

Exploring the Factor Structure of New Purpose in Life Scale for Adolescents

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The objective of the present study was to construct and validate a scale on 'Purpose in Life' for adolescents. The purpose of the exercise was to identify how adolescents at this point in life seek to direct their lives so that scale items could be generated that would be relevant and easily understood by the average adolescent. Exploration of their present understanding of purpose in life would facilitate direction in the crucial phase of adolescence. The initial phase involved 64 participants from middle and late adolescence answering open-ended questions relevant to purpose in Life. 90 items were primarily drafted as part of item writing. These items were then sent to 10 subject matter experts in order to take feedback on the relevance, readability, and ambiguity of the items constructed. Lawshe's content validation ratings were used for the inclusion/exclusion of items used for the first tryout. After the SME rating, items were narrowed down to 39, therefore, the total items in the scale used for the first administration were 39 on a sample of 350 participants. The sample consisted of 140 females and 205 males. Age varied from 14 to 18 years, with 84 percent of the population in the age group between 15 to 17 years of age. After the administration, the data was put through exploratory factor analysis to explore the factor structure of the scale. Data explained 60 percent of the variance and resulted in four-dimensional factor structure namely, goal orientation, self-enhancement, relationship orientation and career orientation. Further, items were again administered to a fresh sample of 350 participants. CFA confirmed the four-factor structure of CFA. Data was further correlated with other measures related to purpose in life.

Keywords: Purpose in life, adolescents, factor structure, exploratory and confirmatory factor analysis

Various definitions of life purpose have been proposed through the psychological literature. It has been conceptualized as a central and self-organizing life aim that organizes and stimulates goals, manages behavior, and provide a sense of meaning. Living in accord with one's purpose offers a self-sustaining source of meaning through goal pursuit and goal attainment (Mc Knight & Kashdan, 2009). Convergence of multidimensional model of Ryff's Psychological wellbeing, Victor Frankl's work on Man's search for meaning and 'beyond the self' dimension of purpose in life has served as a theoretical base for this paper's

conceptualization of Purpose in life as a full-fledged construct.

Available tools on purpose in life

Another gap that manifests in the area of 'Purpose in Life' research is that although few scales have been developed catering to the idea of purpose in life, they have failed to tap adolescence as its target population. For instance, a few items in Crumbaugh and Maholick's scale on purpose in life (1969) tap the areas of retirement and death that are poorly suited for adolescents. This paper thus is a modest attempt to fill the gap in the literature and overcome the difficulty of the

already available scales. Through this paper we attempt to explore dimensions better capturing dynamics of the early age and accordingly prepare a robust scale on purpose in life in adolescents.

Construction of Purpose in Life Scale

The initial phase of pilot testing involved 64 participants (53.1% females, 46.9% males) from middle and late adolescence. Participants answered a couple of open-ended questions relevant to purpose in Life which were tailored to explore the main components of the construct. The purpose of the exercise was to identify how adolescents at this point in life seek to direct their lives so that scale items could be generated that would be relevant and easily understood by the average adolescent. Keeping in mind the operational definition of the scale and participants' responses 90 items were primarily drafted. These items were then sent to 10 subject experts to take feedback on the relevance, readability and ambiguity of the items constructed. Lawshe's content validation ratings were used for the inclusion/ exclusion of items used for the first tryout. The total number of items in the scale used for the first administration were 39. Three studies were undertaken to develop a robust Purpose in Life scale. Study 1 focused on exploratory factor analysis. Study two was undertaken to confirm the factor structures through confirmatory factor analysis. After taking into consideration descriptive analysis, factor analysis was run on the data. Additionally, study attempts to establish the correlation of newly developed purpose in life scale with already existing psychological well-being scale and meaning in life scale.

Method

Study 1

The study aimed to explore the factor structure of the Purpose in Life scale by exploratory factor analysis. The sample

comprised of 350 adolescents from various schools of Delhi-NCR. The data was analyzed with the help of SPSS V-26. The values of Kurtosis and skewness divided by its standard error were within the permissible values of ± 2 . Interitem correlations were found to be ranging from 0.25 to 0.68 indicating appropriateness of data for factor analysis. Exploratory factor analysis was done to extract the inherent factor structure of the new Purpose in Life Scale. KMO showed that the data was appropriate for factor analysis with values of .967. The maximum likelihood extraction method with ProMax rotation was used. Items with low factor loading and cross loadings were deleted one by one and EFA resulted in a 4-factor solution. These three factors explained 60% of the variance within the analysis. The inter-correlations among the three factors were in the range of 0.54–0.69. A close scrutiny of the factors and the items under each factor reveal that four factor were named as Goal Attainment, Self-enhancement, Career Orientation, and Relationship Orientation.

Study 2

Confirmatory factor analysis was conducted to confirm the factor structure of the PIL as obtained in study 1. Sample Study 2 comprised of 350 participants. Convenience sampling technique was used to collect data in paper pencil format. 24 items of PIL developed in Study 1 were used to collect data.

Confirmatory factor analysis (CFA) was done using SPSS Amos maximum likelihood procedure to examine the validity of the 4-factor structure of PILS. The obtained fit indices for the 4-factor model of Purpose in Life scale were as follows: Chi Square = 310.56 ($p < 0.001$), DF = 128, CMIN/ DF = 2.42, GFI = 0.91, CFI = 0.910, RMSEA = 0.06 and RMR = 0.039. The model fit indices for single factor competing model were: Chi

Square = 223.20 ($p < 0.001$), CMIN/DF = 4.13, GFI = 0.87, CFI = 0.98, RMSEA = 0.06 and SRMR = 0.03. These fit indices clearly suggested a good fit for the 4 factor model PIL. The inter-factor correlations were 0.94 (factor 1 & factor 2), 0.87 (factor 1 & factor 3) and 0.88 (factor 1 & factor 4); .834 (factor

2 and factor 3); .892 (factor 2 and factor 4); 0.81 (factor 3 and factor 4). A composite reliability of 0.70 is recommended (Hair, 1997). Fornell and Larcker (1981) recommended a CR value of 0.60 or more and AVE greater than 0.5.

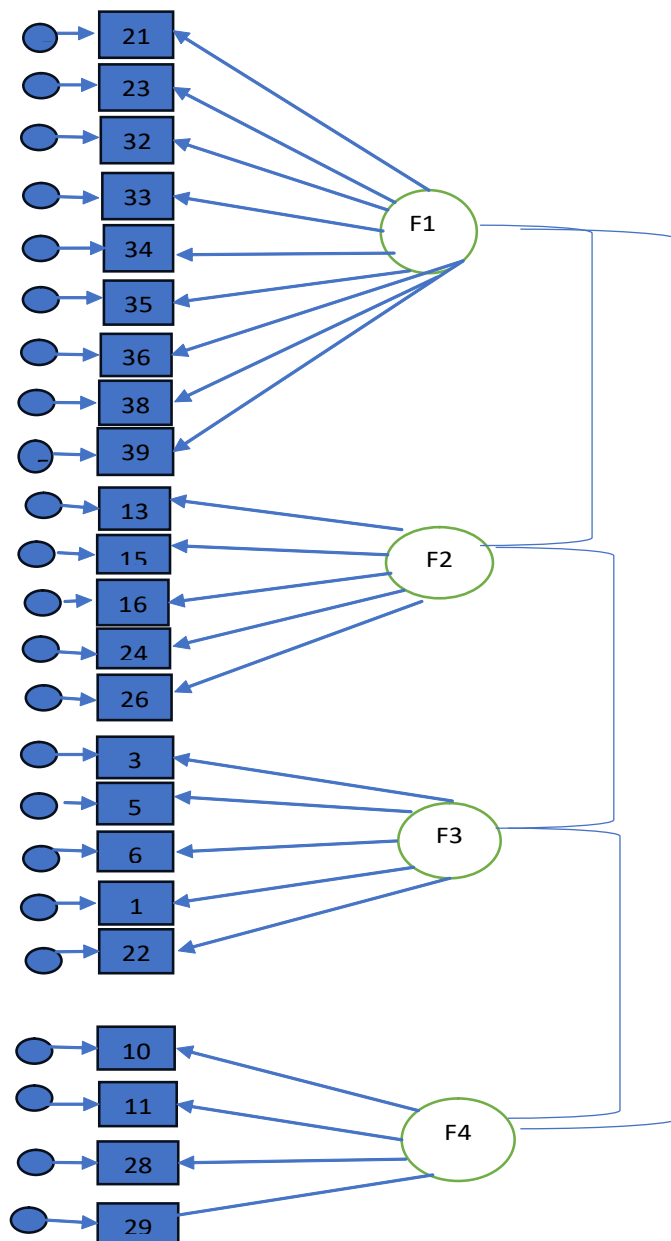


Figure 1: Four factor structure of purpose in life scale

Table 1. showing AVE and composite reliability of items of newly constructed Purpose in Life scale.

Items	Factors	Factor Loading	AVE	Composite Reliability
FACTOR 1				
21. Working on tasks that help me achieve my goals makes me happy.	Goal Attainment	0.58	0.49	0.89
23. I feel motivated when I think of achieving a goal in life.	Goal Attainment	0.56		
32. I work towards developing skills that will help me solve problems of life.	Goal Attainment	0.62		
33. It pleases me to learn new things every day.	Goal Attainment	0.82		
34. Learning new skills make me confident to reach my goals faster.	Goal Attainment	0.63		
35. I seek to increase my overall knowledge.	Goal Attainment	0.76		
36. I work to develop a bright future for myself.	Goal Attainment	0.72		
38. I believe that planning my day will help me achieve my aim.	Goal Attainment	0.70		
39. I have planned what I want to achieve in life.	Goal Attainment	0.85		
FACTOR 2				
13. I work regularly to close the gap between what I presently have and what I want to achieve in life.	Self Enhancement	0.66	0.39	0.75
15. My aim is to be useful to the society.	Self Enhancement	0.77		
16. My aim is to make this world a better place to live in.	Self Enhancement	0.53		
24. I feel I am on the right way to achieve my purpose in life.	Self Enhancement	0.57		
26. I seek to be a better version of myself every day.	Self Enhancement	0.54		
FACTOR 3				
3. I strongly believe that my life has a direction.	Career Orientation	0.67	0.43	0.78
5. I aspire to do satisfactorily in life.	Career Orientation	0.67		
6. When given a choice, I choose subjects/activities that will help me guide my career.	Career Orientation	0.51		
1. I make plans for the future and work to achieve them.	Career Orientation	0.73		
22. I am in search of my purpose in life.	Career Orientation	0.68		
FACTOR 4				
10. Relationships are very important to me.	Relationship Orientation	0.60	0.45	0.75
11. I want to be a role model for my younger siblings.	Relationship Orientation	0.59		
28. I help my fellow mates in achieving their goals.	Relationship Orientation	0.53		
29. I will prove to be a good companion to others around me	Relationship Orientation	0.90		

Study 3

The aim of the study was to correlate the PIL scale with measures related to purpose in life. Study incorporated three scales namely, New Purpose in Life Scale, purpose in life dimension of Psychological Wellbeing Scale (Ryff, 1989) consisting of 9 items, and Meaning in Life Scale (Steger, 2010). Pearson correlation computed to show relationship between purpose in life scale and PIL dimension of psychological wellbeing depicts positive correlation between the two variables, $r=.71$, $p=0.01$. Additionally, Pearson correlation between purpose in life scale and meaning in life scale was also found to be significant, $r= .69$, $p=0.01$. However, new purpose in life scale shared only 51% of variance with purpose in life dimension measured by psychological well-being scale and 48% with meaning in life scale. It suggests that new purpose in life scale measures something unique, which has not been tapped by these two scales. Cronbach alpha of the scale was found to be $\alpha= .89$.

Table 2. Showing correlation among the variables

	Psychological well being	Meaning in life
Purpose in Life scale	0.71	0.69

Discussion

Results have found four dimensions that have come to be associated with Purpose in Life. The first factor is 'Goal attainment' which refers to the process of identifying goal and mobilizing resources to attain the same. Purpose is intrinsically related to 'goal setting and attainment' as it provides a direction to one's life (Hill, 2010). The second factor has been termed as 'Self- enhancement'. A set of researches have tried to explore purpose in terms of the 'broader world' dimension which encompasses a long-term goal and a forward-looking intention to accomplish aims

that are meaningful to self and are of consequence to the broader world. (Damon, Menon & Bronk, 2003). Keeping Damon's concept of broader world as a base, this factor attempts to explore one's purpose beyond self- existence. Third factor has been termed as 'Career Orientation' signifying the way career development is fostered as part of one's purpose in life. Forth factor named as 'Relationship Orientation' pertains to a person's association with family, peers, associates, etc. It is argued that strong relationships help foster a sense of responsibility and in turn strong purposefulness which is meaningful to not only self but others associated as well. Furthermore, the results also revealed that purpose in life scale was related to PIL dimension of psychological well-being scale and meaning in life scale, but Purpose in life scale shared only 5% of variance with psychological well-being and 48% variance with meaning in life. Thus, Purpose in life scale has the potential to contribute uniquely in the measurement of goal directed behavior among adolescents. It is also evident that the newly constructed measure displays a strong internal consistency.

Limitations

There are a few limitations of the present research. The present scale has focused on a single purpose. However, at a single point in time a person may have more than one purpose. For example, recent progress in research suggested that a person who pursues a single purpose may become disheartened if the obstacles become too great to overcome. If that same person had several purposes—each within different domains—then she may shift from the currently impeded purpose to other more feasible purposes. Shifting between purposes facilitates the ongoing pursuit of purposeful living and thus may increase the positive benefits that result. (Mc Knight & Kashdan, 2009). Lastly, the test establishes that new

purpose in life measures something which has not been explored by two other available scales. However, it leaves the scope to establish incremental validity.

Conclusion

It can thus be concluded that purpose in life scale for adolescents displayed decent factor structure and psychometric properties. Exploratory factor analysis led to development of four factor structure suggesting that purpose in life as a higher order construct can be studied through four dimensions namely, goal attainment, career orientation, relationship orientation, and self enhancement. The factor structure was further confirmed and found to be closely related with psychological well-being and meaning in life. It is also evident that purpose in life scale for adolescents will have long-term implications. Scores on the scale attempt to provide the foundation for development of direction in the vulnerable age of adolescence.

References

- Abramoski, K., Pierce, J., Hauck, C., & Stoddard, S. (2018). Variations in Adolescents' Purpose in Life and their Association With Lifetime Substance Use. *The Journal of School Nursing*, 34(2), 114-120. *An International Journal of Theory and Research*, 12, 74-91
- Assor, A., Roth, G., & Deci, E. L. (2004). The emotional costs of parents' conditional regard: A self-determination theory analysis. *Journal of Personality*, 72, 47-88.
- Boyle, P. A., Barnes, L. L., Buchman, A. S., & Benneett, D. A. (2009). Purpose in life is associated with mortality among community-dwelling older persons. *Psychosomatic Medicine*, 71, 574-579.
- Bronk, K. C., Riches, B. R., & Mangan, S. A. (2018). *Claremont Purpose Scale (CPS)*
- Bronk, K.C., & Mangan, S. (2016). Strategies for Cultivating Purpose Among Adolescents in Clinical Settings. *Clinical Perspectives on Meaning*. Springer.
- Crumbaugh, J. C., & Maholick, L. T. (1964). An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. *Journal of clinical psychology*, 20(2), 200-207.
- Damon, W., Menon, J., & Bronk, K.C. (2003). The Development of Purpose During Adolescence, *Applied Developmental Science*, 7:3, 119-128
- Fox, A. P., & Leung, N. (2009). Existential well-being in younger and older people with anorexia nervosa: A preliminary investigation. *European Eating Disorders Review*, 17, 24-30.
- Hill, P. L., & Burrow, A. L. (2012). Viewing purpose through an Eriksonian lens. *Identity*:
- Hill, P. L., & Turiano, N. A. (2014). Purpose in Life as a Predictor of Mortality Across Adulthood. *Psychological Science*, 25(7), 1482-1486.
- Knight, M.C & 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, 242-251.
- Lamis, D. A., West, L. M., Mehta, N., Lisco, C., Tarantino, N., Wilson, C., & Kaslow, N. J. (2014). Existential well-being, drug abuse, and parenting stress in African American women. *International Journal of Mental Health and Addiction*, 12, 686-699
- Lee, Y. (2014). The relationship of spiritual well-being and involvement with depression and perceived stress in Korean nursing students. *Global Journal of Health Science*, 6, 169-176
- Lewis, N.A, Reesor, N., & Hill, P.L. (2020). Perceived barriers and contributors to sense of purpose in life in retirement community residents. *Ageing and Society*.
- Liang, B., White, A. E., Rhodes, H., Strodel, R., Gutowski, E., Mousseau, A. M. D., & Lund, T. J. (2017). Pathways to purpose among impoverished youth from the Guatemala

- City Dump community. *Community Psychology in Global Perspectives*, 3, 1–21.
- Lund, T.J., Liang, B., Lincoln, B., White, A.E., Mousseau, A.M.D., Mejia Gomez, L.A., & Akins, E. (2022). Purpose in Life among First-Generation College Students: Friends Make a Difference. *Youth*, 2, 12–22.
- Mela, M. A., Marcoux, E., Baetz, M., Griffin, R., Angelski, C., & Deqiang, G. (2008). The effect of religiosity and spirituality on psychological well-being among forensic psychiatric patients in Canada. *Mental Health, Religion, & Culture*, 11, 517-532.
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719–727
- Sheldon, K., & Kasser, T. (2001). Getting older, getting better? Personal strivings and psychological maturity across the life span. *Developmental Psychology*, 37, 491–501
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53, 80-93.
- Steptoe, A., Deaton, A., & Stone, A. A. (2014). Subjective wellbeing, health, and aging. *Lancet*, 385, 640-648.
- Taliaferro, L. A., Rienzo, B. A., Pigg, M. R., Jr., Miller, D. M., & Dodd, V. J. (2009). Spiritual well-being and suicidal ideation among college students. *Journal of American College Health*, 58, 83-90.
- Watkins, J. A., Christie, C., & Chally, P. (2006). Relationship between spiritual wellbeing and binge eating in college females. *Eating and Weight Disorders*, 11, 51-56
- Xi, J., Lee, M., Carter, J.R., Delgado, D. (2018). Gender Differences in Purpose in Life: The Mediation Effect of Altruism. *Journal of Humanistic Psychology*. 1-8.
- Yakushko, O. (2005). Influence of social support, existential well-being, and stress over sexual orientation on self-esteem of gay, lesbian, and bisexual individuals. *International Journal for the Advancement of Counselling*, 27, 131-143.

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