

## **Development and Validation of Anila Psychological Capital Scale (APS) for Pakistani Adolescents**

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Current study was planned to construct a scale to measure psychological capital for Pakistani school adolescents. A sample of 400 adolescent (8<sup>th</sup> to 10<sup>th</sup> graders) was approached, through convenient sampling technique, from public sector schools of different districts. Study was conducted in four steps i.e. construct identification, item generation, item formulation and empirical item evaluation. Exploratory factor analysis by using principal component with Varimax rotation demonstrated four distinct factors including; resilience, self-efficacy, hope and optimism. Good alpha reliabilities were found and convergent validity has been ensured by examining correlation with Happiness Scale (Lyubomirsky & Lepper, 1999), Herth Hope Index (Herth, 1989), Life Orientation Test (Scheier, Carver, & Bridges, 1994), and generalized self-efficacy scale (Schwarzer & Matthias, 1993), whereas discriminant validity was computed by correlation with happiness scale and two subscales of i.e. extraversion and agreeableness of NEO-Five Factor Inventory (McCare & Costa, 2004). Limitations and suggestions have also been discussed.

*Keywords.* PsyCap, resilience, self-efficacy, hope, optimism

Positive Psychology is an emerging field that has become the part of psychological and social sciences, and it changed the unusual view of human nature and gave inspirational view to other characteristics of human being which have been ignored yet (Bright, Cameron & Caza 2006; Luthans, 2002a). The concept of psychological capital (PsyCap) has been considered important and central in positive psychology. Luthans and colleagues (Luthans, 2002; Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007) conceptually identified this concept as embracing of the four positive psychological possessions i.e. hope, optimism, efficacy, and resilience, which, when combined, can be

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empirically determined to be a second-order core construct (Luthans, Avolio, Avey, & Norman, 2007). Second order construct is such construct which shared variance between the four first-order constructs (hope, optimism, efficacy, and resilience).

Detailed definition of PsyCap is a positive psychological state of involvement of an individual that can be characterized by: (1) maintaining confidence (efficacy) to move on and having ability to do enough effort to accomplish goals and succeed in challenging tasks; (2) making a positive attribution (optimism) of achievement in the present moment and in the future; (3) deterministic toward goals and, when need, generating other pathways to goals (hope) in order to achieve them; and (4) when fenced by problems and adversity, coping and bouncing back and beyond all that (resilience) to attain success (Luthans et al. 2007).

The traditional use of term capital is mostly in economics and finance, but this term can also be used to represent the value of human resources (human capital) as well as for other concepts (e.g., intellectual capital, social capital, cultural capital). The term psychological capital is the representation of individual's potential, motivation that can be upswing through positive psychological constructs such as efficacy, optimism, hope, and resilience. Positive psychologist Csikszentmihalyi (as quoted in Kersting, 2003) viewed psychological capital as it is developed after an investment of psychic resources that results in obtaining experiential rewards from the present moment while also increasing the likelihood of future benefit.

Above discussion revealed the fact that PsyCap act like capital for humans which help them in every realm of life. Originally this concept was developed for organizational settings but it does not mean it is confined only to that particular setting as it has been earlier discussed that it is psychic capital of human being, that's why it can be used by every person in every setting of life. As the persons having high level of PsyCap will perceive the environment more challenging and focus on difficult side of life, and has the ability to recognise that challenging aspects having benefits such as enjoyment, learning, and personal growth for him and take that negative part as positive. Evidences provided by researchers also found people more adaptive to demands that they find challenging and difficult (Lepine, Podsakoff, & Lepine, 2005).

Individuals who are more optimistic have tendency to focus on the positive aspects linked with new and challenging tasks. In the similar manner, hope is linked with the salience of personal goals (hope-path) and with confidence they accomplish their goals which in turn improve

their life (hope-agency). Collectively, these factors propose that persons high in PsyCap will have more ability to withstand against stress and preserve their physical and psychological well-being in time of facing academic stress. These types of resilient adaptive personality and cognitive differences have been especially help adolescents to cope with stress and enhance their well-being.

A study was conducted by Riolli, Savicki, and Richards (2012) to explore the PsyCap as buffer against student stress. They found that PsyCap empower students with necessary mental health and help them to cope in critical situation and also act as a buffer against academic stress. It can be safe to conclude from the aforementioned discussion that PsyCap is also an important construct in the domain of education specifically for adolescent students. As it was discussed previously PsyCap has been particularly investigated in organizational setting, that's why the measurement already available for this construct is related to that particular organizational setting.

### **Measurements of PsyCap**

Measurements of PsyCap involves single measure of each construct i.e. to measure each concept under PsyCap construct most researcher used separate scale available to them. For example the most frequent used scales to measure hope are State Hope Scale of Snyder et al.(1996), The Adult Hope Scale (AHS; Snyder et al., 1991) and for optimism mostly used scale for research purpose is Life Orientation Test (LOT-R; Scheier et al., 1994). As for self-efficacy General Self-efficacy Scale by Schwartz and Mathias (1995) has been frequently used to measure self-efficacy. For resilience Wagnild and Young's (1993) 25-item measure, Block and Kremen's (1996) 14-items are most recurrent used measure of resilience. So there is a need to develop a scale for PsyCap which can be used to measure all variables of PsyCap and researchers don't need to bear the burden of individual scale.

Current study aimed to develop the valid and reliable measure of PsyCap for adolescence. The rationale behind the development of scale was that the already available measure for PsyCap that has been developed by Luthans and Youssef (2004) is only for organizational setting. Concept of PsyCap was conceived by Luthans and Youssef (2007) for organizational settings but it does not mean this concept is only confined to that particular setting instead this concept can be used broadly in diverse settings. Because it is the capital of human psyche and is important for every individual no matter from which setting he/she belongs.

There has been no existing scale to measure PsyCap in adolescents within indigenous context. It is therefore, present study has focused upon the domain of positive psychology with adolescents, which will be helpful to explore positive aspects among them. As for now the focus of most researchers is on adolescents' prevailing problematic behavior and on how to prevent negative outcomes associated with that behaviour, such as juvenile delinquency, eating disorders, academic problems, and negative thinking, rather than taking interest on their strong point, abilities and the positive thinking, such as happiness, life satisfaction, well-being (Huebner, 2004; Larson, 2000; Rich, 2003).

However, this point of view has been changing with growing body of research focusing on development of adolescents' strengths and abilities. This change in view is because of positive psychology which directed the attention of researchers toward promoting positive factors, rather than preventing negative outcomes, among adolescents (Chafouleas & Bray, 2004; Huebner, 2004; Hunter & Csikszentmihalyi, 2003; Larson, 2000; Pajares, 2001; Rich, 2003; Roberts, Brown, Johnson, & Reinke, 2002). Therefore this is the need of hour to explore positive constructs among adolescents and develop an indigenous scale of PsyCap for adolescents of Pakistan. In conclusion to the aforementioned discourse present study have set upon the following objectives:

1. To develop PsyCap scale for Pakistani adolescents.
2. To determine the psychometric properties of developed scales.

## Method

### Sample

Sample of study was embraced of adolescents ( $N = 400$ ) which was further divided in to 200 males and 200 females students of 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> class. Age range of adolescents was from 14 to 17 years ( $M = 15.53$ ,  $SD = 1.12$ ). Data were collected from public and private schools of rural and urban areas of Sargodha, Jhelum and Faisalabad districts. For the development of PsyCap Scale, study was conducted in following four steps.

**Step I: Construct identification.** The very 1<sup>st</sup> step in development of any scale is construct identification. In current study an indigenous PsyCap Scale was developed. PsyCap has four well-known constructs namely hope, resilience, self-efficacy and optimism. Each construct of PsyCap was identified separately in current research. For this purpose previous literature on these four constructs was studied thoroughly. More specifically, literature on positive psychology was also

explored in this regard because PsyCap is the construct of positive psychology. Along with the in-depth investigation of existing literature, expert's opinions about four constructs that come under the umbrella of PsyCap were obtained in this context. Two focus groups with five experts in each group were conducted in order to take experts opinion on construct identification.

A separate questionnaire was constructed in order to take opinions (why opinions were taken from young adults why not from adolescents) of MPhil (1<sup>st</sup> & 3<sup>rd</sup> semester) students about the four constructs. Through the practice a rich amount of data were obtained related to four constructs, i.e. 20 components of hope; 15 of optimism; 18 of resilience; and 22 of self-efficacy were identified. Components identified in 1<sup>st</sup> step were scrutinized in order to summarize most relevant data and information, related to four core constructs, namely hope, optimism, resilience, and self-efficacy.

**Step II: Item generation.** In this step items were generated on the basis of pertinent data gathered in the first step. Then behaviors related to constructs were generated with the help of three Assistant Professors and three Lecturers of the Department of Psychology, University of Sargodha. Students of MPhil Psychology (1<sup>st</sup>, 3<sup>rd</sup> semester) also provided big helping hand in this context. This process resulted in 25 behaviors related to hope, 28 behaviors related to optimism, 30 behaviors related to resilience and 35 behaviors related to self-efficacy. Items related to each constructs were generated following in-depth analysis of obtained behaviors with the help of three experts. Information from existing scales of hope, optimism, self-efficacy and resilience were also utilized in this regard.

**Step III: Item formulation.** Initial item pool consisted of 114 items, among which 24 items of hope, 28 items of optimism, 30 items of resilience and 33 items of self-efficacy. Overlapping and ambiguous items were detained after keen analysis of all items. Final list comprised of 98 items, which were further distributed into 22 items for hope, 21 items for optimism, 30 items for resilience and 25 items for self-efficacy.

**Step IV: Empirical item evaluation.** The final questionnaire consisted of 98 items including 16 reverse and 82 positively scored items. Four point rating response format was selected with categories i.e. disagree (1) slightly agree (2) moderately agree (3) strongly agree (4).

Instructions to respond the questionnaire were written on form. Data for empirical evaluation of scale was collected from 400 adolescents

Sample was comprised of adolescents ( $N = 400$ ), which was further categorized into males ( $n = 200$ ) and females ( $n = 200$ ). Sample was also categorized on the basis of age i.e. 14 year of age ( $n = 25$ ), 15 year of age ( $n = 25$ ), 16 year of age ( $n = 25$ ) 17 year of age ( $n = 25$ ).

Data were collected from adolescents, whose age ranged between 14 to 17 years. Further categorization of sample was adolescents ( $n = 200$ ) from rural area among, which ( $n = 100$ ) were boys and ( $n = 100$ ) were girls and same proportion of sample belonged to urban areas.

**Procedure.** Sample was approached from public and private schools of districts Sargodha, Jhelum, and Faisalabad. After seeking permission from school administration the data was collected from schools with the help of their teachers. Oral and written instructions to accomplish the questionnaires were given to them along with the assurance of confidentiality of data after briefing the important purpose of study. SPSS-23 version was used to analyze the data.

## Results

### **Evidences of construct validity: dimensionality of the scale**

Principal Component Factor analysis was carried out on pool of 98 items and four factors emerged which were further labeled as Hope, Optimism, Resilience and Self-efficacy (see Table 2). Criterion for item selection was .45 factors loading for each factor. Hence final version of PsyCap consists of four subscales with 34 total numbers of items, from which resilience contained 13 items, self-efficacy contained 7 items, hope contained 8 items and optimism contained 6 items.

### **Evidences of convergent and divergent validity**

Psychological tests are not valid until they ensure convergent and divergent validity. In order to validate newly developed PsyCap scale convergent validity has been ensured by examining correlation of PsyCap with already available scales. Scales used for convergent validity were Happiness Scale (Lyubomirsky & Lepper, 1999), Heath Hope Index, Life Orientation Test, generalized self-efficacy scale.

Table 1

*Reliability Analysis and Correlation Between PsyCap Scale and its Subscales (N = 391)*

Measure	k	M	SD	2	3	4	5	α	Range	
									Potential	Actual
PsyCap	39	103.97	13.11	.88**	.82**	.65**	.44**	.87	1-4	2.62-3.81
Resilience	13	38.25	6.70		.67**	.44**	.15**	.84	1-4	2.63-3.25
Efficacy	07	20.76	3.95			.44**	.21**	.74	1-4	2.73-3.29
Hope	07	26.59	3.61				.05	.67	1-4	3.06-3.81
Optimism	06	18.37	3.71					.70	1-4	2.79-3.26

\*\* $p < .01$ .

Table 1 showed descriptive data and internal consistency index (alpha coefficients) for PsyCap and its subscales. Reliability of PsyCap was .84 and reliabilities for subscales of ranged from .64 to .74, which indicated that all scales and sub-scales achieved satisfactory alpha level. Table 1 also represented the correlation matrix computed for all pairs of scores for total PsyCap, its four sub scales i.e. resilience, self-efficacy, hope, and optimism. The correlation matrix elucidated that PsyCap and its sub-scales have significant and positive correlation with each other except hope and optimism.

Table 2

*Factor Loadings of the Anila Psychological Capital Scale (N = 391)*

Sr. No	Items	Components			
		Resilience	Self-efficacy	Hope	Optimism
1	09	.51	-	-	-
2	44	.52	-	-	-
3	46	.47	-	-	-
4	47	.48	-	-	-
5	48	.45	-	-	-
6	49	.56	-	-	-
7	52	.53	-	-	-
8	55	.64	-	-	-
9	62	.50	-	-	-
10	64	.60	-	-	-
11	73	.51	-	-	-
12	76	.63	-	-	-
13	81	.60	-	-	-
14	25	-	.71	-	-

Table continued

Table 2  
*Factor Loadings of the Anila Psychological Capital Scale (N =391)*

Sr. No	Items	Components			
		Resilience	Self-efficacy	Hope	Optimism
15	26	-	.52	-	-
16	45	-	.49	-	-
17	57	-	.51	-	-
18	59	-	.70	-	-
19	63	-	.51	-	-
20	75	-	.50	-	-
21	2	-	-	.47	-
22	4	-	-	.49	-
23	11	-	-	.45	-
24	22	-	-	.53	-
25	23	-	-	.55	-
26	29	-	-	.49	-
27	71	-	-	.46	-
28	79	-	-	.45	-
29	50	-	-	-	.46
30	70	-	-	-	.53
31	72	-	-	-	.53
32	90	-	-	-	.54
33	95	-	-	-	.51
34	97	-	-	-	.61
% variance		20.67	17.01	5.81	4.38
Cumulative Variance		20.67	37.68	43.49	47.87
$\alpha$		.84	.74	.67	.70

Table 2 displays the results of Exploratory Factor Analysis (EFA) using principle component with varimax ratio, which was conducted to find out the factor structure of the developed scale. EFA yielded four factor solution of the newly developed scale with an Eigen value of >1.00, which account for 47.87% of the total variance. Kaiser-Meyer Olkin measure of sampling adequacy of .88 was greater than the acceptable value of .6 which increased the suitability of factor analysis.

Significant Bartlett's test of sphericity,  $\chi^2 (561) = 3233.38$ ,  $p=.001$ , confirmed that the correlation matrix was significantly different from an identity matrix and the items had enough common variance that can be analyzed through factor analysis. Finally, the communalities were



all above .3, which supported the idea that each item shared some common variance with other items. Evidences presented above suggested that all 34 items were more likely to be considered for factor analysis. First factor that emerged was named as resilience, second as self-efficacy, 3<sup>rd</sup> factor was named as hope, and 4<sup>th</sup> factor of PsyCap scale was labeled as optimism. To confirm the factor structure, .45 factors loading was set as criterion for an item to be included in specific factor. All the four factors contained satisfactory Eigen values i.e., resilience (5.60), self-efficacy (1.18), hope (3.94), and optimism (2.40) that explain 20.67 %, 17.01 % , 5.81 % and 4.31 % variance accounted for each factor respectively and accumulated 47.87% variance accounted for the total PsyCap.

Table 3

Correlational Matrix Computed for Evidences of Convergent and Discriminant Validity for all the Sub-scales of PsyCap ( $N = 80$ )

Variables	Resilience	Self- efficacy	Hope	Optimism	Hap	Self- esteem	Ext	Agre
Resilience	.51**	.43**	.41**	.36**	.28*	.26*	.37*	.13
Self- efficacy		.64**	.42**	.34**	.37**	.29**	.25*	.26*
Hope			.46**	.37**	.16	.24	.27*	.06
Optimism				.39**	.24	.20*	.25*	.11

*Note.* Hap = Happiness; Ext = Extraversion; Agre = Agreeableness.

\* $p < .05$ . \*\* $p < .01$ .

Table 3 presented the convergent and discriminant validity of PsyCap scale with pre-existing scales. Table shows that PsyCap attained significant and high correlation with already existing scales of hope, optimism, self-efficacy and resilience. While PsyCap attained weak (< .30) or non-significant correlation with self-esteem, extraversion and agreeableness which are theoretically unrelated scales.

### Discussion

Current study aimed to develop a reliable, valid measure of PsyCap with sound psychometric properties for adolescents. PsyCap is a second order construct of positive psychology which is categorized into hope, optimism, self-efficacy and resilience. After having thorough insight in the relevant areas of positive psychology the focus of current research has been intended on investigating constructs of positive psychology among adolescents. In current study the most enduring construct of positive psychology i.e. PsyCap has been explored by developing a scale. Psychological capital's keen attention is on what is

right with people (Luthans, 2002a, 2002b; Luthans, Vogelgesang, & Lester, 2006).

Scale has been developed using empirical approach and set patterns used for developing psychological measurements. After thorough review of existing literature construct was identified, comments related to constructs have been also taken from subject matter experts. Already existing scales of hope, optimism, self-efficacy and resilience had also been reviewed for item generation.

After data collection statistical analysis was performed to discover the factor structure of newly developed scale. After factor analysis 34 items were retained among which 13 items retained in 1<sup>st</sup> factor and was named as resilience, 2<sup>nd</sup> factor was composed of 7 items and was termed as self-efficacy, 3<sup>rd</sup> factor contained 8 items and was named as hope, whereas 4<sup>th</sup> factor was of 6 items and was labelled as optimism. Evidences for convergent and discriminant validity of PsyCap scale were ensured through its correlation with pre-existing scales (see Table 2). Results demonstrated that PsyCap attained strong correlation with existing scales of hope, optimism, self-efficacy and resilience, whereas, weak ( $< .30$ ) or non-significant correlation with theoretically unrelated scales i.e. self-esteem, extraversion, and agreeableness elucidated evidence for discriminant validity. Current validity evidence was considered empirically appropriate as Campbell and Fiske (1959) suggested that a measure is jointly defined by its methods of gathering data (e.g., self-report or parent-report) and its trait-related content (e.g., anxiety or depression). They noted that this is important for test scores to be strongly related to other measures of similar psychological construct (evidence of convergent validity) and relatively have weak correlation with measures of different psychological constructs (evidence of discriminant validity).

Furthermore, correlation analysis was also computed to find out relationship between four subscales of Anila PsyCap Scale. All the four subscales of PsyCap scale attained positive and significant correlation with each other. As hope, optimism, self-efficacy and resilience are positive and interrelated constructs so it was surmised that they should be positively correlated with each other. This correlation further provided a ground for validation. Reliability analysis had also been carried out to find out the reliability of newly developed scale. Each sub-scale of PsyCap yielded satisfactory reliability (see Table 1).

It is unique aspect of current study that PsyCap scale has developed particularly for Pakistani adolescents, which was previously

not available Most of existing measures of PsyCap are aimed at focusing on typical organizational settings or adult sample e.g. PsyCap questionnaire (Luthans Youssef, & Avolio, 2007) and Compound-Psychological-Capital questionnaire (Lorenz, Beer, Pütz, & Heinitz, 2016) There are various other scales like hope (Snyder et al. 1996), optimism (Scheier & Carver, 1985), resilience (Wagnild & Yung, 1993), and self-efficacy (Parker, 1998) that are widely used to measure the individual constructs of PsyCap but it is recognized as higher order construct, therefore they cannot be the substitute of a compound and valid measure. Present study designed and validated a PsyCap scale that broadened the domain-specific approach by introducing a measure with claim for Pakistani adolescents. This scale can be used for wide range of purposes and in variety of settings pertinent to adolescents.

**Limitations and Suggestions.** Present study holds some limitations such as like other self-report measure, Anila PsyCap scale is vulnerable to response bias therefore it should be cautiously used with adolescents in various settings. Sample size and sampling procedure is also a limitation in terms of generalization of instrument for whole population of adolescents. Future studies may determine its psychometric properties through stratified random sample to ensure representation of large population. The use of sophisticated statistical procedures, such as SEM, equivalence and bias analysis are also recommended for future studies.

**Implications.** Present scale can largely be used to assess domains and compound PsyCap of Pakistani adolescents in educational and counselling settings. Development of PsyCap scale for Pakistani adolescents not only added to the existing literature but also enticed future researchers to examine certain positive domains of adolescents with an indigenously developed measure.

### References

- Block, J., & Kremen, A. M. (1996). IQ and ego-resilience: Conceptual and empirical connections and separateness. *Journal of Personality and Social Psychology*, 70(2), 349-361.
- Bright, D. S., Cameron, K. S., & Caza, A. (2006). The amplifying and buffering effects of virtuousness in downsized organizations. *Journal of Business Ethics*, 64(3), 249–269.

- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validity by the multitrate-method matrix. *Psychological Bulletin*, *56*(2), 81-105.
- Chafouleas, S. M., & Bray, M. A. (2004). Introducing positive psychology: Finding a place within school psychology. *Psychology in the Schools*, *41*(1), 1-5.
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new General Self-Efficacy Scale. *Organisational Research Methods*, *4*(1), 62-83.
- Child, D. (1990). *The essentials of factor analysis* (2<sup>nd</sup> ed.). London: Cassel Educational Limited.
- Huebner, E. S. (2004). Research on assessment of life satisfaction of children and adolescents. *Social Indicators Research*, *66*(1-2), 3-33.
- Hunter, J. P., & Csikszentmihalyi, M. (2003). The positive psychology of interested adolescents. *Journal of Youth and Adolescence*, *32*(1), 27-35.
- Kersting, K. (2003). Turning happiness into economic power. *Monitor on Psychology*, *34*(11), 26.
- Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist*, *55*(1), 170-183.
- Lepine, J. A., Podsakoff, N. P., & Lepine, M. A. (2005). A meta-analytic test of the challenge stressor-hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, *48*(5), 764-775.
- Lorenz, T., Beer, C., Pütz, J., & Heinitz, K. (2016). Measuring psychological capital: Construction and validation of the Compound PsyCap Scale (CPC-12). *PLoS ONE* *11*(4), e0152892. Doi: 10.1371/journal.pone.0152892.
- Luthans F. (2002a). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, *23*(6), 695-706.
- Luthans, F. (2002a). Positive organizational behavior: Developing and managing psychological strengths for performance improvement. *Academy of Management Executive*, *16*(1), 57-72.
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, *33*(3), 321-349.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, *60*(3), 541-572.

- Luthans, F., Vogelgesang, G., & Lester, P. (2006). Developing the psychological capital of resiliency. *Human Resource Development Review*, 5(1), 25-44.
- Luthans, F., Youssef, C., & Avolio, B. (2007). *Psychological capital: Developing the human competitive edge*. New York: Oxford University Press
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46(2), 137-155.
- Nunnally, J. C. (1978). *Psychometric theory* (2<sup>nd</sup> ed.). New York: McGraw-Hill
- Pajares, F. (2001). Toward a positive psychology of academic motivation. *Journal of Educational Research*, 95(1), 27-35.
- Parker, S. K. (1998). Enhancing role breadth self-efficacy: The roles of job enrichment and other organizational interventions. *Journal of Applied Psychology*, 83(6), 835-852.
- Rich, G. J. (2003). The positive psychology of youth and adolescence. *Journal of Youth and Adolescence*, 32(1), 1-3.
- Riolli, L., Savicki, V., & Richards, J. (2012). Psychological capital as a buffer to student stress. *Scientific Research*, 3(12), 1202-1207.
- Roberts, M. C., Brown, K. J., Johnson, R. J., & Reinke, J. (2002). *Positive psychology for children: Development, prevention, and promotion*. In C. R. Snyder & S. J. Lopez (Eds), *Handbook of positive psychology* (pp. 663-675). London: Oxford University Press
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219-247.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67(6), 1063-1078.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio* (pp. 35-38). Windsor: NFER-Nelson
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology*, 70(2), 321-335.

- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., & Sigmon, S. T. (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.
- Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., & Higgins, R. L. (1996). Development and validation of the State Hope Scale. *Journal of Personality and Social Psychology, 70*(2), 321-335.
- Wagnild, G., & Young, H. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1*(2), 165-178.

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