

Original Article

Child Mental Health: The role of different Attributional Styles

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Abstract

Background: High prevalence of mental health issues in the twenty-first century accounts for a lion share in the worldwide burden of disease. There is an alarming decrease in the onset of half of the mental health problems. Hence, it is necessary to explore the current situation and figure out the causes and preventive measures as well as the appropriate mental health enhancement measures. Individual characteristics, such as thinking patterns and perception, have an impact on the mental health. Attributional style is one source of 'cognitive vulnerability' which influences mental health disorders. Therefore, the present study examines whether there are any variations in the mental health of children with different attributional styles.

Methods: The current research adopted a cross-sectional research design and selected 150 school going students [74 males and 76 females] between 10-13 years of age as participants. The Child Attributional Style Questionnaire [CASQ], Satisfaction with Life Scale-Children [SWLS-C], Brief Resilience Scale, and Revised Child Anxiety and Depression Scale [RCADS] are used to gather information.

Results: The results indicated that children with a pessimistic attributional style experienced more depression and generalized anxiety than children with other two attributional styles.

In terms of gender differences in mental health, female students with pessimistic attributional style significantly differed from their counterparts on depression [$\chi^2 [2] = 10.131, p = 0.006$] and separation anxiety [$\chi^2 [2] = 6.456, p = 0.040$].

Conclusion: Attributional style seems to have a significant role in depression and anxiety in female children. Although male children did not show any statistically significant results, they were more likely to be pessimistic in terms of their attributional style, which makes them vulnerable to mental health issues.

Keywords: Attributional style, Mental health, Depression, Anxiety, Resilience, Satisfaction with life

Introduction

Mental health issues account for a major share of diseases across the globe, as opposed to a physical ailment [1]. Half of the lifelong mental health disorders have onset before the age of 14 years [2]. A good number of researches provide evidence for various mental health issues the younger generation faces [3, 4]. Meta-analytic research on child and adolescent psychiatric disorders obtained a prevalence rate of 6.46% in a sample of six community-based studies and 23.33% in seven school-based studies in India [5]. Among the numerous factors that cause or increase the vulnerability to mental health issues, the attributional style of the individual has an undeniable role.

Attributional style is one source of ‘cognitive vulnerability’ which influences mental health issues. It refers to the systematic way an individual interprets life events. Attributional styles are categorized into internal-external, stable-unstable, and global-specific or optimistic or pessimistic. Stable factors are situations that remain permanent or stable across time, whereas unstable factors are temporary and are subject to change. Individuals who attribute the cause of an event to stable factors believe that the outcome will remain the same for the

occasions that follow. Internal factors are those aspects that are related to oneself, while external factors are related to the environment. Lastly, global factors have an impact on a wide array of situations as compared to specific factors. Global attributions involve making universal explanations and generalizing an event to other dissimilar events [6].

It is noted that an individual's reaction to the situation is influenced by the "cognitive evaluation" of the situation [7], and these reactions have an impact on their distinguished ways of interpreting these events, which in turn can influence their perception, mood, and metacognition with regards to future events [8]. It was also noted that attributional style is closely associated with personality, especially extraversion and neuroticism [9], and a certain combination of personality traits increases the vulnerability of mental health issues while others take a protective role. An individual's perception of the situation is critical in understanding the impact various situations or events create on an individual. A positive attributional style in a positive and healthy environment is a better predictor of happiness, while a pessimistic attributional style in a harmful and threatening situation predicted more mental health issues than wellbeing [9].

Most of the researches indicate the importance of effective prevention strategies and building strengths rather than just treating the condition. Recently, researchers also started to look at health and mental health as constructs rather than variables. The current definition of health by World Health Organisation (WHO)-"a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" [10]- is from this perspective. The researcher who is adopting this framework understands the importance of mental health. It means the wellbeing dimension and illness dimension are taken into consideration here.

The development of depression and anxiety was reported to have a bidirectional causal relationship between negative attributional style and life events [11]. However, Craighead

and Kennedy found that the difference between anxious and depressed participants was that the former tended to assign internal, stable, and global causes to positive events as compared to the latter that assigned external, unstable, and specific causes to positive events [12]. The reformulated helplessness theory that individuals who explain negative life events to causes that are internal, stable and global are more susceptible to depression than those who make external, unstable, and specific attributions [13]. A study that examined the reformulation model prediction among eight to thirteen-year-old children found that children who displayed depressive symptoms had a tendency to explain bad events to internal, stable, and global causes, and this predicted depressive symptoms six months later [14].

In contrast to the negative dimension of mental health, there is relatively less research available on attributional style and the positive dimension of mental health, namely, resilience and life satisfaction. Martin Seligman, in his book titled, 'Learned Optimism' concluded that people with an optimistic attributional style are better able to bounce back after a setback such as a divorce, unemployment while pessimistic individuals are more prone to depression and give up quickly [15]. Further, research has found that possessing an enhancing attributional style, which involves making global and stable explanations for positive events, results in hopefulness, which ultimately decreases symptoms of depression [16]. Zhang et al. attempted to study the impact of attributional style and dispositional optimism on the subjective well-being of 384 college students in China. The results revealed a significant correlation between subjective well-being and attributional style along with dispositional optimism [17]. In another study with 212 high school students, emotional stability, and life satisfaction was mediated by causal attributions for good events [18].

There is a dearth of literature examining the role of attributional styles on children's mental health and even less literature studying children's attributional style in the Indian context.

The link between attributional style and mental health is an established one [19], but the review of research reveals that most of the studies focused on adult populations and considered mental health in terms of the absence of illness. Hence, the researchers focused on exploring the link between child attributional style and mental health [absence of illness and presence of wellbeing], which will provide some impetus in developing a mental health promotion strategy solely catering to the child population. The study was aimed to understand the relationship between attributional styles and mental health [resilience, satisfaction with life, anxiety, and depression] in children.

Methods

Hypothesis

Most of the previous researches [19] established the link between mental health and attributional style the child adopts. Therefore, we hypothesized

H₁: There will be significant variations in mental health [satisfaction with life, resilience, anxiety, and depression] across different attributional styles in children.

H₁: There will be significant variations in mental health [satisfaction with life, resilience, anxiety, and depression] across different attributional styles in children based on gender.

Research design

The current study adopts a cross-sectional research design to explore the objectives.

Participants

The child population in Goa marks a reduction from 145,968 to 144,611 in the 2011 population census compared to the previous population registration [20]. The data is gathered from 150 students from the state of Goa, India, using the purposive sampling technique. The participants consisted of 74 males and 76 females aged between nine to

thirteen years, studying in fifth to seventh grade. Children who are under psychological or psychiatric supervision were excluded from the study. Schools were the accessible spots where children were available.

Study tools

Demographic information sheet: The participants' background information such as age, gender, educational status was collected through this demographic sheet. A direct question was also included in this section to understand whether they had any physical or mental disability.

Children Attributional Style Questionnaire [CASQ] [14]. The CASQ was developed by Seligman et al. in 1984 and consisted of 48 items that determine the attributional style of children across three dimensions of stability, internality, and globality. Each item is a hypothetical event, along with two possible reasons for why that event happened. Participants are required to select any one reason, which best describes why that event happened to them. Each dimension comprises 16 items, of which half of the events are positive, and half are negative. Cronbach's alpha of .71 and .66 was obtained for good and bad events, respectively. The attributional style was found to be stable to a certain extent, as shown by consistent coefficients over a six-month test-retest interval [16].

Satisfaction with Life Scale – Children [SWLS-C]: Gadermann, Schonert-Reichl, and Zumbo in 2010 [21] adapted the Satisfaction with Life Scale developed by Deiner to make it suitable for different groups of children. The Satisfaction with Life Scale-Children comprises five items that assessed the child's life satisfaction on a five-point response scale. All five items are highly related to one another, as indicated by an inter-correlation ranging between .56 and .75. SWLS-C was found to have a Cronbach's coefficient alpha of .86 and an ordinal coefficient alpha of .90 [17]. The current study obtained Cronbach's alpha of 0.69.

Brief Resilience Scale: The Brief Resilience Scale was developed by Smith et al. in 2008 [22] and comprised a total of six items, of which half the items are positive, and the other half are negative. The responses for each item ranged from strongly disagree to agree strongly. The scale displayed good internal constancy with the value of Cronbach's alpha ranging from .80-.91[18]. The current study obtained Cronbach's alpha of 0.70.

Revised Child Anxiety and Depression Scale [RCADS]: The RCADS is a self-report measure developed by Chorpita et al. in 2000 [23] and consists of 47 items. It encompasses six subscales, which include separation anxiety disorder [SAD], social phobia [SP], generalized anxiety disorder [GAD], panic disorder [PD], obsessive-compulsive disorder [OCD], and major depressive disorder [MDD]. A four-point Likert-scale from 0 ["never"] to 3 [always"] is used for rating items. The internal consistency and test-retest reliability [over one week] of the subscale's ranges from 0.73 and 0.65 for OCD and 0.82 and 0.80 for social phobia, respectively. A score is considered to be in the "clinical" range if the T-score is 65 above for each scale [19]. The current study obtained .904 Cronbach alpha for overall scale while the subscales depression [.70] generalized anxiety [.77] and separation anxiety [.69] also obtained validity.

Operational Definitions

Attributional Style: Attributional style refers to how individuals customarily explain the cause of a negative event that has taken place. The three dimensions of attributional style are stability, internality, and globality. A positive attributional style is characterized by internal, stable, and global explanations for good events and external unstable and specific explanations for bad events. A negative attributional style is the opposite of a positive attributional style [24].

Mental Health: The present study considers mental health as the absence of illness and the presence of wellbeing. The current study considers depression and anxiety at one end of the continuum and life satisfaction and resilience at the other end of the continuum. A low score in depression and anxiety and a high score in life satisfaction and resilience indicates good mental health.

Ethical considerations

The approval of the Institutional Review Board was procured. Before conducting the research, a written institutional informed consent was taken from the Principal, and written assent was taken from the participants. Participants were given a right to withdraw from the study at any time without penalty and were assured confidentiality.

Data collection

Formal written consent from the school authorities and written assent from the participants were obtained for the data collection. The participants were briefed about the study, and participation was voluntary. The questionnaires with proper instructions were circulated among the participants, and the researcher was present at the venue during the data collection process and clarified the doubts raised by the participants.

Statistical Analysis

Once the data collection is done, data was coded correctly, and to test the hypothesis; appropriate statistical tests were administered using IBM SPSS 20 software. To check the normality and to decide between parametric and nonparametric statistics, the Shapiro-Wilk test and Kolmogorov-Smirnov test were performed. Since the data did not fulfill the assumption of normality, the non-parametric Kruskal-Wallis test was used to test the objectives.

Results

A hundred and fifty students participated in this study, of which 74 were males and 76 were females [Mean age = 11.69, SD=.891]. Across the three dimensions of attributional styles, 65 males and 52 females displayed a pessimistic attributional style; four males and five females showed an average attributional style, and five males as compared to 19 females demonstrated an optimistic attributional style. Table-1 shows the mean scores for each of the mental health variables for males and females.

Table-1: Score of mental health variables

Variables	Mean (SD)
Depression	6.97 (4.25)
Separation anxiety	4.88 (3.57)
Generalized anxiety	6.18 (4.00)
Satisfaction with life	18.61 (4.18)
Resilience	18.82 (3.06)

A Kruskal-Wallis H test showed that there was a statistically significant difference in satisfaction with life between the different attributional styles, $\chi^2 [2] = 8.678$, $p = 0.013$, with a mean rank satisfaction with life score of 71.45 for pessimistic, 65.11 for average and 99.13 for optimistic. Depression score showed statistically significant variations between different attributional styles, $\chi^2 [2] = 14.560$, $p = 0.001$, with a mean rank depression score of 82.66 for pessimistic, 48.72 for average and 50.63 for optimistic. (Table-2)

Table-2: Scores of satisfaction with life, depression, separation anxiety, generalized anxiety, resilience based on attributional style

Variable	Attributional style	N	Mean Rank	Chi-Square	<i>p-value</i>
Life Satisfaction	Pessimistic	117	71.45	8.678	.013*
	Average	9	65.11		
	Optimistic	24	99.13		
Depression	Pessimistic	117	82.66	14.560	.001**
	Average	9	48.72		
	Optimistic	24	50.63		

Separation anxiety	Pessimistic	117	78.65	3.462	.177
	Average	9	54.56		
	Optimistic	24	67.98		
Generalized anxiety	Pessimistic	117	80.48	8.844	.012*
	Average	9	41.33		
	Optimistic	24	64.04		
Resilience	Pessimistic	117	71.93	4.136	.126
	Average	9	79.61		
	Optimistic	24	91.38		

Statistically significant variations in is observed in generalized anxiety scores with respect to different attributional styles, $\chi^2[2] = 8.844$, $p = 0.015$, with a mean rank generalized anxiety score of 80.48 for pessimistic, 41.33 for average and 64.04 for optimistic. Other variables separation anxiety and resilience did not show any statistically significant differences in terms of attributional styles. (Table-2)

Table-3: Scores of satisfaction with life, depression, separation anxiety, generalized anxiety, resilience based on attributional style across different gender

Variable	Gender	Attributional style	N	Mean Rank	χ^2	<i>p-value</i>
Depression	Male	Pessimistic	65	39.71	5.818	.055
		Average	4	24.63		
		Optimistic	5	19.10		
	Female	Pessimistic	52	43.94	10.131	.006**
		Average	5	25.40		
		Optimistic	19	27.05		
Life Satisfaction	Male	Pessimistic	65	37.32	3.676	.159
		Average	4	26.88		
		Optimistic	5	48.40		
	Female	Pessimistic	52	35.51	3.676	.159
		Average	5	38.00		
		Optimistic	19	46.82		
Resilience	Male	Pessimistic	65	35.92	3.032	.220
		Average	4	46.63		
		Optimistic	5	50.80		
	Female	Pessimistic	52	36.91	1.634	.442
		Average	5	34.30		
		Optimistic	19	43.95		
Generalized Anxiety	Male	Pessimistic	65	39.23	4.330	.115
		Average	4	17.75		

		Optimistic	5	30.80		
	Female	Pessimistic	52	41.91	4.674	.097
		Average	5	23.80		
		Optimistic	19	33.03		
Separation	Male	Pessimistic	65	37.87	.622	.733
Anxiety		Average	4	40.25		
		Optimistic	5	30.50		
	Female	Pessimistic	52	42.13	6.456	.040*
		Average	5	18.40		
		Optimistic	19	33.84		

Male children did not show any statistically significant variations in depression score with reference to different types of attributional styles while female children showed statistically significant variations in depression in terms of attributional style, $\chi^2[2] = 10.131$, $p = 0.006$, with a mean rank depression score of 43.94 for pessimistic, 25.40 for average and 27.05 for optimistic. Separation anxiety also yielded similar findings, which state that female children showed statistically significant variations in separation anxiety with respect to different attributional styles, $\chi^2[2] = 6.456$, $p = 0.040$, with a mean rank depression score of 42.13 for pessimistic, 18.40 for average and 33.84 for optimistic. All other variables [generalized anxiety, resilience, and satisfaction with life] did not show any statistically significant variation across gender with respect to attributional style. (table 3)

Discussion

The current study examined the variations in child mental health [depression, generalized anxiety, separation anxiety, resilience, and satisfaction with life] with respect to attributional styles. To this end, a Kruskal-Wallis test was used to examine the differences in mental health variables across the three categories of attributional style: optimistic, pessimistic, and average.

The hypothesis stated that there would be significant variations in mental health across different attributional styles, and there will also be a significant variation in mental health

across different attributional styles based on gender. Based on the findings obtained in this study, there was a statistically significant difference in depression across the three attributional styles; however, while further exploring the results, it was found that depression in males showed no statistical significance while females were just the opposite. The current finding is in contrast to previous research conducted, which suggested that prior to adolescence, boys may have more maladaptive thinking patterns, which may result in depression being higher in boys than in girls [17]. There have been mixed results with regard to attribution theory's application with children, which may be because children's attributions develop into fairly stable styles in late childhood or early adolescence [25]. In the domain of anxiety, the findings showed no significant difference in generalized anxiety across the attributional styles. However, separation anxiety showed a difference across attributional styles; particularly, females showed a difference as compared to males. In support of this finding, prior research has found that there was a significant correlation between a pessimistic attributional style with trait anxiety and anxiety disorders [26].

Given the positive dimension of mental health, the current study found that attributional style has a statistically significant difference in the child's life satisfaction. The current finding goes in line with previous research conducted by Cheng and Furnham in 2001, which found that attribution style correlated significantly with life satisfaction in college students [18]. Further, it was also found that there was no statistically significant difference in the resilience score obtained by males and females across the different attributional styles. However, prior research indicates that people with an optimistic attributional style are better able to bounce back after a setback, while pessimistic individuals are more prone to depression and give up easily [13]. From the findings of this study, we can conclude that preadolescent girls reported more negative attributions than did preadolescent boys. Further findings of the gender differences across attributional styles showed that girls with a

pessimistic attribution style were more likely to experience depression and separation anxiety. And the mental health researches among the adults indicates females experience more mental health issues than males [27, 28, 29]; among the variable factors contributing to their mental health issues, an individual's attributional style also takes an inevitable role. Children's attribution may develop into relatively stable styles in late childhood or early adolescence and become more permanent with age. Therefore, the adoption of an enhancing attributional style in which an individual makes global and stable explanations for a positive situation is found to result in hopefulness, which ultimately decreases depressive symptoms [14]. We also need to consider the gender difference while developing enhancement programs. Thus, this study highlights the need and scope for early identification of attributional style as well as subsequent intervention in children to develop healthy attributional styles

This study's limitations, such as small sample size, less heterogeneity of the sample, less predictability [lack of normality], etc., could be considered and addressed through future research. The present study's focus was on attribution style as a whole in terms of optimistic, pessimistic, and average attributional styles. Further research can be conducted with respect to the different dimensions of attributional styles, which include internal, stable, and global, which would provide a more in-depth understanding of attributional styles. If further researchers can increase the sample size and adopt an equal size sample assignment for all the different categories, then a different finding could be obtained.

To conclude, the study identified that attribution styles have a certain impact on the mental health of children. It also shed light on a certain area that children with pessimistic attributional style are more vulnerability to depression and anxiety issues and their gender [female] increases their vulnerability. Hence identifying the attributional style in children

and helping them to create healthy mental disposition might reduce the chance of mental issues at a later point of life.

Conflict of interest: None declared

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