaden-and-Build Theory

Fredrickson (2001) proposes the broaden-and-build hypothesis to show how good emotions might broaden the process in light of affections and cognition, idealizing individual activities. Happy emotions in individuals act as a fuel for delivering additional positive feelings, as well as strengthening resilience and life contentment (Cohn et al., 2009). In any event, negative emotions breed additional negative emotions, as well as a proclivity for unfavorable outcomes (Matthews & MacLeod, 2002). According to the notion, certain positive emotions can boost an individual's action and be good for changing behavior (Teidorlang et al., 2018), resulting in the development of personal competences such as competencies, assets, and inventiveness.

To be specific, Fredrickson (2005) explored that the adaptability fostered by positive emotions help individuals comprehensively develop their competencies to establish interpersonal connections. (Waugh & Fredrickson 2006). Related studies have indicates that positive emotions is beneficial for solving problems, keeping long-term memory, and going up productivity in the means of integrating massive information (Talarico et al., 2009). Besides, increasing positive emotions produce patterns of thought featured by adaptation, creation and integration (Isen, 1987). By fostering positive emotions, people will accept reactions and criticisms given by others (Raghunathan & Trope, 2002) and actively be involved in problems solving (Kahn & Isen, 1993). Frisch (2000) points out that individuals filled with happiness or thriving, will be content with life, be more resilient to stress, be skilled at problem-solving, and be excellent at job working. The broaden-and-build theory widens a new view to explore the positive psychology and develop thought and behavior in a well-rounded way. It is employed to indicate that positive emotion counts then predicting the well-being of finance in the context of United States (Enete et al., 2022)

2.2 Subjective Well-Being

In the field of psychology, subjective well-being has a lengthy history. In a nutshell, it is a person's self-described state of happiness, and it is frequently viewed as a person's assessment of his or her quality of life (Zubin & Spring, 1997). Be Subjective well-being, also known as "happiness," reflects an individual's cognitive and emotional judgements of life fulfillment

(Diener, 2002). Whereas passionate appraisal is focused on feelings, cognitive appraisal is based on a person's overall evaluation of their life. Most analysts agree that life fulfillment is a consistent component of subjective well-being that is likely to remain consistent across time (Diene et al., 2006). Subjective well-being extends individuals' views and let them construct more assets. Hence, it makes a difference to clarify why people perform well regardless of the diffuseness of stressors in life. It is worthy to be explored further since it not only optimizes human's cognition and affection but helps individuals broaden more resources around them in a positive way.

2.3 Hope

As a mental trait, hope is the cognitive preparation that allows people to have a positive desire to attain what they want and to believe that their goals can be achieved (Seydi, 2016). It's been described as "a cognition based on a sense of successful agency (goal-directed determination) and routes (planning to achieve goals)" (Snyder et al., 1991). In this way, hope is composed of three components: (a) objectives which mention anything that an person includes a wish to urge or reach, (b) pathway considering which refers to creating diverse or conceivable ways to realize these objectives and (c) autonomous considering that alludes propensity to create and keep motivation to fulfill one's wanted objectives, and having vitality to utilize pathways to achieve objectives (Snyder, 2002).

Snyder (2002) suggests that hope is a key component for those who are unhappy, and that it is linked to psychological well-being and physical health. Hope has also been linked to life satisfaction, positive affection, negative affect, and happiness in recent studies (Demirl et al., 2015). Furthermore, hope was found to be positively related to increased self-esteem, optimistic notions, optimism, psychological well-being, physical health, and resilience, while being negatively related to depression (Karairmak, 2007; Snyder, 2002; Snyder & McCullough, 2000). As a result, hope is significantly linked with numerous elements in the diverse culture as a predictor. It is investigated as a predictor of life happiness in a group of Chinese college freshmen who had experienced intimate violence (Li et al., 2021).

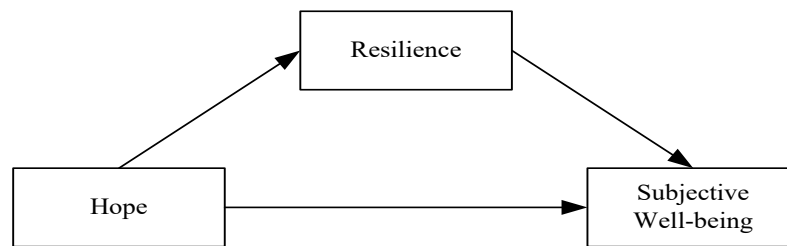
2.4 Resilience

Psychological resilience has been the concentration for many researchers to explore since it is an interesting domain for conducting study. It can be termed in diverse way. It can be clarified as the method of effectively adjusting when confronting with troublesome or debilitating circumstances (Tugade, 2004).

Based on these definitions, Resilience urged people to live boldly in the face of adversity. It addresses dealing with adversity (Dumont & Provost, 1999) as well as achieving life satisfaction (Cohn et al., 2009). Yildirim (2020) investigated whether there is a link between resiliency and subjective well-being in Turkish college students. As a result, resilience may play an important role in the influence of hope on subjective well-being.

The current applies the framework of broaden-and-build theory to examine the role that resilience plays between hope and subjective well-being in the context of Chinese college. The hypothesized framework of research is shown as below (Figure 1). Three variables are chosen from the Broaden-and-Build Theory of Positive Emotion. According to the upward spiral created by Fredrickson and Cohn (2008), positive emotion can be broaden to build resilience, interpersonal support and finally increase one's flourishing and well-being.

Figure 1
Hypothesized Mediated Model



Based on the mediated model, the hypothesis are proposed:

H1: Hope will significantly predict subjective well-being.

H2: Hope will significantly predict resilience.

H3: Resilience will mediate the relationship between hope and subjective well-being.

3. Methodology

3.1 Procedure

The data collection instruments are assigned to students in different lessons and students are notified that participation is voluntary. The items of scale are accomplished by 450 college undergraduates but the responses of 17 participants are excluded as their questions are remain unanswered. The samples are collected through internet, and data analysis are processed by software SPSS22.0.

3.2 Participants

The survey is conducted with 337(285 female, 52 male) university students in Shaan'Xi Province, a region located in the west region of China, as ShaanXi is very prominent in its education performance in China. Participants are full-time undergraduate students from the four grades of higher education. The questionnaires are administered to students through online. The participants are not given any reward. The questionnaires are remain anonymous.

Within the study group, 3% of participants are students of the Faculty of Science and Engineer, 84.6% attend the Faculty of Economics and Humanity, 13.9% of Faculty of Arts & Sports. 70% of participants are freshmen (first year), 11.9% the second year, 17.8% the third year and 3% are fourth year students. (As shown in Table 1&2 below)

Table 1

The Percentage That Each Grade Takes

Grade	Frequency	Percentage (%)
First year	236	70
Second year	40	11.9
Third year	60	17.8
Fourth year	1	3
Total	337	100

Table 2
The Percentage That Each Faculties & Majors Takes

Faculty	Frequency	Percentage (%)
Science & Engineering	1	3
Humanism and Economics	285	84.6
Arts and Sports	47	13.9
Others	4	1.2
Total	337	100

3.3 Instruments

3.3.1 Subjective Well-Being

Subjective well-being is assessed by Positive and Negative Affect Schedule (Watson et al., 1988) and Satisfaction with Life Scale (Diener et al., 1985). The PANAS is developed to evaluate affective elements of the subjective well-being. The PANAS is composed of two 10-item sub-scales; positive affect (PA) and negative affect (NA), appraised on a 5-point Likert scale (1 = very slightly or not at all to, 5 = extremely). The Chinese version of PANAS is adopted by Qiu (2008), with Cronbach alpha coefficient 0.85 and 0.84 for PA and NA, separately. In the present study, the Cronbach alpha is 0.93 and 0.91 for PA and NA.

The SWLS is planned to assess cognitive development of the subjective well-being. The SWLS comprise of five items (e.g. If I could live my life over, I would change almost nothing). Reactions are made on a 7-point Likert scale (1 = strongly disagree and 6 = strongly agree). Higher scores show more fulfillment with life. The Chinese form of SWLS is embraced by Wang (2015) with worthy reliability (Cronbach alpha: 0.87). The Cronbach alpha of current study is 0.81.

3.3.2 Hope

Hope is assessed by Dispositional Hope Scale (Snyder et al., 1991) which is formulated to assess an individual's common or characteristic level of hope. The DHS could be a 12-item containing four items survey that produces scores based on two sub-scales: agency and pathway. Reactions are appraised on an 8-point Likert scale. Higher scores represent more hope. The Chinese version of DHS was embraced by Ren (2009) with the worthy reliability (Cronbach alpha: 0.80). As for this study, the DHS has worthy Cronbach alphas: 0.77 (0.76, 0.70, for organization and pathway separately).

3.3.3 Resilience

Resilience is evaluated by Brief Versatility Scale (BRS; Smith et al., 2008) which is created to assess the capacity to get over from stress. BRS is a 6 items scale and Reactions are planned based on a 5-point Likert scale. Higher scores indicate more prominent resiliency. The items of the scale are translated into Chinese. Since the deciphered surveys initially have been conducted in a non-English speaking country, back translation is done to create beyond any doubt that the interpretation still hold the initial meaning. The BRS of current study has a worthy Cronbach alpha 0.64.

3.4 Confirmatory Factor Analysis (CFA)

Before the formal testing, the confirmatory factor analysis (CFA) is available. According to result of factor analysis, some factors of DHS have been deleted as the factor loading they own is lower. Being adjusted, the Cronbach of DHS is 0.77 (6 items), BRS 0.64, 0.93 and 0.91 for PA and NA respectively and SWLS 0.81.

4. Research Results

4.1 Correlation and Descriptive Statistics of Variables

The mean score of three variables is 67.40, 44.44, and 22.37 respectively. (SD=11.82, 8.15, and 4.93) Correlation analysis is conducted in order to decide the relationships between the research variables. Table 3 shows descriptive statistics for the variables. As seen in Table 3, three variables have correlated each other. It is found that hope negatively predicts subjective well-being. There is a positive relationship between hope and resilience. Resilience can negatively predict subjective well-being. The result provides a solid foundation for the following mediation test.

Tables 3

Interco-Relation and Descriptive Statistics of all Variables in Study

Measure	1	2	3	Mean	SD	α
1. Subjective well-being	---	-.331**	-.1.63**	67.40	11.82	0.81
2. Hope	---	---	.641**	44.44	8.51	0.77
3. Resilience	---	---	---	22.37	4.93	0.64

(Note. $N=337$, ** $P<0.01$.)

4.2 Mediation Test

As is indicated in Table 4, the result of mediation test finds that the mediation affects is not significant ($B=-0.085$, $T=1.262$, $P=0.208$). In addition, 95% confidence interval (CI) = $-.168-.549$. Therefore, the mediation of resilience is not significant in the test. The relationship between hope and subjective well-being is in negative significance ($B=-0.385$, $T=-0.574$, $P<0.001$). Hope can positively predicts resilience ($B=.641$, $T=15.305$, $P<0.001$). Hope explains 44% ($R^2=0.44$) variance of resilience and 11 % ($R^2=0.11$) variance of subjective well-being.

Table 4

Result of Regression and Mediation Test

	R^2	(ad) R^2	F	B	T
Hope to SWB	.110	.107	41.529***	-.331	-.423***
Hope to Resilience	.441	.410	234.23***	.641	15.305***
Hope to Resilience to SWB	.441	.109	41.462***	-.385 -.085	-.547*** 1.262

4.3 Discussion

According to the previous study, hope is an important predictor of subjective well-being. Research has built up that hope directly related with positive results, adjustment and subjective well-being (Snyder, 2002). A few studies has explored that hope positively predicates well-being and it can indicate for subjective well-being such as positive affect, negative affect, forgiveness, quality of life and prospering (Demirli et al., 2015).

But contrary to the previous studies, the current study finds that hope can negatively

predict subjective well-being, greatly different from the conclusion of the previous study. This is because the uniqueness embodied in the Chinese social and cultural contextualization leads students in China to go through great stress (Chen, 2018). Rooted in Confucian culture, Chinese society is featured by putting an exceptionally emphasis on education; consequently, students are instructed to compete for high scores in various tests in order to be enrolled into top universities (Feng, 1995). Affected by this culture, the students may take a lots pressure during the daily study life in university because they not only want to acquire excellent grades in academy but also prepare for the fierce completion in all affairs. They have plenty expectations and hopes for the future, but in turn they suffer less satisfaction about the university lives with intensive competition.

The current study also indicates that the resilience plays no role of mediation between hope and subjective well-being. One factor that should be discussed in defining resilience outcomes is culture, which is often overlooked (Rigsby,1994). The Chinese culture tends to place greater emphasis on harmony and moderation, so the resilience is not statistically significant.

4.4 Implications

According to the result of the current study, there is a need to further explore the reasons that cause the negative relationship between hope and subjective well-being in the different context of China. And future research should proceed to conduct more empirical studies by using other positive variables under the framework of broaden-and-built theory in the Chinese community.

5. Conclusion

The study has explored that the meditation role of resilience between hope and subjective well-being was not significant in a sample of community of Chinese university undergraduates. Considering that positive psychology was basically started for deciding the components which may contribute to subjective well-being, the present study has offered more understandings enlightening for both researchers and practitioners. The way Chinese pursue happiness is different from that in the West. The theory initially proposed in the western culture should be empirically verified in the different contextualization to enrich the theoretical framework.

6. Acknowledgement

The authors appreciate the sincere support of the participant of Weinan Normal University for their active involvements.

7. Funding

The research was funded by Shaanxi Association of Higher Education(Higher Education Science Research Project, Project Number: XGH21213); Research of the 14th Five-year Plan of Education Science in Shaanxi Province , Project Number:SGH21Y0208 ; and Educational Science Research Project of Weinan Normal University, Project Number:2019JYKX014.

References

- Avey, J., Wernsing, T., & Mhatre, K. (2011). A longitudinal analysis of positive psychological constructs and emotions on stress, anxiety and well-being. *Journal of Leadership and Organizational Studies*, 18(2), 216–228.
<https://doi.org/10.1177/1548051810397368>
- Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009).

- Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion*, 9(3), 361–368. <https://doi.org/10.1037/a0015952>
- Chen, J. (2018). The subjective well-being of academic gifted students in the Chinese cultural context. *School Psychology International*, 39(3), 291–311. <https://doi.org/10.1177/0143034318773788>
- Demirli, A., Türkmen, M., & Arık, R. S. (2015). Investigation of dispositional and state hope levels' relations with student subjective well-being. *Social Indicators Research*, 120(2), 601–613. <https://doi.org/10.1007/S11205-014-0607-9>
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34–43. <https://doi.org/10.1037/0003-066X.55.1.34>
- Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49 (1), 71–5. https://doi.org/10.1207/S15327752JPA4901_13
- Diener, E., Lucas, R. E., & Oishi, S. (2002). Subjective well-being. In C. R. Snyder ve, & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 63–73). Oxford University Press.
- Diener, E., Lucas, R.E., & Scollon., C.N. (2006). Beyond the hedonic treadmill: revising the adaptation theory of well-being. *The American psychologist*, 61 (4), 305–14. <https://doi.org/10.1037/0003-066X.61.4.305>
- Dumont, M., & Provost, M.A. (1999). Resilience in Adolescents: Protective Role of Social Support, Coping Strategies, Self-Esteem, and Social Activities on Experience of Stress and Depression. *Journal of Youth and Adolescence*, 28, 343–363. <https://doi.org/10.1023/A:1021637011732>
- Enete, S., Seay, M., Asebedo, S. D., Wang, D., & McCoy, M. (2022). Personal Emotions and Family Financial Well-Being: Applying the Broaden and Build Theory. *Journal of Financial Counseling and Planning*, 33, 79 - 96. <https://doi.org.10.1177/08862605211005131>
- Feng, Y. (1995). From the imperial examination to the national college entrance examination: The dynamics of political centralism in China's educational enterprise. *The Journal of Contemporary China*, 4(8), 28–56. <https://doi.org/10.1080/10670569508724213>
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226. <https://doi.org/10.1037/0003-066X.56.3.218>
- Fredrickson, B. L. (2013). *Love 2.0*. Hudson Street Press.
- Fredrickson, B. L., & Cohn, M. A. (2008). Positive emotions. In M. Lewis, J. Haviland-Jones & L. F. Barrett (Eds.), *Handbook of Emotions*. (pp.777-796). Guilford Press.
- Frisch, M.B. (2000). Improving mental and physical health care through Quality of Life Therapy and assessment. *Advances in Quality of Life Theory and Research*, 4, 207–241. https://doi.org/10.1007/978-94-011-4291-5_10
- Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social science & medicine*, 45(8), 1207–1221. [https://doi.org/10.1016/S0277-9536\(97\)00040-3](https://doi.org/10.1016/S0277-9536(97)00040-3)
- Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology*, 52(6), 1122–1131. <https://doi.org/10.1037/0022-3514.52.6.1122>
- Kahn, B. E., & Isen, A. M. (1993). The influence of positive affect on variety seeking among safe, enjoyable products. *Journal of Consumer Research*, 20(2), 257–270.

- <https://doi.org/10.1086/209347>
- Karairmak, Ö. (2007). *Investigation of Personal Qualities Contributing to Psychological Resilience among Earthquake Survivors: A Model Testing Study*. [Doctorate Degree Thesis, State University of Middle east Technical University]. <http://etd.lib.metu.edu.tr/upload/3/12608420/index.pdf>
- Lazarus, R. S. (1991). *Emotion and adaptation*. Oxford University Press. <https://doi.org/10.5860/choice.30-0601>
- Li, M., Gu, Y., Ma, Y., Liu, M., & Tang, Y. (2021). Positive Emotions, Hope, and Life Satisfaction in Chinese College Students: How Useful is the Broaden-and-Build Model in Studying Well-being in Victims of Intimate Partner Violence? *Journal of interpersonal violence*. 1-10. <http://doi.org/10.1177/08862605211005131>
- Lyngdoh, T., Liu, A.H., & Sridhar, G. (2018). Applying positive psychology to selling behaviors: A moderated-mediation analysis integrating subjective well-being, coping and organizational identity. *Journal of Business Research*. 92, 142-153. <https://doi.org/10.1016/j.jbusres.2018.07.020>
- Mathews, A.M., & MacLeod, C. (2002). Induced processing biases have causal effects on anxiety. *Cognition and Emotion*, 16, 331 - 354. <https://doi.org/10.1080/02699930143000518>
- Qiu, L., Zheng, X., & Wang, Y. (2008) Revision of the positive affect and negative affect scale. *Applied Psychology*, 14(3),249-254.
- Raghunathan, R., & Trope, Y. (2002). Walking the tightrope between feeling good and being accurate: mood as a resource in processing persuasive messages. *Journal of personality and social psychology*, 83(3), 510-25. <https://doi.org/10.1037/0022-3514.83.3.510>
- Ren, J. (2006). *Positive Psychology*. Shanghai Educational Publishing House.
- Rigsby, L. C. (1994). The Americanization of resilience: Deconstructing research practice. In M. Wang & E. GORDON (Eds.), *Educational resilience in inner-city America: Challenges and prospects*. (pp.85-94). Lawrence Erlbaum.
- Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology*. (pp. 3–9). Oxford University Press.
- Seydi, A. S. (2016). Psychological vulnerability, resilience, and subjective well-being: The mediating role of hope. *Personality and Individual Differences*. 102, 68-73. <https://doi.org/10.1016/j.paid.2016.06.057>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200. <https://doi.org/10.1080/10705500802222972>
- Snyder, C. R. (2002). *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., 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>
- Snyder, C. R., & McCullough, M. E. (2000). A positive psychology field of dreams: “If you build it, they will come...”. *Journal of Social and Clinical Psychology*, 19(1), 151-160. <https://doi.org/10.1521/JSCP.2000.19.1.151>
- Talarico, J. M., Berntsen, D., & Rubin, D. C. (2009). Positive emotions enhance recall of peripheral details. *Cognition and Emotion*, 23(2), 380 - 398.

- <https://doi.org/10.1080/02699930801993999>
- Tugade, M. M., Fredrickson, B. L., & Barrett, L. F. (2004). Psychological resilience and positive emotional granularity: examining the benefits of positive emotions on coping and health. *Journal of personality*, 72 (6), 1161-90. <https://doi.org/10.1111/J.1467-6494.2004.00294.X>
- Vera-Villaruel, P., Urzua, A., Celis-Atenas, P. P. K., & Silva, J. (2012). Evaluation of subjective well-being: Analysis of the satisfaction with life scale in Chilean population. *Universitas Psychologica*, 11(3), 719–727. <https://doi.org/10.11144/JAVERIANA.UPSY11-3.ESWA>
- Wadlinger, H.A., & Isaacowitz, D.M. (2006). Positive mood broadens visual attention to positive stimuli. *Motivation and Emotion*, 30, 87-99. <https://doi.org/10.1007/S11031-006-9021-1>
- Wang, M., & Chang, C. (2015). A Study on Relationships of Health Promoting Lifestyle and Life Satisfaction: The Case of Vocational and Technological College Students in Chienkuo University Technology. [Paper presentation] International Conference on Communication, Health, Beauty and Innovation Education.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063. <https://doi.org/10.1037/0022-3514.54.6.1063>
- Waugh, C. E., & Fredrickson, B. L. (2006). Nice to know you: Positive emotions, self-other overlap, and complex understanding in the formation of a new relationship. *The Journal of Positive Psychology*, 1(2), 93–106. <https://doi.org/10.1080/17439760500510569>
- Yıldırım, M., & Çelik Tanrıverdi, F. (2021). Social Support, Resilience and Subjective Well-being in College Students. *Journal of Positive School Psychology*, 5(2), 127-135. <https://doi.org/10.47602/jpsp.v5i2.229>
- Zubin, J., & Spring, B. (1977). Vulnerability: A new view of schizophrenia. *Journal of Abnormal Psychology*, 86(2), 103. <https://doi.org/10.1037/0021-843X.86.2.103>

APPENDIX

Dispositional Hope Scale

1. I can think of many ways to get out of a jam.
2. I energetically pursue my goals.
3. I feel tired most of the time.
4. There are lots of ways around any problem.
5. I am easily downed in an argument.
6. I can think of many ways to get the things in life that are important to me.
7. I worry about my health.
8. Even when others get discouraged, I know I can find a way to solve the problem.
9. My past experiences have prepared me well for my future.
10. I've been pretty successful in life.
11. I usually find myself worrying about something.
12. I meet the goals that I set for myself.

Brief Resilience Scale (BRS)

1. I tend to bounce back quickly after hard times
2. I have a hard time making it through stressful events.
3. It does not take me long to recover from a stressful event.

4. It is hard for me to snap back when something bad happens.
5. I usually come through difficult times with little trouble.
6. I tend to take a long time to get over set-backs in my life.

PANAS Scale(descriptor)

1. Enthusiastic
2. Interested
3. Determined
4. Excited
5. Inspired
6. Alert
7. Active
8. Strong
9. Proud
10. Attentive
12. Afraid
13. Upset
14. Distressed
15. Jittery
16. Nervous
17. Ashamed
18. Guilty
19. Irritable
20. Hostile

Satisfaction with Life Scale

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing