

Study of relationship between optimism and resilience in the times of COVID-19 among university students

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ABSTRACT

The purpose of present research is to study the effect of COVID-19 Pandemic on the relationship between Optimism and Resilience among the university students. Optimism and Resilience of 100 university students (36 males and 64 females) were assessed by using optimism pessimism scale and a brief resilience scale. Digital survey method was adopted to reach out to the university students between 18-23 yrs. of age group and Pearson correlation coefficient method was used to establish the relationship between the variables. As a result, it was found that optimism and resilience share a positive relationship (0.507) not only otherwise but in the challenging times too. Findings revealed that to increase the resilience one has to increase the positive and optimistic thoughts. The research can add value to the detailed study on optimism and its relation with resilience and psychological well-being during unforeseen period. This study also gives further opportunity for a comparative study between the optimism and resilience among different age groups.

Keywords: *Optimism, Resilience, COVID-19, Pandemic, Positive Psychology*

The pandemic of COVID-19 posed a different range of challenges and adjustments for the entire world. Many countries had to take harsh steps to safeguard the life of their citizens and for that they imposed complete lockdown on their citizens, just like India. More than two months' lockdown created many challenges and uncertainty in the life of entire population of the country. They all were bound to live inside their houses and unable to socialize even with their close friends due to social distancing. The word social distancing itself is a challenge for everyone because human being is a social animal. All these challenging situations created many mental health problems (stress, anxiety, fear, anger, depression etc.) among the entire population. In recent years, Psychological wellbeing is the one of the important concerns for the entire population of the globe. Lately, people have started paying adequate amount of attention towards psychological well-being and are also taking help from mental health professionals to resolve their concerns obstructing their mental health. As population is concerned about physical as well as psychological health, the present scenario (COVID-19) is a contributing factor which affects the health of every individual. In this uncertain situation where the entire world's population is trying to adjust

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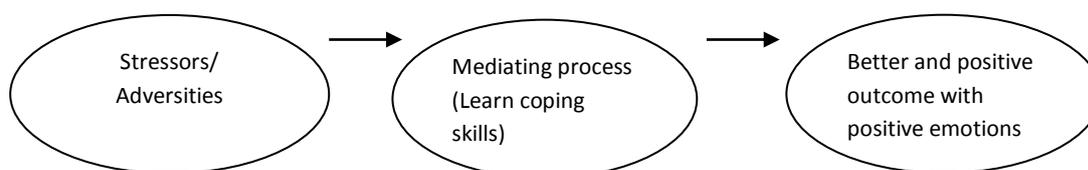
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with the new normal, it has also challenged Resilience and Optimistic outlook of every individual and therefore it is important to study effect of the pandemic on such attributes of human psyche.

In general, Optimism is positive mental attitude towards life, it is also a hope that individual will experience positive outcomes in the future (Scheier & Carver, 1985). Optimism is also a form of positive thinking that includes the belief that present happiness and good things which will happen in the future. Optimism is the extent to which individuals expect desired outcomes to happen in the future, and expect undesired outcomes not to happen. It can soothe people's worries and doubts in a difficult situation and encourage continued striving toward goals (Bailis & Chipperfield, 2012). There are two components which define Optimism: "learned Optimism" (Peterson & Seligman, 1984) and "dispositional optimism" (Scheier & Carver, 1985). Learned Optimism considers that an individual can cultivate a positive perspective towards the stressful event. On the other hand, Scheier and Carver (1985) define dispositional optimism as a general belief that good things will happen rather than bad things in the future. Further, Optimism can be realistic Optimism as well as unrealistic Optimism. In literature, unrealistic optimism can be detrimental for future since it may result in lack of efforts whereas realistic optimism differs due to amount of efforts invested in it.

The ability to adapt with life-changing and stressful situations is called Resilience. Optimistic and positive outlook towards life empowers individual to face reality and challenges posed by life, this attitude also known as Resilience. The term Resilience usually refers to positive adaptation in adversity. As defined by Luthans (2002) Resilience is "the developable capacity to rebound or bounce back from adversity, conflict, and failure or even positive events, progress, and increased responsibility". According to Luther et.al., (2000) Resilience is a dynamic process that encompasses positive adaptation within the context of significant adversity. In other words, psychological Resilience is one's capacity to respond to the negative or unfavorable situation in adaptive manner. Literature also supports that resilience can be inculcated through practice and training (Bonanno, 2005, Masten, 2001 and Masten & Reed 2002). Optimism makes an individual more resilient so that when the adversities knocked down one's life and the person has optimistic approach towards life then he/she will definitely bounce back at least as strong as before. Resilience is affected by interactions and the environment in which an individual live. Resilience helps an individual to handle stress in more positive manner. Developing resilience is a very personal process, each individual react differently towards stress and traumatic situation. To increase resilience an individual needs a good support system, **positive relationships**, a good **self-image** and a **positive attitude**.

Resilience as a process



Resilience as an outcome- Resilient

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The global pandemic of COVID-19 led to psychological challenges due to unpredictable growth of virus, paucity of treatment, social distancing, restriction on outdoor access and other innumerable factors. The lockdown as a step to control the spread of virus led to wellbeing challenges and sudden loss of services to those in need. This also led to rise in insecurity and uncertainty of life among people which pressurized their coping mechanisms. The situation also tested resilience and optimistic outlook particularly of the young generation aged 18-23 Yrs., since their future is yet to be explored. It has majorly affected the younger population because they are already leading a stressful life due to performance pressure, excessive exposure of digital media and thriving with new learning in every area of life. To cope with this situation, their Optimistic approach and Resilience plays a greater role, so these two important aspects of positive psychology gave a vast vision to the researches to conduct present research in this time of pandemic. This present study was devised to test their psychological Optimism and Resilience in such unprecedented times. The aim of the study was to determine the level of Optimism and Resilience among the University students during the COVID-19 times as well as to analyze the relationship between the two variables during challenging times.

Several studies prove a positive relationship between Optimism and Resilience in general. Souri & Hasanirad (2011) proved predictive relationship between Resilience and Optimism among medical students. Resilience also has a positive relationship with aging and has proven to be positively related to successful aging (Lamond et.al. 2008). According to Collins (2008) research Positive emotions like Optimism and hope affect resilience of social workers. In a longitudinal study on war prisoners, it was observed that Optimism and Resilience are close constructs and relate well with survival (Segovia et. al.2012). He et.al. (2013) revealed positive relationship between dispositional Optimism and psychological resilience with subjective well-being among patients of burn. Riolli, Savicki and Cepani (2006) studied Optimism, personality and coping styles during Kosovo crisis (1999) and found out that Resilience had relations with higher optimism. Malik (2013) concluded in his research on Hope, Optimism and Resilience at workplace that Optimistic explanatory style is related to range of positive characteristic including Resilience.

Covid-19 has inspired many researchers in India as well as worldwide for researches based on psychology. One such study on prevalence of internet addiction on Indian population was conducted by Prakash, Yadav and Singh, (2020) in which researchers found out that during the lockdown imposed to curb down COVID-19, prevalence of psychological problems such as internet addiction increased. In another study on MBA students about anxiety, depression and stress levels during COVID-19 outbreak, it was found that depression was about 43% among the students. The same study also found that main reasons for depression were mental tension, career and negative psychology apart from economic turndown, financial issues, future life, social distress, satisfaction in life and revoked job offers (Dr. Satpathy & Ali, 2020). A psychological study conducted on Turkish adults reveals that the corona virus stress had a significant predictive effect on optimism-pessimism, psychological flexibility and psychological problems (Arslan et. Al. 2020). A different ex-post facto study on COVID-19 positive patients about the psychological distress and perceived social support proves negative correlation between psychological distress and perceived social support (Vishnupriya & Sudarshan, 2020). A study on psychological perspective during COVID-19 with focus of resilience demonstrates that vast majority of individuals are resilient and it is outcome of combination of resilience factors including exposure severity, individual differences, family context and community characteristics (Chen & Bonanno, 2020). A

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study on Indian as well as foreigner population about resilience and death anxiety indicates no significant difference between resilience and death anxiety of the Indian and foreign nationals as well as among males and females (Kirthiga, 2020). Many researchers studied different psychological factors and impact of COVID-19 on it, but the relationship of Optimism and resilience was rarely researched.

The current study was planned at a crucial timeframe of a pandemic called as COVID-19. The researchers are intending to study the relationship between Optimism and Resilience among the university students. The time factor was auto-controlled since the entire population of India was under lockdown as a measure to control the spread of virus. Considering the above mentioned factors, the objectives of the research as selected by researchers were:

1. To study the level of Optimism and Resilience among the university students during COVID-19 Pandemic.
2. To study the level of Optimism and Resilience among the male students during COVID-19 Pandemic
3. To study the level of Optimism and Resilience among the female students during COVID-19 Pandemic
4. To study the relation between Optimism & Resilience among the university students during COVID-19 Pandemic.
5. To study the relation between Optimism & Resilience among the male university students during COVID-19 Pandemic.
6. To study the relation between Optimism & Resilience among the female university students during COVID-19 Pandemic.

Hypothesis

(H₀) The COVID-19 pandemic does not affect the relation between Optimism and Resilience among university students.

(H₁) The COVID-19 pandemic affects the relation between Optimism and Resilience among university students.

METHODOLOGY

Sample

A sample of 100 respondents (Males: 36, Females; 64) was selected through random sampling from different states of India which include: Gujarat, Rajasthan, Delhi, Uttar Pradesh, Maharashtra, Bihar, West Bengal. The age of the selected sample was between 18 to 23 years and all the participants were university students. It was ensured by the researchers that all the subjects were selected with the random sampling method that had been part of the lockdown during COVID-19 pandemic. All the subjects were informed about the research through online platform so the objectivity was maintained and all the efforts were made to avoid the personal bias in selection of subjects.

Tools

1. **Brief Resilience Scale:** The Brief Resilience Scale (BRS), developed by Smith et al. (2008), was assessing individuals' ability to bounce back and recover from stressful circumstances. The Brief Resilience Scale scores showed adequate reliability (internal consistency $\alpha=.83$, and test-retest ICC=.69). The Scale also showed adequate evidence of the scores' convergent, concurrent and predictive validity. The six items of the brief resilience scale (BRS) from which Items 1, 3, and 5 are positive

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statements, and items 2, 4, and 6 are negative statements. All six items were to be answered on a 4-point rating scale ranging from strongly disagree to strongly agree. The following instructions were used to administer the scale: "Please indicate the extent to which you agree with each of the following statements by using the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree." Positive items were scored as 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree and reverse coding for negative items as 5 = strongly disagree, 4 = disagree, 3 = neutral, 2 = agree, 1 = strongly agree. The total score may range from 6 to 30. High score on the scale indicates high Resilience.

- 2. Optimism Pessimism Scale:** OPS was developed by Dember et al. (1989), from which separate tendencies regarding optimism and pessimism should be measured separately. The OPS is considerably longer than the measures just described, with 18 items reflecting optimism, 18 items reflecting pessimism and 20 fillers. Items are chosen based on a four-point Likert scale that ranges from "strongly agree" to "strongly disagree". The OPS is based on the view that a person can be both optimistic and pessimistic, but at varying degrees. Validity and reliability for the OPS have found alpha coefficients of $r = .94$ for the optimism scale and $r = .86$ for the pessimism scale. Test-retest reliability after two weeks was $r = .75$ for optimism and $r = .84$ for pessimism (Dember & Brooks, 1989; as cited in Burke et al., 2000).

Procedure

The present research was conducted to study the relationship between Optimism and Resilience in the times of COVID-19. As this is time-based study, lockdown and physical distancing was imposed due to COVID-19 and to fulfill the purpose, Brief Resilience Scale and Optimism Pessimism Scale were administered on 100 University students from all over country with the help of digital platform. Reassuring regarding confidentiality and establishing proper online rapport with them specific instructions were given. In both the scales (Brief Resilience Scale and Optimism Pessimism Scale), the subjects were asked to select any one of the four responses per statement which best represented their response, on the basis of their thoughts. It was also ensured that each subject has responded all items. The scoring was done as per the scoring patterns prescribed by their authors and manuals. The obtained data were subjected to statistical analysis using Microsoft Excel. The Mean and SD was calculated for both the variables (Optimism and Resilience). Pearson correlation coefficient was calculated to find the correlation between both the variables and t-value was computed to find out the level of significance of coefficient.

RESULTS AND DISCUSSION

As reported earlier, the present investigation aimed to study the level of Optimism and Resilience among the University students during the COVID-19 times as well as to analyze the relationship between the two variables during challenging times among male and female participants. The relationship between Optimism and Resilience was explored through use of 2 questionnaires called Brief Resilience Scale (BRS) and Optimism-Pessimism Scale (OPS). The scores on Brief Resilience scale and Optimism Pessimism Scale were obtained by the subjects and the same were statistically calculated to find out the relationship between these two variables.

The result, in Table 1, depicts that 't' value was not found significant on both the variables. It showed that there is no significant difference between the mean scores of both the variables.

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Table 1: Mean and Standard Deviation of the University students on two variables

Variables	N	Mean	SD	t value	P
Optimism	100 (Males: 36, Females: 64)	155.63	21.08	1.21	>0.05
Resilience	100 (Males: 36, Females: 64)	18.63	4.57		

Table No. 2, depicts that ‘t’ value of female subjects was not found significant on both the variables. It showed that there is no significant difference between the mean scores of both the variables.

Table 2: Mean and Standard Deviation of the Female University students on two variables

Variables	N	Mean	SD	t value	p
Optimism	64	153.92	20.77	1.99	>0.05
Resilience	64	18.04	4.55		

Table No. 3, depicts that ‘t’ value of male subjects was found significant on both the variables. It showed that there is significant difference between the mean scores of both the variables.

Table 3: Mean and Standard Deviation of the Male University students on two variables

Variables	N	Mean	SD	t value	p
Optimism	36	158.66	21.57	5.54	<0.05
Resilience	36	19.66	4.49		

The correlation was computed using Pearson correlation formula on 100 responses filled by University students. Table 4 shows significant positive correlation between two variables i.e. Optimism and Resilience even in the challenging times among university students. It also shows significant positive correlation between Optimism and Resilience even in the challenging times among male and female university students. The result proves that increased Optimism can result into high levels of Resilience and high levels of Resilience will be stemming from good levels of Optimism in both genders. The result proved the H₀ hypothesis stating the COVID-19 pandemic does not affect the relation between Optimism and Resilience among university students.

Table: 4 Correlation between two variables

Variables	N	r	p
Optimism- Resilience	100	0.563	<0.01
Optimism(M)- Resilience(M)	36	0.587	<0.01
Optimism(F)- Resilience(F)	64	0.539	<0.01

The present research centered on the relationship between Optimism and Resilience in the times of COVID-19. The high scores on Optimism and Resilience prove that even in the unprecedented times of pandemic, the youth of India maintains its Optimistic approach towards life which helps them sustain Resilience and fight back the situation. It can also be said that COVID-19 or even the psychological impact of Lockdown hasn’t affected the psyche of the university students in negative manner which helps them sustain the resilience. The null hypothesis was accepted stating that COVID-19 does not affect the levels of

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Optimism and Resilience among university students. The study also concludes that the male and female participants show a positive relationship between Optimism and Resilience during the pandemic.

The result on the Optimism-Pessimism scale suggests that most of the research population obtained scores which can be considered as high score on the OPS. This also means that the university students are very optimistic towards their future even under the situations of Pandemic and consistent lockdown for more than two months. This positive attitude can be attributed to the passage of time as the study was conducted after almost two months of pandemic breakout. The adaptability, perception of the situation, compassion and belongingness changed and affected the sample during this time. The effect of lockdown faded away considerably as the time frame kept increasing which also gave population enough time to adjust with the psychological impact of the same. Accordingly, adaptive ability of an individual also plays a vital role as increased levels of adaptability helps one adjust better with the situations. The perception of the situation as boon rather than bane also adds to positive attitude and better adjustments. Compassion towards the underprivileged families may also lead to gratefulness and inevitably to positive attitude. The feeling of belongingness that the entire world is suffering from the same concerns also acts as a psychological relief for some individuals as it gives them hope towards future as population can fight it back together. The government also played an important role in enhancing hope and optimism towards the current circumstances with regular address by the Prime Minister to the nation, 24X7 helpline services, introduction of an app to identify Corona positive patients around etc. The digital media and OTT platforms have also been keeping the youth entertained constantly by release of new titles on regular basis which keeps them busy and engaged, providing less opportunity to think about the negatives. The strong support and constant encouragement by mental health professionals also helps young population to develop optimistic approach towards life in times of pandemic.

The results on the Brief Resilience Scale reveal higher than average scores. The score indicates high level of Resilience among the university students which can be credited to Optimism, hope, values and cultural impact. High levels of Resilience stemming from specific factors may act as a 'Breather' for an individual which may help 'sustain' in the difficult situation and at last 'restore' and replenish the resources. The expectation of better tomorrow also leads to hopeful perception of the future and motivation to adjust today. The young population has opted for a realistic perception of the ongoing lockdown situation as an opportunity to explore their passion and work towards betterment of oneself for future prospects. The process of self-development keeps the youth engaged to such an extent that it gives them less opportunity to whine which leads to better adjustment with the situation and improved Resilience. In these difficult times when fear is emerging due to the increasing number of the COVID-19 cases, young population still has hope that everything will be fine eventually. This hope itself gives optimism and optimism is an important characteristic of resilient person. In today's time when the life is very fast and nobody has time to look back, the time of pandemic gave a break to everyone to reflect and develop a strong bond with their family members. When an individual is trying to work towards a strong relationship with their loved ones' emotional bonding improves and person imbibes empathy and turns Resilient automatically. In this time of pandemic, everyone develops coping skills to deal with this adversity and/or stressful situations. The individual's value system can also play an important role in the factor of Resilience, wherein the individual weighs the situation ethically and faces it on the basis of the lessons learnt in childhood. The overall culture and

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the society's reaction to the Pandemic also play a crucial role in shaping once Optimism and Resilience universally.

The present research discovered strong positive relationship between Optimism and Resilience among University students during the unprecedented times (COVID-19). The study is backed by He et. al (2013) on burn patients, it was observed that Resilience played role of a mediator between Optimism and subjective well-being. It has also been proven in a longitudinal study by Sagovia et. al.(2012) on war prisoners that Optimism is the strongest predictor of Resilience. They also mention that both the factors seem to have a causal relationship between the two and therefore Optimism leads to Resilience and Resilience will lead to Optimism. It can also be inferred that improved level of resilience adds positivity to one's self esteem that he/she can face any given situation in future as well since they have successfully dealt with current problematic situation. This assumption can be deduced to saying that high level of Optimism withdrawn from one's self esteem adds to ones' self-efficacy to deal with certain situation resulting in improved levels of Resilience. The 6 widely known factors of resilience include Self-esteem, Self-efficacy, Optimism, positive affect, social support and life satisfaction. Value of character strength also adds to the resilient outlook towards life. In a model called as 'broaden and build' proposed by Frederickson (2001) and Tugade & Frederickson (2004), researchers have associated positive emotions with psychological resilience in a way that positive emotions broaden the individual's focus and behavior repertory. As a result of this, an individual builds physical, psychological and social strength to face the stressful situation. With more flexibility, creativity and openness to thoughts and solutions, coping and thriving eases out. Likewise, according to Souril and Hasanirad (2011), there is an interactive relationship between Optimism and Resilience and the strong relationship of the same can be attributed to factors such as cultural and religious values. It can also be said that religious practices help one believe in the meaningfulness of life which leads to improved Optimism and therefore improved resilience. In a separate study by Niu et. al (2015) on depression, Optimism and Resilience of Chinese adolescents, it was found that the Optimism and Resilience is positively related to each other but are negatively related to depression which can be ascribed to the religious practices. Other biological factors like circadian typology are also closely associated with both Resilience and Optimism in a research by Antunez, Novarro and Adan (2015). In a different research on relation between Resilience and Conditioned Pain Modulation, it was found that optimism plays mediating role between Resilience and Conditioned pain Modulation (Thompson et.al. 2018). On the basis of above-mentioned research, it can be said that one's tolerance threshold also plays an important role in determining a relationship between Resilience and Optimism.

The present study also focused on effect of Pandemic called as COVID-19 among the male and female participants on the variables of Optimism and Resilience. The result proves high positive correlation between the genders on Optimism and Resilience as outcome of COVID-19 pandemic. Different correlations between male and female participants were also calculated between Optimism and Resilience. When the correlation was compared between male and female participants, it was found to be little higher as compared to the female participants. The results indicated that there is no significant difference in the score of female population but the statistical calculation of 't' score depicts difference between the scores of male participants. The scores obtained by male participants even after showing positive correlation are significantly different. This result can be attributed to the less number of male participation in the study. Other researches also show similar and mixed

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result when gender was also studied as a factor but rarely had been studied during a global crisis. In a study by Werner (1985), he reported higher levels of resilience in girls as compared to boys. A study by Fergusson, Horwood and Swain-Campbell (2003) postulated that the females showed greater resilience to externalizing responses whereas the males showed greater resilience to internalizing responses such as anxiety, depression. Various studies conclude mixed results on the basis of gender and Optimism and resilience. A 2007 study by Dumont, Widom and Czaja proposed that females show greater resilience while another study in the same year by Puskar et. al. (2007) revealed that males have greater resilience. In a recent study by Splan, Brooks, Porr, and Broyles (2011) on 100 adults clearly indicated that gender differences were not significant and there was no effect of gender on level of resilience.

Implication of present study lies in recognizing effect of COVID-19 pandemic on the relationship between the two most important postulates of positive psychology which are Optimism and Resilience. It can add value to the detailed study on Optimism and its relation with Resilience and psychological well-being during unforeseen period. To develop the study further, researchers can also develop a model for university students while understanding psyche of young adults and empowering them for personal and professional growth in such unprecedented times. The study also opens doors for further research like comparative study among different age groups. The basic causal factors behind the current findings can also be studied in detail to know the reasons behind the positive outlook and Resilience among the sample taken for the study.

CONCLUSION

To conclude, the present study signifies strong positive correlation between Optimism and Resilience during the challenging time of pandemic among the University students. The results also indicate positive correlation between the performance of genders on Optimism and Resilience. Optimism is positive outlook towards life and Resilience is ability to bounce back in adverse situations. The relationship can be attributed to many factors like cultural and religious values, pain tolerance, self-efficacy and self-esteem etc. Yet, the current study also has limitation of the 'Principle of individual differences' (level of education, economic background, psychological well-being and current stress levels). In spite of all this, the research proves to be a pioneering stone in the study of variables during unprecedented times and therefore can be utilized as base to many further studies on Indian population. The research also revealed that the psychological well-being of the university students doesn't only depend on the external incidences but on the internal constructs of personality as well.

REFERENCES

- Antúnez J.M., Navarro J.F., Adan A. (2015). Circadian typology is related to resilience and optimism in healthy adults. *Chronobiology International*, 32(4), 524-530.
- Arslan, G., Yıldırım, M., Tanhan, A. et al. Coronavirus Stress, Optimism-Pessimism, Psychological Inflexibility, and Psychological Health: Psychometric Properties of the Coronavirus Stress Measure. *Int J Ment Health Addiction* (2020). <https://doi.org/10.1007/s11469-020-00337-6>
- Bonanno, G. A. (2005). Resilience in the Face of Potential Trauma. *Current Directions in Psychological Science*, 14(3), 135–138.
- Burke, K.L., Joyner, A.B., Czech, D.R. et al. (2000). An investigation of concurrent validity between two optimism/pessimism questionnaires: The life orientation test-revised and the optimism/pessimism scale. *Current Psychology*, 19, 129–136.

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- Chen, S., & Bonanno, G. A. (2020). Psychological adjustment during the global outbreak of COVID-19: A resilience perspective. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(S1), S51-S54. <http://dx.doi.org/10.1037/tra0000685>
- Collins, S. (2007). Social workers, resilience, positive emotions and optimism. *Practice, Social work in action*, 19(4), 255–269.
- Dember, W. N., Martin, S. H., Hummer, M. K., Howe, S. R., & Melton, R. S. (1989). The measurement of optimism and pessimism. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, 8(2), 102-119.
- DuMont, K. A., Widom, C. S., & Czaja, S. J. (2007). Predictors of resilience in abused and neglected children grown-up: The role of individual and neighborhood characteristics. *Child Abuse and Neglect*, 31, 255-74.
- Fergusson, D. M., Horwood, L. J., & Swain-Campbell, N. R. (2003). Cannabis dependence and psychotic symptoms in young people. *Psychological medicine*, 33(1), 15-21. <http://dx.doi.org/10.1017/S0033291702006402>
- 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.
- He, F., Cao, R., Feng, Z., Guan, H., & Peng, J. (2013). The impacts of dispositional optimism and psychological resilience on the subjective well-being of burn patients: a structural equation modelling analysis. *PloS one*, 8(12), e82939.
- Kirthiga H.J (2020). Influence on resilience and death anxiety during COVID-19 lockdown for Indians and foreigners. *International Journal of Indian Psychology*, 8(2), 93-103. DIP:18.01.212/20200802, DOI:10.25215/0802.212
- Lamond, A. J., Depp, C. A., Allison, M., Langer, R., Reichstadt, J., Moore, D. J., Golshan, S., Ganiats, T. G., & Jeste, D. V. (2008). Measurement and predictors of resilience among community-dwelling older women. *Journal of psychiatric research*, 43(2), 148–154.
- Luthans, F. (2002). The need for and meaning of positive organization behavior. *Journal of Organizational Behavior*, 23(6), 695–706.
- Luthar, Suniya & Cicchetti, Dante & Becker, Bronwyn. (2000). The Construct of Resilience: A Critical Evaluation and Guidelines for Future Work. *Child development*, 71, 543-62.
- Malik A. (2013). Efficacy, Hope, Optimism and Resilience at Workplace – Positive Organizational Behavior. *International Journal of Scientific and Research Publications*, 3 (10), October 2013, ISSN 2250-3153.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227–238.
- Masten, A. S., & Reed, M.G. J. (2002). Resilience in development. *Handbook of positive psychology*, In C. R. Snyder & S. J. Lopez (Eds.), Oxford University Press, 74–88.
- Newall, N. E. G., Chipperfield, J. G., Bailis, D. S., & Stewart, T. L. (2013). Consequences of loneliness on physical activity and mortality in older adults and the power of positive emotions. *Health Psychology*, 32(8), 921–924.
- Niu, G.-f., Fan, C.-y., Zhou, Z.-k., Tian, Y., & Lian, S.l. (2015). The effect of adolescents' optimism on depression: The mediating role of resilience. *Chinese Journal of Clinical Psychology*, 23(4), 709–711.
- Peterson, C., & Seligman, M. E. (1984). Causal explanations as a risk factor for depression: Theory and evidence. *Psychological Review*, 91(3), 347–374.
- Prakash S, Yadav J S & Singh T.B. (2020). An online cross-sectional study to assess the prevalence of Internet Addiction among people staying at their home during

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- Lockdown due to COVID-19. *International Journal of Indian Psychology*, 8(3), 424-432. DIP:18.01.052/20200803, DOI:10.25215/0803.052
- Puskar, K.R. and Marie Bernardo, L. (2007), Mental Health and Academic Achievement: Role of School Nurses. *Journal for Specialists in Pediatric Nursing*, 12: 215-223. doi:10.1111/j.1744-6155.2007.00117.x
- Riolli L., Savicki V., Cepani A. (2002). Resilience in the Face of Catastrophe: Optimism, Personality, and Coping in the Kosovo Crisis. *Journal of Applied Social Psychology*, 32 (8), 1604-1627.
- Satpathy. B & Ali. E (2020). A study on psychological well-being of final year management students during COVID-19 pandemic lockdown in India. *International Journal of Indian Psychology*, 8(2), 1-25. DIP:18.01.121/20200802, DOI:10.25215/0802.121
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4(3), 219–247.
- Segovia, Francine & Moore, Jeffrey & Linnville, Steven & Hoyt, Robert & Hain, Robert. (2012). Optimism predicts resilience in repatriated prisoners of war: A 37-year longitudinal study. *Journal of traumatic stress*, 25, 330-6.
- 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.
- Splan, Rebecca & Brooks, Ryan & Porr, C. & Broyles, Thomas. (2011). Resiliency and Achievement Goal Orientation among Agricultural Students. *NACTA Journal*. 55. 31-38.
- Souri, H., & Hasanirad, T. (2011), Relationship between Resilience, Optimism and Psychological Well-being in Students of Medicine. *Procedia – Social and Behavioral Sciences*, 30, 1541-1544.
- Thompson, K. A., Bulls, H. W., Sibille, K. T., Bartley, E. J., Glover, T. L., Terry, E. L., Vaughn, I. A., Cardoso, J. S., Sotolongo, A., Staud, R., Hughes, L. B., Edberg, J. C., Redden, D. T., Bradley, L. A., Goodin, B. R., & Fillingim, R. B. (2018). Optimism and Psychological Resilience are Beneficially Associated with Measures of Clinical and Experimental Pain in Adults with or at Risk for Knee Osteoarthritis. *The Clinical journal of pain*, 34(12), 1164–1172.
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient Individuals Use Positive Emotions to Bounce Back from Negative Emotional Experiences. *Journal of Personality and Social Psychology*, 86(2), 320–333.
- Van Breda, A.D. (2018) Critical review of resilience theory and its relevance for social work. *Social Work*, 54(1), ISSN 2312-7198 (online).
- Vishnupriya S, Sudarsan. A (2020). Psychological distress and perceived social support among young adults during COVID-19. *International Journal of Indian Psychology*, 8(2), 26-31. DIP:18.01.202/20200802, DOI:10.25215/0802.202
- Werner, E. E. (1984). Resilient children. *Young Children*, 40, 68–72.

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Conflict of Interest

The author declared no conflict of interest.

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