

Original Research Article

Resilience and Empathy as Predictors of Psychological Wellbeing among Adolescents

Seema Vinayak¹, Jotika Judge²

¹Professor, Department of Psychology, Punjab University, Chandigarh

²Ph.D. Student, Department of Psychology, Punjab University, Chandigarh

Corresponding Author: Seema Vinayak

ABSTRACT

The purpose of this study was to examine predictors of psychological wellbeing among adolescents. A sample of 150 adolescents (13-15 years) was administered Psychological well-being scale (Ryff, & Keyes, 1995), Conner-Davidson resilience scale (Campbell-Sills & Stein, 2007) and Toronto empathy questionnaire (Spreng, McKinnon, Mar & Levine, 2009) to examine the impact of resilience and empathy on psychological well-being. Correlational analysis, t-test and multiple regression analysis were applied. Resilience and empathy were found to be positively related to psychological well-being. Resilience and empathy were retained as predictors among girls while resilience came out to be the sole predictor of psychological well-being among boys. Girls were found to be more empathetic and resilient than boys. No gender differences were found on psychological well-being.

Keywords: Empathy, gender differences, psychological well-being, resilience

INTRODUCTION

Youth is an important part of population for any nation as they bring new ideas and energy, contributing to the overall development of nation in particular and world in general. In a country like India where 41 % of population is under 20 years of age (Census, 2011), the need to ensure the proper health and development of this age group increases manifold. The definition of health has itself undergone various changes over years. Today, psychological and mental health is been acknowledged at par with physical health world over. WHO describes health as “a state of complete, physical, mental and social well-being and not merely the absence of disease or infirmity.” Any definition of health is today, incomplete without the mention of psychological health. Psychological well-being has become the centre of psychological research with the

advent and growth of field of positive psychology. Before the focus shifted towards positive psychology, health especially psychological health was viewed more in terms of psychological distress and absence of any disease. Positive psychology shifted the focus towards a fully functioning individual who is not only free from infirmity and disease but also strive for his/her own betterment. Defining psychological wellbeing has remained a difficult task as various concepts such as life satisfaction; happiness as well as subjective wellbeing has been included in the foray of psychological wellbeing. Ryff and Keyes (1995) came up with a multidimensional model of psychological wellbeing. This model is a shift from developmental and abnormal psychology approaches to psychological well-being. According to Ryff’s model, psychological well-being has six different dimensions; autonomy,

environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. All these dimensions have their own role and add to the psychological well-being of an individual. This multifaceted model is today, the most empirically tested and scientifically valid model of psychological well-being (David, 2015).

Resilience leads to positive youth development (Larson, 2006) and empathy develops extensively during adolescence (Shellenbarger, 2013). Resilience is helpful for adolescents in gaining a healthy sense of identity (Dent, 2016) and empathy helps in the development of emotional as well as social competence in adolescent and adulthood (Allemande, Steiger & Fend, 2014). This study explores the relationship of these two variables with psychological well-being among adolescents in Indian context as both these variables contribute positively to mental health. Resilience is defined as “the process of adapting well in the face of adversity, trauma, tragedy, threats, or even significant sources of stress—such as family and relationship problems, serious health problems, or workplace and financial stressors (American Psychological Association, 2014). Lee, Cheung & Kwong (2012) in their review on resilience, put forward its three main aspects, resilience as a capacity, as a process and as a result. In all these capacities the construct of resilience is considered to be an important developmental construct for adolescents. Sagone and De Caroli (2014) found that resilience in middle as well as late adolescents is positively related to PWB. When adolescents view themselves being growing, expanding and able to make choices, the more resilience they possess.

Empathy has been described in terms of emotional appreciation of others feelings by Lipps, (Montag, Gallinat & Heinz, 2008) in days, when research on empathy began. It is the ability to feel the emotions of others and understanding it from his/her perspective. Empathy was found to be related positively to higher

levels of psychological well-being across various traditions (O’Conner et al., 2015) However, the relationship between empathy and wellbeing has not been clearly defined in literature. Researches like Figley (1995), Jones et al. (2000), Batson, Ahmad & Stocks (2004), Prinz (2011), Bloom (2013), have put forward a different side of empathy where it may relate to negative emotions and distress if one takes it to extreme levels and thus negatively affect an individual’s wellbeing. Due to such claims researchers, now, have begun to differentiate between positive and negative empathy (Morelli, Lieberman & Zaki, 2015). However, the majority of research on empathy finds desirable correlates and outcomes (Konrath & Gyrnberg, 2013).

Resilience has been found to play role in promoting and enhancing individuals’ well-being by various researchers (Kimberly, Christopher & Kulig, 2000; Souri & Hasanirad, 2011; Hasse et al., 2014; Fabio & Palazzeschi, 2015; Scoloveno, 2015). Resilience prepares an individual to fight against and remain vigilant regarding any sort of risk, thus, acting as a deterrent to any potential maladaptive coping and behaviour. Psychological well-being is also found to be positively influenced by empathy (Ickes, 2003; Khajeh, Baharloo & Soliemani, 2014; Bourgault et al., 2015; Shanafelt, 2005; Choi et al, 2016; Morelliet al., 2017). Empathy enhances an individual’s self-image and also helps to maintain relationships (Chung, 2014) which add up to the well-being of an individual. Empathy is a key component of resilience (Brooks & Goldstein, 2003) as when one tries to understand the perspective of others’ he also prepares oneself to tackle with any situation that might come his way. By putting ourselves in others’ situation we can learn resilience without even being going through the stressful situation. Various researchers, over the years have found a positive correlation between empathy and resilience (Samani et al., 2007; Grant & Kinman, 2014; Haramati & Weissinger, 2015; Smith

& Hollinger-Smith, 2015).

Review of literature points out the importance of psychological well-being for adolescents and this makes it necessary to dig deeper all the aspects that can influence it, previous researches have shown resilience and empathy to be two such variables. The primary objective of the study was to predict whether resilience and empathy can predict psychological well-being among adolescents. It also measures the associations between these three variables viz. resilience, empathy and psychological well-being among adolescents. In addition, study also measures gender differences in resilience, empathy and psychological well-being among adolescents. The study can help in identifying ways in which levels of psychological well-being and mental health among adolescents can be promoted.

Based on review of literature following hypothesis were proposed

1. PWB will be positively related to resilience and empathy among adolescents.
2. Resilience and empathy will predict PWB among adolescents.
3. There will be significant gender differences in levels of resilience, empathy and psychological well-being among adolescents.

METHOD

The study was designed to measure the predictors of psychological well-being among adolescents. The data was collected from private schools in Jalandhar district. 300 students of classes 9th and 10th were contacted in the age range of 13-15 years. Out of these 300, 150 students (75 boys and 75 girls) who met the inclusion criteria were chosen as final sample.

Inclusion Criteria

- Participants who were from middle socio economic group were included.
- Participants staying in nuclear families were included.
- Participants from rural areas were included.

Exclusion Criteria

- Adolescents suffering from psychopathology or deteriorated mental or physical health were not included in the sample.
- Adolescents from dysfunctional and broken families were excluded from the sample.
- Adolescents with parents suffering from psychopathology or deteriorated mental or severe physical health issues were not included in the sample.

MEASURES

Conner-Davidson Resilience Scale

Conner-Davidson Resilience Scale (Campbell-Sills & Stein, 2007) consists of 10 items, each rated on a five point scale. Scale has internal consistency reliability of 0.85 along with satisfactory construct validity.

The Toronto Empathy Questionnaire

The Toronto Empathy Questionnaire (TEQ; Spreng, McKinnon, Mar & Levine, 2009) consists of 16 questions, each rated on a five point scale. It has internal consistency reliability coefficient of 0.72 with strong construct validity.

Psychological Well Being Scale

Psychological Well-Being Scale is an 18 item scale (Ryff et al., 1995). All responses are made on 7-point scale ranging from 1 (strongly agree) to 7 (strongly disagree). The measure has adequate reliability of .70 (Ryff et al., 2007).

STATISTICAL ANALYSIS

Correlation analysis and predictor analysis were applied. Descriptive statistics viz, mean and standard deviation was also performed and t-test was used to find the gender differences among variables.

RESULTS

One of the objectives of study was to find the relationship between resilience, empathy and psychological well-being. The result shows that resilience ($r= 0.51^{**}$, $p \leq 0.01$) and empathy ($r= 0.54^{**}$, $p \leq 0.01$) are positively related with psychological well-

being. However, resilience and empathy have the higher correlation ($r = 0.67^{**}$, $p \leq 0.01$) as compared to their correlations with psychological well-being.

Another objective of the present study was to delineate the significant predictors for PWB. Variables i.e. resilience and empathy were entered as predictors. Regression Analysis revealed that both resilience ($\beta = 0.61$) and empathy ($\beta = 0.76$) turned out to be relevant and were retained as predictors for girl respondents. They explained 61.3% ($R^2 = 0.61$) of the variance in the criterion variable i.e. PWB (Table 1).

Among the two variables entered as predictors i.e. resilience and empathy only resilience ($\beta = 0.69$) came out to be a significant predictor among boys. It explained 48.8 % ($R^2 = 0.48$) of variance in criterion variable i.e. PWB (Table 1).

Table 1 shows the regression equations for resilience and empathy as predictors of PWB.

Predictor Variables	Standardized Coefficients	t-value	R ²	F-value
Girls				
Resilience	0.61	6.67**	0.37	44.56**
Empathy	0.76	10.25**	0.59	105.23**
Boys				
Resilience	0.69	8.33**	0.48	69.53**

**Significant at $p \leq .01$ level *Significant at $p \leq .05$ level

Yet another objective of study was to find gender differences on resilience, empathy and PWB. Gender differences were found on resilience ($t = 4.06^{**}$, $p \leq 0.01$) and empathy ($t = 1.80^{**}$, $p \leq 0.01$) while no gender difference exists on PWB ($t = 0.32$).

DISCUSSION

The current study primarily aimed to investigate the associations between resilience, empathy and psychological well-being, and to investigate whether resilience and empathy predicts psychological well being in urban and rural adolescents. Psychological wellbeing is an important aspect for the growth and development of adolescents. Adolescence is a period of turmoil and during this time it becomes imperative to focus not only on physical but also on psychological wellbeing of adolescents. Consistent with previous

findings, this study found that resilience is related to psychological wellbeing in adolescents (Miller et al., 1996; Carver, Scheier, & Segerstrom, 2010; Smith & Smith, 2015; Faisal & Mathai, 2017). Ryff and Singer's (2003) model of psychological well-being states that resilient people are better in maintaining their physical as well as psychological health which gives them more power to recover easily and quickly from stressful situations. Resilience gives an individual a better confidence and sense of self which empowers them to deal effectively with stress and negative emotions, and thus, plays important role in psychological health. Rutter (2008) found that there is a common misconception that people who are resilient experience no negative emotions or thoughts and display high wellbeing and optimism in all situations. Contrary to this misconception, the reality remains that resiliency is demonstrated within individuals who can effectively and relatively easily navigate their way around crises and utilize effective methods of coping.

The results also indicate a positive relationship between empathy and psychological wellbeing. Not many research has been conducted with these two variables but few researches (Shanafelt et al., 2005; Stutzer & Frey, 2006; Lee, Brennan, & Daly, 2011; Khajeh, Baharloo & Soliemani, 2014) have found about the positive impact that empathy has on psychological well-being. Empathy has an influence on psychological well being as taking others' perspective indicates doing away with egoistic perspective of one's own self, and therefore, helps in reduction of selfish and impulsive behaviour, which in turn contributes towards enhanced well-being (Gazzaniga, 2008). Empathy adds in to psychological well-being because an empathetic individual has positive perception of one's own self resulting from their empathetic feelings and actions towards others. According to Lyubomirsky and Layous's (2013) positive-activity model, acts of kindness and gratitude

towards others enhance the well-being of an individual. Empathy enhances self-esteem and purpose in life but over indulgence in the emotion can also result in increased physiological difficulties (Manczak, DeLomgis & Chen, 2016)

Another objective of the present study was to delineate the significant predictors for criterion variable PWB. For this, multiple regression analysis was applied on the sample. The variables i.e. resilience and empathy were entered as predictors. The results revealed that empathy contribute majorly in prediction of PWB followed by resilience in females while resilience came out to be the sole predictor of PWB among male respondents. Empathy is associated with positive emotions, able to understand others' in a better way leads to better sense of one's own self and also leads to altruistic actions which in turn gives a satisfaction and happiness of being useful to someone else. Recognizing one's own emotions well and also able to 'feel' the emotional states of others' is beneficial for the mental health (Carnicer & Caterina, 2014). As empathy works to understand others' perspective while remaining detached, it works towards the direction of protecting against damage to psychological well-being (Gerdes & Segal, 2009). Gender differences in empathy develop in adolescence with increase in empathy in female adolescents (Mestre et al., 2009). Thus, it failed to work as predictor of psychological well-being among males. The differences in socialisation of genders as well as biological changes occurring at adolescent, tilts the development of empathy towards females (Oransky & Mareeck, 2009). Irrespective of biological gender, femininity has been found to be related with empathetic tendencies, whereas masculinity inhibits these same tendencies (Karniol et al., 1998). On average, male adolescents are more passive emotionally, and therefore, show lower sensitivity and loyalty than do female adolescents (Tello et al., 2012). Thus, the difference between genders contributes to

role of empathy as predictor of psychological well-being among male and females.

Resilience comes out to be as yet another predictor of psychological well-being. Resilience is an ability to bounce back from stressful experiences effectively and quickly (Tugade & Fredrickson, 2004) when one does so he not only gets a sense of self achievement but it also makes him believe that he is strong enough to face any hardships in the future, which resonates positive feelings even in the aftermath of difficult times. Resilience acts as a protective factor which enhances positive thoughts and leads to healthy personality characteristics (Shastri, 2013). Hasse et al. (2014) resilience in illness model states that positive health factors induce resilience in individuals, thus establishing a favourable link between psychological well-being and resilience. Youth with any past trace or current mental illness have low levels of resilience, thus, showing the inverse relationship between two variables across time (McDermott et al., 2010). People high on resilience are less likely to interpret an event as stressful, which in turn, contributes towards their psychological well-being. Resilience relates to positive evaluations of one's self, a sense of growth, development and self-determination, it enhances an individual's belief in purposeful and meaningful life, thus, contributing towards psychological well-being (Fava & Tomba, 2009).

The study also found gender differences in terms of resilience and empathy. Girls are found to be high on resilience as well as on empathy. In terms of psychological well-being, no such differences exist. Female on an average are more resilient than male. Women face multiple challenges and prejudices in their lives, the accumulation of all this may enhance the resilience among them (Issacs, 2014). Women also receive more social support and expresses less anger which serve as a protective factor that adds up to their resilient abilities (Galambos, Barker &

Krahn, 2006). Males are more individualistic in terms of coping (Sneed et al., 2006), thus it limits their resilience as they fail to approach for help under difficult situations as compared to females. Girls also scored higher on empathy. This gender difference can be attributed to motivational factors prevalent in society (Klein and Hodges, 2001), as girls from young age are taught to be compassionate, soft spoken while boys are discouraged to have such qualities. However, these differences are evident in self-report measures while when measured in objective ways gender differences seem to be non-existent (Rueckert, Branch & Doan, 2011).

One of the limitations of the study is that the sample is based only on adolescents from rural areas. For better understanding and clear picture of adolescent health it is important to include population from urban areas as well. Also, the sample belongs to middle socio-economic strata which again limit its scope. For further studies, it is recommended that sample be included from different socio-economic strata.

CONCLUSION

On basis of this study, one can conclude that resilience and empathy are very closely related to psychological well being among adolescents. Thus, focus should be put in schools to teach students the art of being resilient and empathetic towards one another. These are positive emotions which will not only add to their psychological health but also lead them towards better inter as well as intrapersonal understanding.

REFERENCES

- Allemande, M., Steiger, A.E. & Fend, H. A. (2014). Empathy development in adolescence predicts social competencies in adulthood. *Journal of personality*, 83(2), 229-241.
- Batson, C.D., Ahmad, N. & Stocks, E.L. (2004). Benefits and liabilities of empathy-induced altruism. *The social psychology of good and evil*, 359-385.
- Bloom, P. (2013, May 20). The baby in the well: the case against empathy. *The New Yorker*, 20.
- Bourgault, P., Lavoie, S., Paul-Savoie, E., Gregoire, M., Michaud, C., Gosselin, E. & Johnston, C. (2015). Relationship between empathy and well-being among emergency nurses. *Journal of emerging nursing*, 41(4), 323-328. doi: 10.1016/j.jen.2014.10.001
- Brooks, R. & Goldstein, S. (2003). *Nurturing resilience in our children: answers to the most important parenting questions*. New York: Contemporary Books.
- Campbell-Sills, L. & Stein, M.B. (2007). Psychometric analysis and refinement of the Connor-Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress*, 20(6). 1019-28. Doi:10.1002/jts.20271.
- Carnicer, C.J. & Caterina, C. (2014). Empathy and coping strategies as predictors of well-being in Spanish university students. *Electronic Journal of Research in Educational Psychology*, 12 (1), 129-146.
- Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review*, Doi: 10, 1016/j. cpr. 2010. 01. 006.
- Choi, D., Minote, N., Sekiya, T. & Watanuki, S. (2016). Relationships between trait empathy and psychological well-being in Japanese university students. *Psychology*, 7, 1240-1247.
- Chung, M.S. (2014). Pathways between attachment and marital satisfaction: The mediating roles of rumination, empathy, and forgiveness. *Personality and individual differences*, 70, 246-251.
- Connor, K.M. & Davidson, J.R. (2003). Development of a new resilience scale: the Connor-Davidson Resilience Scale. *Depression and Anxiety*, 18(2), 76-82.
- David. (2015). Carol Ryff's model of psychological well-being the six criteria of well-being. Retrieved from: <http://livingmeanings.com/six-criteria-well-ryffs-multidimensional-model/>.
- Dent, M. (2016). *Building children's resilience*. Murwillumbah: Pennington Publications.
- Fabio, A. & Palazzeschi, L. (2015). Hedonic and eudaimonic well-being: the role of resilience beyond fluid intelligence and

- personality traits. *Frontiers in Psychology*, (6) doi: 10.3389/fpsyg.2015.01367.
- Faisal, T. & Mathai, S.M. (2017). Resilience and spirituality as correlates of psychological well-being among Adolescents. *The International Journal of Indian Psychology*, 4(3), 23-29. DOI: 10.25215/0403.143.
 - Fava, G.A. & Tomba, E. (2009). Increasing psychological well-being and resilience by psychotherapeutic methods. *Journal of Personality*, 77(6), 1903-34. doi: 10.1111/j.1467-6494.2009.00604.x. Epub 2009 Oct 6.
 - Figley, C. R. (Ed.) (1995). Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized. NY: Brunner/Mazel.
 - Galambos, N.L., Barker, E.T. & Krahn, H.J. (2006). Depression, self-esteem, and anger in emerging adulthood: seven-year trajectories. *Developmental Psychology*, 42(2), 350-365. DOI: 10.1037/0012-1649.42.2.350.
 - Gazzaniga, M. (2008). Human: The Science behind What Makes Us Unique. New York: HarperCollins.
 - Gerdes, K.E. & Segal, E. (2009). Importance of empathy for social work practice: integrating new science. *Social Work*, 56 (2), 141-8.
 - Grant, L. & Kinman, G. (2014). Emotional resilience in the helping professions and how it can be enhanced. *Health and Social Care Education*, 3(1), 23-34.
 - Hasse, J.E., Kintner, E.K., Monahan, P.O. & Robb, S.L. (2014). The resilience in illness model, part 1: exploratory evaluation in adolescents and young adults with cancer. *Cancer Nursing*, 37(3).
 - Haramati, A. & Weissinger, P.A. (2015). Resilience, empathy and well-being in health professions: An educational imperative. *Global advances in Health and Medicine*, 4(5), 5-6.
 - Ickes, W. (2003). *Everyday mind reading*. New York: Prometheus Books.
 - Isaacs, A.J. (2014). Gender differences in resilience of academic deans. *Journal of Research in Education*, 24(1).
 - Isaacs, A.J. (2014). Gender differences in resilience of academic deans. *Journal of Research in Education*, 24(1): 112-119.
 - Jones, A.P., Happé, F.G.E., Gilbert, F., Burnett, S. & Viding, E. (2010). Feeling, caring, knowing: different types of empathy deficit in boys with psychopathic tendencies and autism spectrum disorder. *Journal of Child Psychology and Psychiatry and allied disciplines*, 51(11): 1188-1197. doi: 10.1111/j.1469-7610.2010.02280.x.
 - Karniol, R., Gabay, R., Ochion, Y., & Harari, Y. (1998). Is gender or gender-role orientation a better predictor of empathy in adolescence? *Sex Roles*, 39, 45-59.
 - Khajeh, A., Baharloo, G. & Soliemani, F. (2014). The relationship between psychological well-being and empathy quotient. *Management Science Letters*, 4(6), 1211-1214.
 - Kimberly, A., Christopher, K. & Kulig, J. (2000). Determinants of psychological well-being in Irish immigrants. *Western Journal of Nursing Research*, 22 (2), 123-143.
 - Klein, K.J.K. & Hodges, S.D. (2001). Gender Differences, Motivation, and Empathic Accuracy: When it pays to Understand. *Personality and Social Bulletin*, 27(6), 720-730. DOI: <https://doi.org/10.1177/0146167201276007>.
 - Konrath, S.H. & Grynberg, D. (2013). *The Positive (and Negative) Psychology of Empathy*. Watt, D. & Panksepp, J. (Eds) *The Neurobiology and Psychology of Empathy*, Nova Science Publishers, Inc
 - Larson, R. (2006). Positive youth development, willful adolescents, and mentoring. *Journal of Community Psychology*, 34 (6), 677-689.
 - Lee, H.S., Brennan, P.F. & Daly, B.J. (2011). Relationship of empathy to appraisal, depression, life satisfaction, and physical health in informal caregivers of older adults. *Research in Nursing and Health*, 24, 44-56.
 - Lee, T.Y., Cheung, C.K. & Kwong, W.M. (2012). Resilience as a positive youth development construct: a conceptual review. *Scientific World Journal*, 390-450. doi:10.1100/2012/390450.
 - Lyubomirsky, S. & Layous, K. (2013). How do simple positive activities increase well-being? *Current Directions in Psychological Science*, 22 (57).
 - Manczak, E.M., DeLomgis, A. & Chen, E. (2016). Does empathy have a cost?

- Diverging psychological and physiological effects within families. *Health Psychology*, 35, (3), 211–218.
- Mestre, M.V., Samper, P., Frias, M.D. & Tur. A.M. (2009). Are women more empathetic than men? A longitudinal study in adolescence. *Spanish Journal of Psychology*, 12(1), 76-83.
 - Miller, D. L., Manne, S. L., Taylor, K., Keates, J., & Dougherty, J. (1996). Psychological distress and well-being in advanced cancer: The effects of optimism and coping. *Journal of Clinical Psychology in Medical Settings*, 3, 115–130.
 - Montag, Christiane & Gallinat, Jürgen & Heinz, Andreas. (2008). Theodor Lipps and the Concept of Empathy: 1851–1914. *The American Journal of Psychiatry*. 165 (10).
 - Morelli, S.A., Lieberman, M.D. & Zaki, J. (2015). The emerging study of positive empathy. *Social and Personality Psychology Compass*, 9 (2), 57–68, doi:10.1111/spc3.12157.
 - Morelli, S., Ong, D., Makati, R., Jackson, M. & JamilZaki, J. (2017). Empathy and well-being correlate with centrality in different social networks. *PANS*, 114 (37) 9843-9847.
 - O’Conner, L.E., R.K., Berry, J.W., Stiver, D.J., Hanson, R., Ark, W. & Toni Li, T. (2015). Empathy, compassionate altruism and psychological well-being in contemplative practitioners across five traditions. *Psychology*, 6 (8), 989-1000. doi: 10.4236/psych.2015.68096.
 - Oransky M, Marecek J. (2009). “I’m not going to be a girl” masculinity and emotions in boys’ friendships and peer groups. *Journal of Adolescent Research*, 24, 218–241. doi: 10.1177.
 - Prinz J. (2011). Is empathy necessary for empathy? In Empathy: philosophical and psychological perspectives (eds A Coplan, Goldie P, editor.), pp. 211–229. New York, NY: Oxford University Press.
 - Rueckert, L., Branch, B. & Doan, T. (2011). Are gender differences in empathy due to differences in emotional reactivity. *Psychology*, 2, (6), 574-578. DOI:10.4236/psych.2011.26088.
 - Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences*, 1094, 1–12. Ryff, C.D. & Keyes, C.L.M. (1995). The structure of psychological well-being Revisited. *Journal of Personality & Social Psychology*, 69(4), 719-727.
 - Ryff, C.D. & Keyes, C. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719-727.
 - Ryff, C.D. & Singer, B. (2003). Flourishing under fire: Resilience as a prototype of challenged thriving. C.L.M. Keyes, J. Haidt (Eds.), Positive psychology and the life well-lived, APA, Washington, DC(2003), pp. 15-36
 - Sagone, E., & De Caroli, M.E. (2014). A correlational study on dispositional resilience, psychological well-being, and coping strategies in university students. *American Journal of Educational Research*, 2 (7), 463-471.
 - Samani, S., Jokar, B., Sahragardan. (2007). Resilience, mental health and life satisfaction. *Psychiatry and Clinical Psychology Journal*, 13(3): 290-295.
 - Scoloveno, R. (2015). A theoretical model of health-related outcomes of resilience in middle adolescents. *Western Journal of Nursing Research*, 37(3).
 - Shanafelt, T. D., West, C., Zhao, X., Novotny, P., Kolars, J., Habermann, T., & Sloan, J. (2005). Relationship between increased personal well-being and enhanced empathy among internal medicine residents. *Journal of General Internal Medicine*, 20, 559-564. <http://dx.doi.org/10.1007/s11606-005-0102-8>.
 - Shastri, P.C. (2013). Resilience: building immunity in psychiatry. *Indian Journal of Psychiatry*, 55(3), 224-234.
 - Shellenbarger, S. (2013, October 15). Teens are still developing empathy skills. The wall street journal. Retrieved from: <https://www.wsj.com/articles/teens-are-still-developing-empathy-skills-1381876015>.
 - Smith, J.L. & Hollinger-Smith, L. (2015). Savoring, resilience, and psychological well-being in older adults. *Aging and Mental Health*, 19(3), 192-200. doi: 10.1080/13607863.2014.986647. Epub 2014 Dec 4.
 - Sneed, J.R., Johnson, J.G., Cohen, P., Gilligan, C., Chen, H., Crawford, T.N. & Kasen, S. (2006). Gender differences in

- the age-changing relationship between instrumentality and family contact in emerging adulthood. *Developmental Psychology*, 42, (5), 787–797. DOI: 10.1037/0012-1649.42.5.787.
- Souril, H., & Hasanirad, T. (2011). Relationship between Resilience, Optimism and Psychological Well-being in Students of Medicine, *Procedia – Social and Behavioral Sciences*, 30, 1541-1544.
 - Spreng, R.N., McKinnon, M.C., Mar, R.A. & Levine B. (2009). The Toronto empathy questionnaire: scale development and initial validation of a factor-analytic solution to multiple empathy measures. *Journal of Personality Assessment*, 91, 62-71. doi: 10.1080/00223890802484381
 - Stutzer, A. & Frey, B. S. (2006). Does marriage make people happy, or do happy people get married? *The Journal of Socio-Economics*, 35(2), 326-347.
 - Tello, H.F.P., Egido, D.B., Ortiz, C.M.A., Gandara, D.B.M.V. (2012). Interpersonal reactivity index: analysis of invariance and gender differences in Spanish youths. *Child Psychiatry and Human Development*, 44:320–333. doi: 10.1007/s10578-012-0327-9.
 - Tugade, M.M. & Fredrickson, B.L. (2011). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320-333. Doi: 10.1037/0022-3514.86.2.320

How to cite this article: Vinayak S, Judge J. Resilience and empathy as predictors of psychological wellbeing among adolescents. *Int J Health Sci Res*. 2018; 8(4):192-200.
