Research Paper

Influence of Childhood Adverse Experiences and Resilience on Self-esteem in Early Adulthood

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ABSTRACT

Students belonging to modern-day India often struggle with self-esteem issues; childhood plays a big role in influencing how individuals develop effective coping strategies that lead to a healthy self-concept later in life. This study attempts to understand how self-esteem is influenced by childhood adverse experiences and what role resilience plays in the development of self-esteem in young adults. 117 students from Christ University were tested using Wagnild & Young's Resilience Scale, the WHO's ACE-IQ Questionnaire and these were correlated with their Rosenberg's Self-Esteem scores. The study adopted a correlational design and tested the relationship between variables using Spearman's rho correlation. Linear regression was conducted between resilience and self-esteem to test for prediction. The results indicated a moderate positive correlation between resilience and self-esteem but did not show a statistically significant relationship between childhood adverse experiences and self-esteem. Regression analysis showed a prediction of approximately 30% between resilience and self-esteem indicating that resilience is a small but significant contributor in the development of self-esteem in early adulthood. The study allows an understanding of these relationships in the Indian context and paves the way for further research and the development of resilience building exercises to be implemented in the Indian educational context.

Keywords: Resilience, Self-Esteem, Childhood, Adversity, Students.

The frequency and extend of childhood traumatic experiences in India as well as most of South Asia is considerably high in comparison to other parts of the world. Be it attributed to social evils such as incest and sexual exploitation, bullying and discrimination, or political aggression. Subsequently, psychiatric epidemiological studies have proven India to score high in the prevalence of diagnosable (visible) psychological morbidities such as schizophrenia and depression as well as invisible mental problems such as suicidal attempts, violence, substance use and marital discord. Exposure to childhood trauma also influences brain physiology in a negative way by making individuals more prone to stress and promoting neuro-degenerative conditions (Duncan et al, 2015). These studies understandably categorize children to be high-risk individuals when it comes to the development of

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psychological conditions but the number of relevant researches conducted to understand the correlation between childhood adversity and trauma appear to be lax.

Theoretical Background

Adverse childhood experiences, or ACEs, are stressful or events that include abuse, trauma and neglect. These encompass household dysfunctions such as witnessing domestic abuse, drug abuse and violence (World Health Organization [WHO], 2014). ACEs can also include emotional neglect, physical neglect, parental separation, incarceration of household members and household mental illnesses. Research suggests that both chronic and acute exposure to violence, rage and adversity during childhood can proliferate the chances of internal (anxiety, depression, low self-esteem and low self-efficacy) and external (functionality, professional conduct, sociability and aggression, etc.) behavioral issues and psychological morbidities. The major consistently reported factors that proliferate positive adaptation include relationships with able and caring people, healthy cognitive growth, self-regulation skills and positive self-perception. Family is one of the major proponents of substance abuse in early adulthood (Clark, 2012), and understanding the influence of childhood on behavior can aid in understanding why individual's may turn to drug abuse later in life. Keeping this in mind, the focus of this study is shifted to the influence of childhood adversity on one specific internal behavioral process which is self-esteem. At this point, one may ask what significance self-esteem has with psychological well-being and how it is influenced by events that occur in a real-world scenario. This is discussed in the following section.

Self-esteem is the manifestation of an individual's approximated subjective emotional evaluation of his or her own worth. It is a self-judgement as well as an attitude toward the self. Self-esteem includes beliefs about oneself, (for example, "I am competent", "I am worthy"), along with emotional states, such as despair, pride, and shame (Hewitt, 2009). Although low self-esteem in itself, isn't classified as a mental illness, it's implications are unquestionable. Self-esteem is directly proportional to healthy relationships and mental well-being. Individuals with low self-esteem often succumb to poor (often abusive) personal relationships and lead to complex psychological issues. Anxiety and depression often occur as a consequence of low self-value as can the manifestation of social anxiety and reclusiveness. Self-esteem has also been found to be a contributor to academic and professional prowess as a positive appraisal of self leads to higher motivation to attain goals. Self-esteem has also been found to proliferate several eating disorders such as Anorexia nervosa. In this paper, an attempt has been made to quantitatively understand the correlation between exposure to traumatic events during childhood and self-esteem in later life – An area where research is almost non-existent, especially in the Indian climate.

In the event that childhood adversity influences self-esteem the same way that it regulates the other variables contributing to mental well-being, one may wonder, how does one aid high-risk individuals to be able to lead a better and more comprehensive life. One way of doing this would be by introducing interventions that help build coping strategies at an early age, helping these individuals build 'resilience'. Resilience is defined as an individual's ability to successfully adapt to life tasks in the face of social disadvantage or highly adverse conditions. However, it does not mean that resilient individuals are devoid of negative emotions or are overly optimistic. Rather, it indicates that over time, they have developed proper coping skills to help them deal with crises more effectively. Therefore, high levels of resilience should theoretically increase adaptability to adverse experiences and childhood troubles. It is important to study how self-esteem interacts with resilience because it acts as a major influence on an individual's ability to bounce back from a negative experience and

cope. It is possible to infer that resilience can be learned, but adequate research has not been done to understand the degree to which resilience may help an individual overcome childhood adversity.

Need for the Study

As earlier discussed, research focused on the self-esteem and resilience of the average Indian student is lax. Keeping in mind that there are several reports of childhood adversity in Indians, this study will help better understand how these variables interact with self-esteem, allowing further research to explore how student's self-esteems can be improved using exercises and consequently increase productivity and well-being in the educational setting. The key questions addressed in this research are as follows.

Research Questions
1. Is childhood adversity related to self-esteem in early adulthood?
2. Is resilience related to self-esteem in early adulthood?

REVIEW OF LITERATURE

Primarily, it is important to understand how self-esteem, resilience and childhood difficulties and adverse events interact with each other and with other relevant variables that may influence the relationships between these variables. Using relevant research articles, this section attempts to shed light on the characteristics of these variables. Self-esteem is unique to each individual and studies show that self-esteem can be influenced both intrinsically and externally. A cross-sectional study conducted in Baghdad city aimed to estimate the effect of childhood experiences on self-esteem during adulthood. (Alshawi & Lafta, 2015) Multi-stage sampling techniques were used to choose a total of 1040 participants from 13 primary healthcare centers and eight colleges. Childhood experiences were measured using the ACE-IQ test and self-esteem, using Rosenberg's SES. The findings suggest that family-related relationships are key mediators of resilience, while self-esteem is a potential outcome of resilience. Adverse childhood experiences and violence had a negatively correlated relationship with the subjects' self-esteem. This indicates that contact and interaction with high levels of violence in childhood greatly hinders the chances of having a positive outlook of the self and the world. The study acknowledges that participants may be able to deal with low levels of violence due to their resilience. From this, it can be inferred that adversities such as abuse, violence, and other transgressions can influence individuals' self-esteem negatively and thus, individuals who are exposed to unfavorable environments may have lower self-esteem than those who interact with favorable environments. A finding critical to this study offers insight on how resilience and self-esteem interact, indicating that self-esteem can be an outcome of resilience so it can be inferred that resilient individuals may prove to have higher self-esteem than those with low resilience. The study however does not attempt to statistically correlate self-esteem and resilience, leaving room for further research.

Self-esteem may also act as a mediator for depressive symptoms and other psychological conditions that are characteristic of individuals with low resilience. After all, resilient individuals display an ability to cope with challenges and ultimately are more adaptive than those suffering from psychological conditions. According a study conducted at the University of New Hampshire, self-esteem can be influenced by negative experiences and also act as an influencer of the development of psychological conditions (Turner et al, 2010). The study used the Developmental Victimization Survey to examine the effects of different forms of child victimization on changes in self-concept in a national sample of 11-18-year-old youths. The results showed that sexual victimization independently reduced self-esteem. Declines in

self-esteem appeared to partially mediate the association between sexual victimization exposure and levels of depressive symptoms. This study not only explores the influence of adversity and perceived adversity on self-concept and self-esteem, but also suggests that self-esteem has a mediating effect on the development of depressive symptoms. This makes the study extremely relevant for the current research because of its emphasis on studying the psychological implications of childhood difficulties on young adults.

Bullying is a form of adversity experienced my most youths and while there is a plethora of studies available that support the claim that individuals who experience bullying usually have lower self-esteems but it is important to note that in the current context, children are exposed to technology more than ever before and with younger patrons of social-media services and platforms, also comes the influence of a relatively new form of adversity in the form of cyber-bullying. Adopting this angle can prove to allow a better understanding of how social adversities at a younger age can influence self-esteem in individuals. A study conducted in 2010 examined the relationship between1963 middle-school student's experience with cyber-bullying and their self-esteem. It found that individuals who experienced social adversities in the form of cyberbullying both as a victim and as an offender, had significantly lower self-esteem than those without exposure to cyberbullying. This study offers an understanding of the perception of adversity in the modern context and how it influences individual's self-concepts.

A quantitative study of attachment, self-esteem and subjective well-being amongst survivors of childhood sexual trauma was conducted at the University of Illinois (Barnum & Perrone-McGovern, 2017). The research was conducted with 213 students at a Midwestern university and it was predicted that higher levels of secure attachment, lower presence of childhood trauma and high levels of self-esteem would contribute to higher levels of subjective well-being. The study focused on sexual trauma in childhood and the sexual aspects of self-esteem. The participants were tested using an online assessment system called Qualtrics where they provided brief demographic details followed by their responses to scales for attachment, childhood sexual trauma, sexual self-esteem and subjective well-being. The CTQ (Childhood trauma questionnaire) was used to measure childhood sexual trauma and the MSQ (Multidimensional Sexuality Questionnaire) for sexual self-esteem. The results showed a negative inter-correlation between the two variables, indicating a weak but inverse correlation. This sheds insight into another area of self-esteem development, suggesting that exposure to sexual exploitation and abuse at a younger age affects the way an adult individual perceives themselves in a sexual context. The negative experiences are associated with lowered sexual drives and a reluctance to form healthy relationships in adulthood and can even manifest itself in the form of sexually deviant behavior.

Another area of interest when it comes to how adversity and resilience contribute to self-esteem includes its impact on health and school engagement. Typically, healthy school engagement and performance is shows to be characteristic of a good self-concept which includes self-esteem and self-efficacy. Individuals with higher self-esteem often find it easier to conform to a syllabus and study effectively when compared to individuals with lower self-esteem scores.

A study conducted in 2014 studied the association of adverse childhood experiences with school success factors (Bethell et al, 2014). The study found that children with two or more adverse childhood experiences were 2.67 times more likely to fail a grade (repeat a year) in school, compared to individuals without any of the experiences. It also found that resilience

mitigated the impact of adverse childhood experiences on grade repetition and school engagement. Among students who had two or more of the adverse experiences, those who had learned and showed aspects of resilience were 1.55 times more likely to be engaged in school and nearly half as likely to have repeated a grade in school, compared to those not exhibiting resilience. This study offers major insight into the potential ability of resilience to help overcome the negative emotions and trauma associated with adverse experiences in childhood. Such studies allow room for future research that may introduce resilience building exercises within schooling frameworks. These could then aid students (especially ones with traumatic childhoods) to better cope with growing and educational struggles. This study offers important information on how resilience building exercises can be implemented in school settings in order to help younger individuals cope with adversity. In this way, similar exercises can be devised for young adults as well and implemented within a social or educational framework.

The association between self-esteem and resilience can be better understood if considerations are made to study how effective coping strategies help keep self-esteem scores up in the face of adversity. A study conducted in Boston College examined the resilience of self-esteem after the loss in the lives of older adults (Collins & Smyer, 2005). The authors of this study investigated the relationship between loss and change in self-esteem during a 3-year period. The study included two waves of data collection; one at the beginning of the study and one after a significant amount of time has passed. The results showed a small but significant decrease in self-esteem between wave I and wave II of the study. The study concluded that small changes in self-esteem is evidence of resilience in older adult's psychological well-being. An explanation of this is that older adults often have appropriate coping strategies in place to safeguard their self-esteem and well-being in the face of adversity. This study suggests that older adults almost always manage to cope with difficulties and trauma and that it is the younger individuals who aren't as developed emotionally. Thus, it can be assumed that the target audience for the study currently being conducted has been selected aptly since it is the young-adults who seem to be affected the most by the lack of psychological resilience and inadequately developed coping strategies.

In order to fully implement a methodology that correlates the two variables with self-esteem, the research perspective must not just rely on findings within the western context, rather, a special emphasis must be placed to observe how the aforementioned variables interact within the Indian context. The experience of childhood abuse and trauma also varies across cultures, as does the coping strategies that help build resilience. It is important to observe how childhood trauma and resilience impacts the self-esteems of individuals from more collectivistic cultures that typically lay emphasis on development as a society rather than individual prowess. A study conducted in Tokyo observed the associations among adverse childhood experiences, aggression, depression and self-esteem in female juvenile offenders in Japan. The study considered a female-only sample, on the premise that female juvenile offenders are more likely to have a history of childhood abuse, emotional disturbances, mental health problems, and serious problems involving substance abuse, compared to their male counterparts (Rodway et al., 2001). 90 female subjects aged between 15 and 18 were recruited to participate in the study. A control group was recruited from a population of first-year female high school students studying liberal arts and commerce. The New Tanaka B Intelligence Scale and WISC-III were used to measure intelligence quotient, Rosenberg's self-esteem scale was used to measure self-esteem, the Buss-Perry Aggression Questionnaire was used to measure aggression and the ACEs Questionnaire was used to measure childhood adverse experiences. The results of the experimental group were compared with the control

group and the odds of an ACEs score greater or equal to 4 in the subject group was found to be 21% as opposed to the 0.7% in the control group. Self-esteem scores were found to be markedly negatively correlated to the other key factors; aggression, ACEs and Depression, indicating an evident basis of self-esteem in childhood. This offers considerable insight into how individual differences exist in the experience of adversity, understanding which is in turn imperative in being able to understand it's influence on self-esteem as well as how subjective resilience dictates self-esteem. From a western standpoint, Japan, just like India, is host to several collectivistic cultures whose core values dictate how an individual's self-esteem and resilience develops and how they perceive adversity. It is to be noted however, that the study was conducted on inmates of a juvenile correctional facility and it doesn't really shed light on the influence of resilience on the sample. This sample is representative of a population of juvenile offenders and thus, cannot be extrapolated to that of college students who have potential to acquire coping strategies and build resilience which may aid in counteracting the effects of childhood adversity. It is thus, unclear as to whether working with institutionalized offenders as a comparison group can be extrapolated on the Indian student population since long-term stay at a correctional facility surely hampers the ability to acquire skills that build resilience.

Several studies have attempted to explore and observe the development and influence of resilience in the Indian context. Studies show that collective adverse experiences, may induce positive effects on a population's resilience. While in India, childhood adversity is not typically a collective experience, it is common and pervasive and there are significant similarities that trend across the population of individuals who have experienced adversity. A qualitative study conducted in 2008 aimed to understand how the experience of the 2004 Asian tsunami influenced individuals in India and its impact on their resilience (Rajkumar et al., 2008). The results indicated that resilience in India was based on prevailing community coping strategies and that an experience of adversity calls to such coping strategies, ultimately building resilience. It mentions that strengthening such prevailing community coping strategies helps individuals maintain and build resilience in the face of adversity.

METHODOLOGY

The aim of this study is to understand the extent to which childhood adversity and resilience influence self-esteem in early adulthood. The study hopes to provide insight into the essential role of childhood experiences in building self-esteem and adaptability later in life. It also hopes to explore the effects of resilience on self-esteem. Resilience appears to be an important variable to consider when studying the influence of childhood experiences on behavior. There is a lack of research in this field that considers studying the trends in resilience alongside. This study attempts to explore the way adverse childhood experiences, resilience and self-esteem interact with each other.

Research Objectives
1. To find out whether childhood adverse experiences are related to self-esteem in early adulthood.
2. To find out whether resilience is related to self-esteem in early adulthood.

Hypotheses
H_{01} - Adverse childhood experiences are not related to self-esteem in early adulthood.
H_{02} - Resilience isnot related to self-esteem in early adulthood.

Research Design

This research adopts a correlational research design in an attempt to empirically observe the relationship between the variables. Using standardized inventories to quantify the aforementioned variables allows an objective analysis of correlations. The primary reasons for opting for a correlational design as opposed to an experimental design are – The aim of the study is to observe the relationship between variables and not to try and establish causality. Secondly – The variables cannot be manipulated since they are measures of psychological constructs that are inherently unique and intrinsic to each participant, thus disallowing the use of independent and dependent variables.

Variables

Variable V_1 – Adverse Childhood Experiences (ACEs)
Variable V_2 – Resilience
Variable V_3 – Self-Esteem Early Adulthood

Operational definitions

Adverse childhood experiences, or ACEs, are stressful or events that include abuse, trauma and neglect. These encompass household dysfunction such as witnessing domestic abuse, drug abuse, violence, emotional neglect, physical neglect, parental separation, incarceration of household members and household mental illnesses.

Self-esteem is an individual's overall subjective evaluation of their own worth and abilities. It encompasses global self-worth by measuring both positive and negative feelings about the self. Along with self-efficacy, it is a part of what consists of self-concept in general.

Resilience is an individual's ability to cope with crisis situations and adversity. It indicates an ability to adapt to a difficult situation and maintain a healthy level of functionality despite stress and adversity. Resilience is a learned quality and consists of an individual's unique coping abilities and experiences.

Sample

The sample will be obtained from amongst students of Christ University, Bannerghatta Campus. Participants will be of ages 18 to 21 years. Attempts will be made to keep the male to female ratio to 1:1. These measures are undertaken in order to keep the sample focused on the research aim. Deviation from these factors would introduce erroneous elements to the study.

Sampling Technique

Participants were chosen using convenience sampling based on the following mentioned criteria due to time and resource constraints. The inclusion criterion is the age since the target population focuses on young adults. The target age range is 18-25 years old. And the exclusion criterion is that participants should not have any pre-diagnosed clinical disorders. Participants with diagnosed clinical and psychological conditions are ineligible to participate for this research due to the potential presence of extraneous influences.

Measures

Adverse Childhood Experiences International Questionnaire (ACE-IQ) (World Health Organization, 2016) is a 13-item binary scale that measures the occurrence of negative childhood experiences. All items were answered by the participants providing a 'yes' or 'no' answer to each item.

Rosenberg's Self-esteem scale (RSES) (Rosenberg, 1965) is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be unidimensional. All items were answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree.

The Resilience Scale (RS) (Wagnild& Young, 1993) is a 25-item scale that measures the capacity to withstand life stressors, and to thrive and make meaning from challenges. It consists of a 17-item "Personal Competence" subscale and an 8-item "Acceptance of Self and Life" subscale. Data was collected by administering the aforementioned questionnaires on students of Christ University.

Procedure
Suitable participants who verbally consented to the study were gathered and seated in a quiet room. The participants were presented with a laptop with a google form containing the research materials. The participants were provided with basic information regarding the study (not disclosing the aim or critical details)The participants were provided with the researcher's contact details. The participants were then required to fill in their personal details on page one of the form. These included age, gender and whether they had been previously diagnosed with any psychological conditions (exclusion criteria).A detailed consent form was presented to the participants in page two of the form, informing them regarding their rights to withdraw from the study, their rights to inquire about the study and other questions that protect their best-interest. They were then informed on what was expected of them for the duration of the data collection process. Once written consent was provided, participants were taken to the third page of the form which contained the Rosenberg's Self-Esteem Scale. Once completed, they proceeded to the next section of the form which contained the Adverse Childhood Experiences Questionnaire. Once completed, they proceeded to the final testing section of the form which contained the Resilience Scale. On completion of this section, participants were provided with a thank you segment, which also debriefed the participants of any deception and provided them with information regarding the intent of the study. This section also informed the participants that they had the right to enquire about the results and relevant contact information was provided to them. Coding and data entry was done using IBM SPSS Statistics version 24.The raw data was then ready to be processed for analysis.

Analysis
Data entry was followed by descriptive and analytic statistics performed using the IBM Statistical Package for the Social Sciences (SPSS) version 24.

Descriptive statistics included sample characteristics including mean, standard deviations, minimum and maximums for all the variables. The variables were then tested for normality using the Shapiro-Wilk test for normality.

Inferential statistical techniques employed included the Spearman's rho Correlation Analysis, followed by simple linear regression analysis to test for prediction.

Ethical Considerations
Each participant included in this study had provided informed consent prior to data collection. Participants were given the option of either disclosing their names or writing their initials only on the form. This allows room to safeguard the participants' anonymity. The participants were informed regarding their right to withdraw from the study at any given

point. The participants' identities were used for the sake of data processing only. No identities were disclosed outside the research process. All other considerations made were in the best interest of scientific research keeping in mind participant welfare and rights.

RESULTS & DISCUSSION

The data was collected from 117 young adult respondents (aged 18-25) for the measures of Self-Esteem (SES), Adverse Childhood Experiences (ACE-IQ) and Resilience (RS). Spearman's Rho Correlation was conducted to test the relationship between these variables. The results indicate that a statistically significant positive moderate correlation exists between resilience and self-esteem. There was no statistically significant correlation between adverse childhood experiences and self-esteem. However, it is important to observe that the directionality of the correlation conforms with the predicted theoretical outcome. Since the relationship between resilience and self-esteem was the only significant one, the Spearman's Rho correlation was followed by simple linear regression analysis to look for predictability. This indicated an approximate 30% prediction between resilience and self-esteem.

Descriptive Analyses

117 participants (M=53, F=64) who were all students of Christ University were considered for this study. The mean age of the participants was approximately = 19 years (M=19.4). Amongst the 117 participants, the minimum score for Self-Esteem according to Rosenberg's Self Esteem Scale was 20 while the maximum was 32. The minimum Adverse Childhood Experiences score was 0 while the maximum was 11 and the minimum Resilience score according to Wagnild & Young's Resilience Scale was 68 while the maximum was 165. The standard deviations for SES and ACE-IQ were SD = 2.64 and SD = 2.27 respectively indicating a low variability within participants. The standard deviation for resilience however, was SD = 20.63. The mean scores for SES, ACE-IQ and RS were M = 26.2, M = 3.6 and M = 124.6 respectively.

Table 1 Descriptive Statistical Measures Including mean, median and SD for Self-Esteem Score, ACE-IQ and Resilience.

	N	Min	Max	M	SD
SES	117	20	32	26.17	2.643
ACE-IQ	117	0	11	3.55	2.265
RS	117	68	165	124.61	20.634

Normality of Data

The scores of Self-Esteem, Adverse Childhood Experiences and Resilience amongst the sample were tested for normality using the Shapiro-Wilk test of normality. The test concluded that Resilience was normally distributed ($p = 0.097$) while Self-Esteem and Adverse Childhood Experiences were not normally distributed ($p = 0.005$ and $p = 0.000$ respectively). This indicated that further inferential statistics to be conducted on the sample were required to be non-parametric in nature due to the absence of normality across variables.

Table 2 Tests of normality including the Kolmogorov-Smirnov and the Shapiro-Wilk statistical tests.

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SES	.119	117	.000	.966	117	.005
RS	.074	117	.170	.981	117	.097
ACE-IQ	.113	117	.001	.944	117	.000

a. Lilliefors Significance Correction

Inferential Analysis
Spearman's Rho Correlation, a non-parametric correlation test, was used to analyze the data to observe whether a significant relationship existed between the three variables – Self-Esteem (SES), Resilience (RS) and Adverse Childhood Experiences (ACE-IQ) respectively.

Table 3 Spearman's rho correlation between Self-Esteem, Resilience and Adverse Childhood Experiences.

			SES	RS	ACE-IQ
Spearman's rho	SES	Correlation Coefficient	-		
	RS	Correlation Coefficient	.553[**]	-	
	ACE-IQ	Correlation Coefficient	-.165	-.136	-

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

There was no significant relationship between Self-Esteem and Adverse Childhood Experiences ($r = -0.165$, $p = 0.075$). There was a moderate positive significant correlation between Self-Esteem and Resilience ($r = 0.553$, $p = 0.01$).

From the above results, it can be inferred that self-esteem and Adverse childhood experiences are not significantly related, thus, the null hypothesis H_{01} is accepted. It is however important to note that the result indicates a negative directionality and a weak correlation. Due to no statistical significance however, the relationship between the two variables remains inconclusive. There are several reasons as to why the influence of chance was found to be higher in the result between these two variables; primarily, it's important to consider that the sample was chosen from college students with a medium-to-high socio-economic status. A study conducted in 2002 found that socioeconomic status has a small but significant relationship with self-esteem. The study observed a positive correlation between socioeconomic status and self-esteem. (Twenge & Campbell, 2002) This, along with the possibility of methodological and sampling errors, offers a possible reasoning as to why the test for correlation between adverse childhood experiences and self-esteem in the context of this sample did not produce statistical significance. Another study observed that adverse childhood experiences and childhood sexual trauma was not a predictor of self-esteem in later life (Brayden et al, 1995). The findings from the study conforms to the relationship observed in the current one.

From Table 3 it can also be inferred that self-esteem and resilience have a statistically significant positive relation, thus, the null hypothesis H_{02} is rejected. Despite the aforementioned parallels drawn between socioeconomic status and self-esteem, the

relationship between self-esteem and resilience established in this study concurs with several other studies. One such study found that resilience was positively associated with psychological well-being and self-concept and negatively associated with PTSD (Bensimon, 2012). Another study found that trait resilience is positively correlated with psychological and social well-being. (Hu et al, 2015).

Following the Spearman's rho correlation, regression analysis was conducted between Resilience and Self-Esteem. Even though the self-esteem scores are not normally distributed, it is important to note that while linear regression is usually conducted using parametric data to find most-likely predictors, it can be conducted on non-parametric data to establish if a predictive relationship exists at all.

Table 4 Single linear regression between resilience and self-esteem: Table of Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	17.450	1.264		13.809	.000	14.947	19.953
RS	.070	.010	.546	6.995	.000	.050	.090
a. Dependent Variable: SES							

Table 5 Single linear regression between resilience and self-esteem: Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.546[a]	.298	.292	2.224	2.125

a. Predictors: (Constant), RS
b. Dependent Variable: SES

A linear regression established that resilience could statistically significantly predict self-esteem in early adulthood, $F(1, 115) = 48.932$, $p < .0005$ and scores of resilience accounted for 29.8% of the explained variability in Self-esteem scores. The regression equation was: Self-Esteem = 17.450 + 0.070 x (Resilience).This statistic indicates that while resilience is not the most likely predictor of self-esteem, it is a predictor nonetheless, with a prediction probability of approximately 30%. It can thus be inferred that a change in resilience will surely bring about a small but significant change in self-esteem. A study conducted in 2006 found significant indirect effects of trait resilience on self-esteem via negative and positive affect on a sample of 240 students with a mean age of 21. The study suggested that resilience influenced positive and negative affect which in turn influenced an individual's self-esteem (Benetti & Kambouropoulos, 2006). Akin to the current study, the study found resilience to be an indirect predictor of self-esteem. This offers a possible confirmation of this phenomenon across samples not considering potential methodological and sampling errors.

SUMMARY AND CONCLUSION
Findings
To summarize, the two null hypotheses of the study were H_{01} – adverse childhood experiences is not related to self-esteem in early adulthood, and H_{02} – resilience is not related to self-esteem in early adulthood. From the results, it can be understood that the null hypothesis H_{01} is accepted due to a lack of statistical significance. The Spearman's rho correlation tests described a weak negative relationship between the two variables but due to error and the potential moderating influences of extraneous variables such as socioeconomic

status, statistical significance could not be obtained. Another important thing to note is that the ACE-IQ questionnaire is a retrospective self-report that focuses on finding the presence of adverse childhood events and not on the extent of their impact, the extremeness of the events or the degree of trauma induced to the participants by the events. This indicates that although participants are able to report whether a said event had occurred to them in the past, they are not able to convey their sentiments or express the emotional impact that followed. A potential future improvement can be mad to yield a better understanding of the interactions between childhood adversity and self-esteem.

Building on the same theory examined in the review of literature, a mixed method approach can be adopted to gain a better understanding of the subjective experiences that follow childhood adversity events and by observing how it influences self-esteem. Hence, from the findings obtained, the null hypothesis H_{02} can be rejected due to the presence of a statistically significant moderate positive correlation between resilience and self-esteem. The findings comply with several other studies conducted using different sample populations. This indicates that resilience and self-esteem positively interact with each other. Next, it was found using simple linear regression analysis that resilience predicts the self-esteem outcome about 30% which is a small but significant predictor of self-esteem. The results indicate that while resilience is able to predict self-esteem, the prediction is possibly indirect and due to the influence of resilience on other affective components that contribute to self-esteem.

Implications

This study opens up room for further research in the context of resilience and offers insight into how childhood adversity influences self-concept in later life. While childhood adversity was found to have no significant statistical correlation with self-esteem, this is not to say that it has no practical correlation, especially since the directionality of the correlation indicated that an increase in childhood adversity could potentially bring about a decrease in self-esteem. A further analysis of the subjective experiences of childhood trauma, factoring in the extent of the traumatic events can lead to a better understanding of how therapeutic interventions can be devised to deal with its effects on well-being. The study also allows a better understanding of how resilience increases subjective mood and affect since studies have found them to be strong predictors of self-esteem (Hu et al, 2015). Using this, resilience building exercises can be developed and integrated into school and home environments to aid in the development of a positive self-concept.

Limitations of the Study

This study does however pose several limitations. As mentioned before, one major hindrance to the study is the ACE-IQ test used to measure childhood adversity. Firstly, the study is a retrospective self-report, the credibility of which, depends entirely upon how much respondents choose to disclose honestly. There is no means available to objectively measure the degree of childhood adversity since most inventories and tests in this regard are retrospective in nature and require participants to construct subjective truths based on the past, which as commonly understood, is subject to the fallacies of memory. Secondly, it is a relatively new test that, despite being heavily utilized and supported by the World Health Organization, has not had its validity and reliability accurately established in most third-world countries. The third limitation is in regards to the sample. The sample was chosen from students of Christ University who mostly belong to the middle-class and therefore have a middle-to-high socioeconomic status which, as earlier discussed, is a predictor of self-esteem. Thus, this sample is not completely representative of the entire young adult population of India and the data obtained from them is subject to the moderating effect of

socioeconomic status as an extraneous variable. The other potential sources of error are that the sample size could have been larger to allow a more accurate statistical representation of the data – as shown during descriptive analysis, the deviations for self-esteem and childhood adversity were found to be quite small, indicating a narrow range of responses which may not encompass the reality of the population. A larger sample size is also preferred for establishing normality and accurately calculating the statistical significance of tests. Potential methodological errors and sampling errors could also have erroneously influenced the study's outcomes.

Recommendations for Future Research
Future studies should attempt to utilize qualitative and mixed method approaches to understanding how childhood adversity and trauma influence individuals. Using such methods allows a deeper understanding of the subjective experiences of adversity and also the degree to which the events have had an impact on the individuals. Scales like ACE-IQ should also be tested for reliability and credibility in order to make their results ecologically valid. Further research should also consider using random sampling techniques to sample from a non-academic population since it reduces the influence of extraneous variables. A PATH analysis can also be conducted to understand how resilience interacts with adversity and self-esteem and to check for moderating effects.

CONCLUSION

Although the study offered insight into the topics of childhood adversity and resilience and how it influences self-perception and self-esteem, the understanding of the relationship between childhood adversity and self-esteem remained inconclusive due to statistical insignificance. It is however an attempt to explore these in the Indian context, something which has not been done extensively. Its finding regarding resilience and self-esteem, that suggests that resilience positively influences self-esteem and is also a weak but significant predictor of self-esteem, leads to a better understanding of how self-esteem is built and maintained in Indian young adults and allows room for further study and application. Further studies should however be conducted to establish consistency in these findings.

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