

Research Paper

Dispositional Optimism and Perceived Stress Among Students

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ABSTRACT

Dispositional optimism is the tendency for individuals to always expect positive outcomes. Perceived stress is the degree of stress individuals feel based on their situation and experiences. The aim of the current study was to understand the relationship between Dispositional Optimism and Perceived Stress and their differences between male and female students pursuing high school, under graduate, and post graduate education. The sample consisted of 180 students (90 males and 90 females; 60 each from the three educational groups). Data collection was conducted by snowball sampling technique. Life Orientation Test Revised (LOT-R) and Perceived Stress Scale (PSS-10) were used to measure dispositional optimism and perceived stress, respectively. IBM SPSS version 22 was used for statistical analysis of the data, which included Spearman rank correlation, Mann-Whitney U test, and Kruskal-Wallis test. The results showed a strong negative correlation between dispositional optimism and perceived stress. Females showed higher degrees of perceived stress than males, whereas no significant gender difference was found in dispositional optimism. High school students were found to have more dispositional optimism than post graduate students than under graduate students, while difference among the three groups in perceived stress was insignificant.

Keywords: *Dispositional Optimism, Stress, Students*

Fink, G. has stated the definition of stress as given by Selye as the “perception of threat, with resulting anxiety discomfort, emotional tension, and difficulty in adjustment” (Fink, 2010, p.5). Stress is widely recognized as two namely, eustress and distress, as termed by Hans Selye. Lazarus (1966) defined stress as the relation between the person and the current environment. Stress occurred when the relation was perceived as personally significant and challenging the available resources for successful coping strategies (Folkman, 2013). Thus, not only biological, but also psychological and cognitive factors have an impact on the perception of stress. Dispositional optimism could be termed as the idea held by an individual that they can most likely achieve their desired objectives or targets. According to Scheier and Carver (2018), it is the generalized, relatively stable tendency to expect good outcomes across important life domains. Student life involves having task demands and associated responsibilities which could make study phase stressful to them. They also have goals they would want to achieve and look forward to having a definite and positive outcome towards the end.

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Dispositional Optimism and Perceived Stress Among Students

Many among the post-graduate students are those who are getting ready to step out into the career life, with some already interning and working, mostly as part of gaining experience. This transitional phase from college life to a line of occupation is one that is, a lot of times, accompanied by uncertainty. The shift from being under-graduate student to a post-graduate student is also one that includes increased responsibility and target, as to what they want to achieve in life. It is one that demands longer study hours, gaining competence and mastery in their respective fields, and also having a social life. This could influence the physical and mental functioning of the individual involved based on their outlook towards their situations. From high school to under graduation to post graduation, the level of difficulty and challenges increase with increase in the responsibilities and nature of course and its complexity.

Time constraints, financial constraints, parental demands and disputes, interpersonal tensions, managing independence, peer and academic pressure, and the adjustment period to a new academic setting are all components of the struggle. Stress is one among the emotional disturbances these factors can cause (Das & Sahoo, 2012, p.1). Being worried about academics and success is a part of students' academic phase.

Various studies have shown that women experience greater degrees of stress in comparison to men. The results of a study to understand the gender differences in perceived stress levels and coping strategies among college students, by Anbumalar et. al (2017), found that females had increased levels of stress compared to male undergraduate students. The findings also revealed that male students are more likely to use better stress coping strategies than their female counterparts.

In the results of a study by Guruprakash et. al (2018), perceived stress had an association with increased scores on general psychopathology and burnout. Postgraduate students who used effective coping mechanisms reported having lesser perceived stress. In terms of psychopathology and perceived stress, females scored higher. Similar results were obtained in another study by Varghese et al (2015) that reviewed researches done worldwide with a focus on how perceived stress among college students affects academic achievement and further success. The review discovered that low academic performance and high perceived stress go hand in hand. Researchers discovered that female students experience higher levels of stress and more health issues.

Students, who are getting ready to have themselves set in a stable position, look forward to achieving their goals and ambitions. They work through the everyday demands of school and college life and hardships, to attain a positive outcome in their career and lives. It is important to know how different individuals perceive events, and how a long-term expectancy for positive results affect the adjustment to the stressors or stressful events. Yu et al (2015), in their study found that rumination was positively correlated with anxiety and that dispositional optimism was negatively correlated with anxiety. The results of another study done by Pacheco and Kamble (2016) on undergraduate students in Goa, to understand the relationship between optimism in stress and coping, found that optimism and stress had a moderately negative association. Similar findings were seen in a study by Shaheen and Jahan (2014), among 200 adolescent students, to determine the relationships between stress and optimism and suicidal ideation, the results indicated strong negative relationship between optimism and suicide thoughts. In addition, males exhibited higher levels of pessimism and suicide thoughts than did girls, and stress and optimism predicted suicide

Dispositional Optimism and Perceived Stress Among Students

thoughts. The relationship between stress and suicide ideation was much worsened for pessimistic adolescents than for optimistic adolescents.

In the study that investigated the role of optimism together with gender, on students' perception of academic stress, by Huan et al (2006), a significant negative relationship between optimism and academic stress was found in the students. Also, the study revealed that gender was not a significant predictor of academic stress.

Need and Significance of the study

The current study attempts to better understand how optimistic high school, undergraduate, and graduate students are about their futures and how this relates to their perception of stress. Today's world being its competitive self, there is a constant struggle for the students to achieve success and maintain a healthy balance between their well-being and aspirations. In the present scenario, students put in their best efforts to achieve their ambitions and could be under a great deal of stress, which could in turn affect their mental health and abilities to strive their best. As various studies have found that optimism has a relationship with stress, it is necessary that students develop an optimistic attitude towards their future, that could influence their motivation level and perception of stress. Therefore, it is necessary to measure the levels of dispositional optimism and perceived stress in students to help further understand about the various effective mechanisms to deal with the stress and the attitudes they should keep while going forward in pursuit of their aspirations.

METHOD

Objectives

- To understand the relationship between dispositional optimism and perceived stress among students.
- To evaluate the difference in dispositional optimism and perceived stress between male and female students.
- To understand the difference in dispositional optimism and perceived stress among high school, under graduate and post graduate students.

Variables and Operational Definitions:

- Independent variable: Dispositional optimism. It is the generalized expectation of individuals to have positive outcomes in different aspects of their lives.
- Dependent variable: Perceived stress. It is the degree of stress individuals perceive to have as they face various task demands and life situations.

Hypotheses

- H₀₁: There is no significant relationship between dispositional optimism and perceived stress among students.
- H₀₂: There is no significant difference in dispositional optimism, and perceived stress, between male and female students.
- H₀₃: There is no significant difference in dispositional optimism among high school, under graduate and post graduate students.
- H₀₄: There is no significant difference in perceived stress among high school, under graduate and post graduate students.

Sample:

The sample for the study consisted of three categories:

Dispositional Optimism and Perceived Stress Among Students

1. High school students: includes students studying in classes between 9th to 12th.
2. Undergraduate students: includes students currently pursuing undergraduate degree.
3. Postgraduate students: includes students currently pursuing postgraduate degree.

The present study included 30 male and female students each from all the three categories. The total sample size for the study was 180. Snow ball sampling technique through referrals was used for the study.

Inclusion criteria

- High school students from 8th to 12th grade, from various Boards were included in the study.
- Students currently pursuing under-graduation and post-graduation were included in the study.
- Students pursuing their education in India were included in the study.

Exclusion criteria

- Students from countries apart from India were not included in the study.
- Students who completed their high school education, and under-graduation, but who are currently not pursuing their under-graduation and post-graduation, respectively, were not included in the study.

Tools used for the study

1. **To measure Dispositional Optimism:** This variable is measured using the Revised Life Orientation Test (LOT-R) (Scheier, Carver, & Bridges, 1994). The revised version is a 10-item, 5-point rating scale with responses ranging from “strongly agree” to “strongly disagree”, which has two items deducted from the original scale. This scale provides an understanding about how optimistic or pessimistic people view their future to be. The correlation between the original and revised scales are 0.95. The Cronbach’s alpha for the six items of LOT-R has been reported to be 0.76 on college students. A correlation of 0.95 existed between revised scale and the original scale, which shared five items in common. The scale consists of four filler items, and items 3, 7 and 9 are reverse scored. The score of the scale ranges from 0-40.
2. **To measure Perceived Stress:** The level of perceived stress among participants was assessed using the Perceived Stress Scale (PSS) (Cohen et al., 1983). The original version of the PSS had 14 items. The current study uses the 10-item version of the scale. It is a 5-point rating scale which has response options as “never”, “almost never”, “sometimes”, “often”, and “very often”, with scoring from 0-4. Items 4, 5, 7, and 8 are reversed scored. The score of the scale ranges from 0-40. The score of the scale ranges from 0-40. The scale has demonstrated an adequate level of internal consistency reliability of 0.78 and moderate concurrent criterion validity.

Procedure

The current research aims to understand the relationship between Dispositional Optimism and Perceived Stress and their differences between male and female students pursuing high school, under graduate, and post graduate education. The present study follows correlational research design. For the current study data was collected from 180 samples. Data were gathered using snowball sampling technique. By specifying the participation requirements on Google forms, the data was gathered from representative samples of the target group. To

Dispositional Optimism and Perceived Stress Among Students

collect the respondents' sociodemographic information, a personal data sheet was also included to the Google form. Additionally, informed consent was obtained from study participants. Confidentiality of the responses, and specific instructions for the scales were provided. The participants took approximately 10 minutes to complete the Google form.

Statistical Analysis

The statistical analysis of variables was done using the Statistical Package for Social Sciences (SPSS, version 22). Normality was not found in the sample and hence, non-parametric tests were done. Relationship between the dispositional optimism and perceived stress was assessed using Spearman rank correlation. The difference between genders (males and females) in the two variables involved descriptive statistics, and was tested using Mann-Whitney U test. Kruskal-Wallis test was used to find the difference in the two variables among the three categories (post-graduate, under graduate, and high school students).

RESULTS AND DISCUSSION

The current research aimed at understanding the relationship between Dispositional Optimism and Perceived Stress and their difference between male and female students pursuing high school, under graduate, and post graduate education.

H₀₁: There is no significant relationship between dispositional optimism and perceived stress among students.

Table 1: Shows Spearman Correlation between Dispositional Optimism and Perceived Stress, with mean, standard deviation, and p-value.

Variables	N	Mean	SD	1	2
Dispositional Optimism	180	13.01	3.210	-	
Perceived Stress	180	21.11	5.625	-.272**	-

** . Correlation is significant at the 0.01 level (2-tailed).

1. Dispositional Optimism. 2. Perceived Stress.

Table 1 shows the results of Spearman correlation between Dispositional Optimism and Perceived Stress from the study conducted on 180 students. From the results, it is seen that the correlation coefficient $r = -.272$, at 99% confidence interval. Therefore, H₀₁ is rejected ($r = -.272$, $p < 0.01$), which implies that there is a significant relationship between Dispositional Optimism and Perceived Stress. The findings infer that there is a strong negative relationship between the variables, that is, when Dispositional Optimism increases Perceived Stress would decrease significantly, and vice versa.

Similar results were found in a study by Joshi & Joshi (2021), where optimism was negatively correlated with perceived stress. Having an increase in generalized expectancy for positive outcomes would help individuals to stay motivated and strive harder, while being hopeful towards optimistic results. This could reduce the level of distress individuals would associate with the task demand or goal achievement.

H₀₂: There is no significant difference in dispositional optimism, and perceived stress, between male and female students.

Dispositional Optimism and Perceived Stress Among Students

Table 2: Shows Mean rank, and Sig. value of Dispositional Optimism, and Perceived Stress, between male and female students.

	Males		Females		U	Sig. (2-tailed)
	N	Mean Rank	N	Mean rank		
Dispositional Optimism	90	85.92	90	95.08	3638.000	.236
Perceived Stress	90	82.28	90	98.72	3310.500	.034

Table 2 shows the results of Mann-Whitney U test of Dispositional Optimism, and Perceived Stress, between male and female students. In dispositional optimism, the mean ranks obtained by male and female students are 85.92 and 95.08, respectively. The obtained value of U is 3638.000. The significance value obtained is greater than 0.05 (.236 > 0.05), there is no significant difference in Dispositional Optimism between male and female students.

In perceived stress, the mean rank obtained by male and female students are 82.28 and 98.72, respectively. Here, the obtained value of U is 3310.500, and the significance value obtained is lesser than 0.05 (.034 < 0.05) therefore, there is a significant difference in Perceived Stress between male and female students.

The results of the study by Joshi & Joshi (2021) has shown an insignificant difference in optimism based on gender, and that female young adults scored more on perceived stress than the young adult males. Jawad & Abdullah (2022) also found an insignificant difference between males and females in dispositional optimism in a study conducted among university students. Another study by Graves et al. (2021) also reported that females had higher stress levels in comparison to their male counterparts. Societal expectations and roles of giving more focus on family, being sensitive to the needs of others, and also the demands of the environment may contribute to the increased stress levels in females.

H₀₃: There is no significant difference in dispositional optimism among high school, under graduate and post graduate students.

Table 3: Shows Mean rank and Sig. of Dispositional Optimism among high school (HS), under graduate (UG) and post graduate (PG) students.

	HS	UG	PG	H	Sig.
	Mean rank	Mean rank	Mean rank		
Dispositional Optimism	101.98	74.42	95.10	9.215	.010

Table 3 shows the results of one- way ANOVA of Dispositional Optimism among high school, under graduate and post graduate students. The mean rank of high school students, undergraduate students, and post graduate students are 101.98, 74.42, and 95.10, respectively. The obtained H value is 9.215. Here, since the significance level, that is, 0.010 is lesser than 0.05 ($p < 0.05$), H₀₃ is rejected. Hence, there is a significant difference in dispositional optimism among high school, under graduate and post graduate students. High school students were found to have scored higher in dispositional optimism than post

Dispositional Optimism and Perceived Stress Among Students

graduate students, with a slight difference in their scores. Under graduate students were observed to have scored lesser than the other two groups.

High school students aim towards a bright future, and this stage of life could be considered as the starting point of striving towards an optimistic future. The under graduate life is one of drastic changes and uncertainties, where students might reflect and ponder on their choices and decisions, and finding a balance between shifting from adolescence to adulthood. Post graduate students could be more certain about their choices and well-versed with handling the task demands and expectations, as they are striving to make a solid stand for themselves.

H₀₄: There is no significant difference in perceived stress among high school, under graduate and post graduate students.

Table 4: Shows Mean rank and Sig. of Dispositional Optimism among high school (HS), under graduate (UG) and post graduate (PG) students.

	HS	UG	PG	H	Sig.
Perceived	Mean rank	Mean rank	Mean rank		
Stress	85.36	100.26	85.88	3.171	.205

Table 4 shows the results of one- way ANOVA of Perceived Stress among high school, under graduate and post graduate students. The mean ranks of high school students, undergraduate students, and post graduate students are 85.36, 100.26, and 85.88, respectively. The obtained value of H is 3.171. Here, since the significance level, that is, 0.205 is greater than 0.05 ($p > 0.05$), H₀₄ is accepted. Hence, there is no significant difference in perceived stress among high school, under graduate and post graduate students.

Students, as a whole, might undergo stressful situations that are comparable for their age and task demand. While some have to put in effort in paving a solid base for their future, others have to undergo a strong shift from adolescence to adulthood and deal with life demands adequately, while the others have to focus on establishing a reliable career, support family, and fulfill the social expectations. All the three groups have their own challenges and goals to be achieved, which could make it a stressful phase in their lives.

CONCLUSION

The present research concluded that dispositional optimism negatively correlated with perceived stress among students. With supporting findings, there were no differences found in dispositional optimism between genders. On the contrary, the study showed a significant difference in the level of stress perceived by the students, with females having higher scores in this variable than their male counterparts. Also, it was found that the three educational groups, namely, high school, under graduate, and post graduate students, did not have a significant difference in the level of perception of stress. On the contrary, dispositional optimism was concluded to have a significant difference among the three educational groups.

Implications

In the current competitive era of advancements and opportunities, children, from a very young age to adulthood strive to shape their future, and look forward to committing to and

Dispositional Optimism and Perceived Stress Among Students

fulfilling their aspirations. This comes with enormous responsibilities and expectations to shoulder and changes in task demands, but it is not without both the males and females of the present generation putting in their best effort, and being optimistic and enthusiastic to achieve their goals. It is necessary for educational institutions to incorporate lessons and training that builds positive attitudes in students and develop healthy coping mechanisms that could enable them to deal with the task demands and strive their best to achieve their goals.

Limitations

- In the current study, dispositional optimism was focused which could bring change to the students' perceptions of stress. Other factors such as coping mechanisms, personality factors, parental styles and support, and so on were not considered.
- Self-report questionnaires in the form of Google forms were used to collect data from the participants. Their motivation levels and lack of interest could have an influence on the results of the study.
- The study was conducted over a short span of time and therefore, it would not measure the degree of the variables among the participants for a longer duration of time.

Suggestions

Relevant research could not be found that studied the differences in the level of dispositional optimism, and perceived stress, among the three educational groups namely, high school, undergraduate, and post graduate students. Future research could be conducted to study the same.

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Dispositional Optimism and Perceived Stress Among Students

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Conflict of Interest

The author(s) declared no conflict of interest.

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