

The Impact of Trauma on Academic Performance Among College Students

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Inquiry Question: How does trauma impact academic performance among college students?

Introduction

Trauma is an emotional and physical reaction to a distressing or dangerous event. When a person's resources or ability to cope are exhausted, a situation is considered to be “traumatic.” Despite increasing mental health resources becoming widely available, mental health disorders continue to be on the rise. The primary cause of a significant amount of psychopathology, according to many early psychiatrists, was psychological trauma. Freud initially believed that many psychiatric issues were the result of traumas experienced in childhood (Van der Kolk 1943). In this context, *trauma* is defined as Adverse Childhood Experiences (ACE). Adverse childhood experiences are potentially traumatic events that occur before the age of eighteen. A person's health, opportunities, and stability may be negatively impacted by such experiences throughout their lifetime. This may even have an impact on subsequent generations. According to the Centers for Disease Control and Prevention, two out of every three children in the United States experience at least one potentially traumatic event before the age of 18, with roughly a quarter of those children experiencing two or more potentially traumatic events (CDC 2019).

There is a substantial amount of evidence suggesting that childhood trauma is associated with adverse implications. Welsh et al (2017) discovered that early childhood traumas and chronic stress have an impact on how the brain develops. Frequently impeding the development of neural pathways from the limbic system to the prefrontal cortex. As a result, available brain capacity for

executive function, memory, and judgment is strained. The effects of this significant brain modification can be seen in adulthood by Lecy et al (2022), demonstrating that issues for students with ACEs in higher education are indeed increasing and showed results where first generation students who had experienced ACE's performed poorer compared to their continuing education peers. Furthermore, as a result of childhood trauma, students frequently exhibit poor emotional regulation, a lack of understanding of social cues, and a distrust of others. This is solidified by Jung Huh et al (2014) who found a link between childhood emotional abuse, emotional neglect, sexual abuse and general interpersonal distress as well as several specific areas of interpersonal problems in adulthood. Aside from interpersonal distress causing emotional reactions that can influence decision making, the difficulty of forming personal relations and the need to protect oneself from trauma all place extraordinary demands on an individual thus preventing them from performing their best. Trauma evidently impacts adequate brain functioning and forming interpersonal relationships which in return manifests itself in poor academic performance, prompting students to drop out of higher education.

Individuals entering or those who are already in college that have experienced trauma are already academically and socially disadvantaged. Understanding how trauma affects brain development is crucial for evaluating the effects of traumatic experiences. Childhood trauma is especially important because traumatic experiences can have the most profound effects. Van der Kolk (1987) emphasized this in his book by demonstrating that the central nervous system and cognitive functions have not yet fully matured, resulting in a global impairment that can emerge as psychopathological conditions in adulthood. Despite the fact that college students with traumatic histories have been the subject of in-depth research, the majority of the studies have

concentrated on the mental health and other life adaptation outcomes of these students. Paying surprisingly little attention to one crucial step toward becoming an adult that is of enormous public health value: success in higher education.

History of Childhood Maltreatment and College Academic Outcomes: Indirect Effects of Hot Execution Function

Methodology:

Marilyn C. Welsh et al(2017) conducted an experiment using a sample size of 64 undergraduate students (17 males and 47 females) who volunteered to participate deriving from an earlier screening with the study name “Stressful Life Experiences, Cognition, Emotion and Academic Adaptation.” There were 120 participants in the larger screening, 80 of which were invited to continue and take part in the larger study based on their scores in the Childhood Trauma Questionnaire showing moderate to severe ranges of maltreatment in accordance with said questionnaire(CTQ). Of those 80, 16 were unable to be reached/contacted, never showed up to the subsequent study, or declined to continue. The focus of the study was to discern the relationship between traumatic events in a subject’s childhood and the effect it has on their academic performance. Specifically, the intent of the study was to test how Executive Functions(EFs) can show the differences or severity of traumatic events and how they affect academic performance. This was done by a class EF task in which it assessed conflicting monitoring and inhibitory control via a reaction based study/exercise. “Cool” stimuli were represented by colors(red vs blue) and shapes and “hot” stimuli were represented by faces. “Hot” stimuli were broken down into somewhat heated stimuli, which were stimuli with neutral faces of male vs female, while hot had male and female faces displaying emotions of anger or fear. This was a reaction based task in which participants were asked to respond to the Go stimuli as quickly as possible with reasonable accuracy while ensuring that

they withhold their responses to the No-Go stimuli. The responses were made by pressing a button (or not pressing them should it be a No-Go stimuli) and were each presented for 1 second each. “All participants completed the blocks in the following order: Color, Neutral Face, Emotion Face. For each block, there were 15 practice trials and 120 test trials with 66.6% Go trials in the Color block and 75% Go trials in the Neutral Face and Emotion Face blocks.”(Welsh et al, 2017). Go versus No-Go stimuli were counterbalanced across participants, done by having half of the participants in the Color block make a reaction time response to the blue circle while the other half responded to the yellow circle as the Go stimulus. In both the Neutral and Emotion Face blocks, half of the participants responded to the male face and half to the female face, with the constraint that the gender of the Go stimulus be equal across both male and female participants. For the Emotion Face block, half of the Go stimulus faces displayed an angry emotion and half displayed a fearful emotion, making the stimulus even for all blocks.

“The dependent measures were RT to the Go stimuli and accuracy of responding (percentage correct) to both the Go stimuli and the No-Go stimuli in each of the three blocks of trials. Within the Emotion Faces block, RT and accuracy were examined separately for the angry and fear faces”(Welsh et al, 2017).

IGT(Iowa Gambling Task) was a published, standardized, computerized task that simulates a card game to examine risky decision making and learning from feedback, recognized as a Hot EF task. The task presents the participant with 100 trials in which they select a card from one of four decks which can result in a hypothetical monetary gain or loss. Decks A and B yield an initial rapid gain followed by loss across the decks while decks C and D yield slower, less risky gains. The participants start with a hypothetical \$2000 and can finish either above or below this threshold. To further heat the task and give the incentive to finish(and try) in the task, participants were told they would receive a state lottery scratch ticket.

The SACQ(Student Adaptation to College Questionnaire) used in data was found using an administered 15-20 minute questionnaire—one that has been successfully used to identify college students that were at risk of attrition. Norms were based on a sample size of 1300 male and female college students.

To acquire the Grade Point Averages of the participants, they were taken directly from their official academic college transcripts after consent was given. Their transcripts were used to find out the participants' GPA earned in their first semester at the university, their GPA earned during the semester the study took place, and the Cumulative GPA across all semesters.

Results:

Table 1 below shows the means and standard deviations of all variables, showing the relationship between child maltreatment and college outcomes. Based on the results of the study, five potential mediators were found. Mediators being analyses that satisfy the requirements of associations, or showing there is correlation, between both the predictor, being the CTQ, and the outcome variables, being the academic performance of the subject. Those 5 mediators found were GNG Neutral Face RT, GNG Fear Face RT, GNG Anger Face RT, IGT Block 2 Adaptive Reasoning, and IGT Block 3 Adaptive Reasoning. For the potential mediator IGT Block 2 adaptive reasoning, the data showed significant correlation with CTQ Emotional abuse, Emotional Neglect, and CTQ Total Score ($r=-0.28$, $r=-0.26$, $r=-0.28$, respectively.) Additionally, that same block showed significant correlation with cumulative GPA, concurrent GPA, and first semester GPA ($r=0.30$, $r=0.36$, $r=0.27$, respectively.) IGT Block 3 correlated significantly with CTQ Emotional Abuse, cumulative GPA, and first semester GPA ($r=-0.26$, $r=0.29$, $r=0.30$, respectively). The other potential media were identified in the GNG task. "GNG Neutral Face RT correlated with CTQ Emotional Abuse ($r = -0.23$), CTQ Emotional Neglect ($r = -0.23$), and CTQ Total ($r = -0.22$), and GNG Fear RT correlated with CTQ Emotional Abuse ($r = -0.29$)"(Welsh et al, 2017). Additionally, GNG Neutral Face RT had significant correlation with SACQ Academic Adjustment, Personal Emotional Adjustment, Attachment, and Total Score ($r=0.34$; $r=0.35$, $r=0.26$, $r=0.39$), as well as with cumulative, concurrent, and first semester GPA, which are all three GPA measures ($r = 0.32$, $r = 0.29$, and $r = 0.32$ respectively). GNG Fear Face RT correlated significantly with SACQ Personal Emotional Adjustment (r

= 0.25) as well as concurrent GPA ($r = 0.25$). GNG Anger Face RT correlated significantly with CTQ Emotional Abuse ($r = -0.29$), CTQ Total ($r = -0.25$), SACQ Personal Emotional Adjustment ($r = 0.29$), and SACQ Total ($r = 0.26$).

TABLE 1 | Descriptive statistics for variables used in subsequent analyses.

		Min.	Max.	Mean	SD
Demographic Variables	Age	18	34	19.33	2.21
	SES	8	18	14.73	2.25
	WAIS Vocabulary Score	5	16	11.37	2.45
Predictor Variables	CTQ Emotional Abuse	5	22	10.62	4.99
	CTQ Physical Abuse	5	22	7.56	4.16
	CTQ Sexual Abuse	5	25	6.49	3.47
	CTQ Emotional Neglect	5	25	9.79	4.72
	CTQ Physical Neglect	5	20	6.83	2.96
	CTQ Total	25	93	41.29	15.19
Mediating Variables	Neutral Face GNG RT	299.74	618.97	502.82	61.99
	Anger Face GNG RT	285.73	595.31	491.51	57.28
	Fear Face GNG RT	322.67	589.16	471.78	53.45
	Neutral Face GNG Accuracy	0.47	1	0.93	0.08
	Anger Face GNG Accuracy	0.44	1	0.90	0.11
	Fear Face GNG Accuracy	0.64	1	0.89	0.10
	IGT Block 1	-18	16	-2.71	6.05
	IGT Block 2	-10	20	4.29	7.10
	IGT Block 3	-12	20	5.90	7.64
	IGT Block 4	-10	20	6.55	8.41
Outcome Variables	IGT Block 5	-20	20	4.74	9.94
	SACQ Academic	76	192	138.76	28.26
	SACQ Social	53	172	125.41	23.47
	SACQ Personal/Emotion	28	119	77.75	21.19
	SACQ Attachment	50	125	91.9	17.94
	SACQ Total	236	538	402.35	70.01
	First semester GPA	0.00	4.00	2.50	1.06
	Spring 2016 GPA	0.20	4.00	2.81	0.86
	Current Cumulative GPA	0.10	3.98	2.68	0.86

SACQ scales: Academic Adjustment; Social Adjustment; Personal/Emotional Adjustment; Attachment (to college); Total Adjustment. GNG Accuracy scores for the No Go conditions. IGT scores reflect number of adaptive choices – number of maladaptive choices.

Table 2 shows the relevant p-values associated with the questionnaires and the reported forms of experienced traumas.

TABLE 2 | Direct effects of childhood maltreatment measures on college adaptation measures.

	First semester GPA	Spring 2016 GPA	Current Cumulative GPA	SACQ Academic	SACQ Social	SACQ Personal/Emotion	SACQ Attachment	SACQ Total
CTQ Emotional Abuse	-0.15 (0.277)	-0.22 (0.09)	-0.16 (0.24)	-0.04 (0.73)	0.01 (0.94)	-0.18 (0.17)	0.15 (0.25)	-0.05 (0.68)
CTQ Physical Abuse	-0.15 (0.26)	-0.04 (0.75)	-0.08 (0.57)	0.12 (0.37)	0.10 (0.44)	0.08 (0.56)	0.07 (0.61)	0.12 (0.36)
CTQ Sexual Abuse	-0.17 (0.21)	-0.13 (0.32)	-0.18 (0.18)	-0.11 (0.39)	-0.17 (0.19)	-0.04 (0.74)	-0.12 (0.36)	-0.12 (0.35)
CTQ Emotional Neglect	-0.22 (0.09)	-0.16 (0.24)	-0.15 (0.26)	-0.22 (0.08)	-0.29 (0.02)*	-0.26 (0.05)*	-0.09 (0.47)	-0.28 (0.03)*
CTQ Physical Neglect	-0.13 (0.33)	-0.05 (0.7)	-0.09 (0.5)	-0.06 (0.62)	-0.13 (0.33)	-0.12 (0.35)	0.007 (0.96)	-0.09 (0.48)
CTQ Total	-0.23 (0.09)	-0.18 (0.19)	-0.19 (0.17)	-0.09 (0.49)	-0.12 (0.34)	-0.15 (0.24)	0.01 (0.92)	-0.12 (0.36)

*p-values are included parenthetically; statistically significant correlations are denoted with *.*

The Effects of Childhood Trauma on College Completion

Methodology:

Natalie Lecy and Philip Osteen attempted to create a study or experiment in order to determine if trauma was a predictor or factor towards the completion status of college students. To find out if trauma mediates the relationships between race, gender, first-generation status(which are students who are/were attending college as the first member of their descendents), and college graduation, Lecy et al gathered and collected data from multiple time points over the course of fourteen years. She analyzed the collected data in order to draw her own conclusions and find an answer to her question. Using data from the National Longitudinal Study of Adolescent to Adult Health(AAD Health) which had data compiled from more than 90,000 students that completed in-school surveys, a random sample was taken from that and narrowed further to solely include participants that attended four year colleges. That amount that had been selected to then be in-home interviewed for the final wave of data was 5114 consisting of an age range of 24-32. The primary outcome that was being observed was college completion. That was defined as whether the participants had graduated from a 4 year college or not. Those who met the criteria and completed college were marked with a “1” and those who did not marked down the code “0.” Race, gender, and the exact

age of each of the participants were also recorded. Afterwards, the trauma related questions—or ACEs(Adverse Childhood Experiences) were asked. Questions such as “Have you seen a shooting/stabbing of a person?” or “Had a knife/gun pulled on you?” were asked. If participants replied with a response that indicated that they have experienced such ACEs, they were given a score that could change depending on the severity of the experience. Responses were summated to a single number in the event that a participant had experienced multiple traumatic events. Finally, along with the race and gender, participants were asked about whether they were a first-generation or a continuing-generation college student.

Results:

Based on the collected data, the race of the student was not a statistically significant predictor or factor as to whether the participant had graduated from college or not ($b=-.01$, $p=0.824$). Male students however appeared to be less likely to graduate college than females ($b=-0.07$, $p=0.002$). In addition, there was a statistical significance between the first-generation college students in comparison to the continuing-generation counterparts ($b=-0.31$, $p\leq 0.001$). As for the key idea trying to be found out from this collection of data, there is also a statistically significant p-value showing the relationship between experiencing childhood trauma and whether or not the participant had graduated from college or not ($b=-0.29$, $p\leq 0.001$. This scales depending on the number of traumatic events the subject had experienced. Additionally, “there was a statistically significant indirect effect of generational status on college graduation through childhood trauma experiences. Trauma serves as a partial mediator to the relationship between generational status and college completion, indicating that a portion of this relationship is manifested in the first- generation-trauma connection ($b = - 0.02$, $p = 0.001$)”(Lecy et al, 2022).

Table 3 below shows the relationship between the potential predictors being tested and college completion.

Table 3 Model for predicting college completion

	B	SE _B	P-value	95% CI		
				Low	High	OR
Direct effects predictor						
Race	-0.01	0.05	0.824	-0.05	0.04	0.97
Gender*	-0.07	0.02	0.002	-0.12	-0.03	0.74
First-Generation*	-0.31	0.02	<0.001	-0.35	-0.27	0.29
Trauma*	-0.29	0.03	<0.001	-0.34	-0.24	0.55
Indirect effects predictor						
Race*	-0.03	0.01	<0.001	-0.04	-0.01	
Gender*	-0.02	0.01	0.006	-0.03	-0.01	
First-Generation*	-0.02	0.01	0.001	-0.04	-0.01	
Total effects predictor						
Race	-0.03	0.03	0.18	-0.08	0.02	
Gender*	-0.09	0.03	<0.001	-0.14	-0.04	
First-Generation*	-0.33	0.02	<0.001	-0.37	-0.29	

*p < 0.05

Childhood trauma and adult interpersonal relationship problems in patients with depression and anxiety disorders

Methodology:

The question being asked by Hyu Jung Huh et al differs slightly from the questions that have been asked by the prior two sources. The question being explored has to do with how, or if at all, the childhood trauma that adults may have experienced relates to depression and anxiety disorders. To answer the question, Jung huh et al proceeded to conduct this experiment. During a 12 month study period between August 2012 and July 2013, 325 patients who were initially admitted into the Mood and Anxiety Disorders Unit at Seoul St. Mary's Hospital were involved into the study after their consent had been given. The eligibility criteria of the involved participants were that they were within 18 and 65 years of

age, inclusively. Patients with severe or significant personality disorders and/or medical conditions that could interfere with study participation were excluded. So were patients with lifelong mental disorders of varying types. Once the exclusions were made, the participants involved were that number of 325. Similar to the previous two studies, questioning participants of their past potential traumatic experiences is how a lot of data was collected. Just like in Welsh's study that was mentioned earlier, CTQs or questionnaires were administered to the participants. ACEs such as physical and emotional neglect or abuse were questioned. Items were rated between 1(never true)-5(very often true) in which the greater number scales their traumatic experiences with greater severity. Questions were asked in correlation to each type of trauma. "To minimize false identification of trauma, moderate thresholds (>12 for emotional abuse, >9 for physical abuse, >7 for sexual abuse, and >14 and >9 for emotional and physical neglect, respectively) were used to dichotomize all scores (abused vs non-abused or neglected vs non-neglected) for descriptive purposes"(Hyu Jung et al). Additionally, emotional trauma was registered as scores >21 while physical trauma was acknowledged as a score of over >18. These scores were used to split the participants into groups of non-abused vs abused and non-neglected vs neglected. Next, the respondents were asked to indicate to what degree he or she experiences a set of 40 different behaviors or interpersonal problems. If they happen often or done too much, it is all organized on a similar 5 point scale that goes up depending on how often it is found to occur. The choices are "not at all", "a little", "moderately", "quite a lot", "a lot." The scale yields global interpersonal distress and 8 dimensions of interpersonal problems that "constitute a circumplex of personality", those being as follows: domineering/controlling (PA), vindictive/self-centered (BC), cold/distant(DE), socially inhibited (FG), nonassertive (HI), overly accommodating (JK), self-sacrificing (LM), and intrusive/needy (NO). These are to help measure the hostility of the participants and interpersonal rigidity.

Results:

Out of the total of 325 patients, 174(53.5%) of them had depressive disorders. 121 of which were major disorders, 3 with dysthymic disorder, and 50 with unspecified disorders. The remaining 151(46.5%) of

these patients had anxiety disorders. 40 of which were panic disorders, 30 were generalized anxiety disorders, 20 with obsessive compulsive disorder, 18 with posttraumatic stress disorder, 8 with social anxiety disorder, and 35 with anxiety disorder NOS. Patients who had a depressive disorder reported more childhood emotional abuse (with a $p < 0.001$) and childhood emotional neglect (with a $p = 0.048$) than those with anxiety disorders. There were, however, no significant differences in physical neglect (80.6% vs 82.3%, $p = 0.781$) and sexual abuse in childhood (20.6% vs 15.6%, $p = 0.259$) between patients with depressive disorder and those with anxiety disorders. Also, patients with depressive disorder had significantly higher KIIP-SC scores (69.40 ± 24.02) than those with anxiety disorders (60.90 ± 26.79) ($p = 0.003$). The data also presents to us other pieces of significant data such as the KIIP-SC total score, which puts a value on the interpersonal problems (circumplex scales), and implies that a score of that as it pertains to patients with a history of physical abuse in their childhood were more likely to be domineering/controlling ($p = 0.001$) and intrusive/needy ($p = 0.038$) than those who have not had those experiences. In addition to that, those who had experienced sexual abuse in their childhood were more likely to be domineering/controlling ($p < 0.001$), overly-accomodating ($p = 0.031$), self-sacrificing ($p = 0.001$), and intrusive/needy ($p = 0.013$) than those without that ACE. More data in its fullest can be seen in the table below.

Table 4 shows the relationship between different kinds of trauma and the kinds of personality inhibitors or effects they can place on the afflicted or trauma induced individual.

Table 4 Comparison of adult interpersonal problems by groups with co-occurrence or without co-occurrence of childhood emotional and physical trauma (mean \pm standard error adjusted by demographics and psychiatric symptoms)

	Emotional trauma No <i>n</i> = 32	Physical trauma No	Emotional trauma No <i>n</i> = 73	Physical trauma Yes	Emotional trauma Yes <i>n</i> = 50	Physical trauma No	Emotional trauma Yes <i>n</i> = 170	Physical trauma Yes	<i>p</i> value
KIIP-SC	50.38 (4.60)		57.86 (2.76)		72.41 (3.24)		68.85 (1.70)		0.000
Domineering/ controlling (PA)	3.81 (0.68)		4.14 (0.47)		6.10 (0.55)		6.42 (0.286)		0.000
Vindictive/self- centered (BC)	5.24 (0.84)		5.10 (0.57)		7.11 (0.67)		6.51 (0.35)		0.067
Cold/distant (DE)	6.65 (0.89)		6.84 (0.61)		8.95 (0.71)		8.23 (0.37)		0.059
Socially inhibited (FG)	5.46 (0.86)		8.21 (0.58)		10.34 (0.68)		9.21 (0.36)		0.000
Nonassertive (HI)	7.08 (0.80)		8.66 (0.54)		11.33 (0.64)		9.67 (0.36)		0.000
Overly accommodating (JK)	6.27 (0.77)		7.46 (0.52)		9.02 (0.61)		9.25 (0.32)		0.001
Self-sacrificing (LM)	8.88 (0.68)		10.20 (0.46)		11.11 (0.54)		11.04 (0.28)		0.022
Intrusive/needy (NO)	7.00 (0.72)		7.27 (0.49)		8.47 (0.57)		8.51 (0.30)		0.074
Affiliation	4.06 (2.10)		4.35 (1.43)		2.19 (1.68)		4.29 (0.88)		0.725
Dominance	-2.91 (1.74)		-6.84 (1.18)		-7.90 (1.39)		-5.69 (0.73)		0.120
Length	10.35 (1.43)		13.90 (0.97)		14.00 (1.14)		14.07 (0.60)		0.120

Discussions

Welsh et al 2017

The current research demonstrates the idea that having experienced childhood trauma significantly affects academic achievement. For starters, those who experienced childhood trauma have revealed long-lasting changes to their brains, particularly the prefrontal cortex which is responsible for executive function. Growing up with trauma is extremely stressful and turbulent, which reinforces this developmental deficit in a powerful way. Welsh et al (2017) found that IGT Block 2 adaptive responding, a potential mediator, is associated substantially with CTQ Emotional Abuse, Emotional Neglect, and CTQ Total Score ($r = 0.28$, $r = 0.26$, and r

= 0.28, respectively). Evidence from research makes clear that individuals with a history of ACE are more likely to suffer with emotion management, which can easily interrupt executive functioning in real-world circumstances. Furthermore, IGT Block 2 adaptive response was strongly connected with cumulative GPA, concurrent GPA, and first semester GPA ($r = 0.30$, 0.36 , and 0.27 , respectively). As a result of stimulating the testing environment, participants responded to feedback involving profits and losses of fictitious money. Welsh et al heated up the competition even more by giving state lottery scratch tickets to those who finished the job with wins rather than losses overall. This revealed that people with higher CTQ scores (greater reported overall traumatic experiences or specific emotional abuse) were less likely to switch from risky to analytical decisions than people with lower maltreatment levels. The findings show that children who have been exposed to ACE are unable to accurately analyze risks as adults, therefore not completing assignments or studying are not viewed as dangers that may have an influence on their academic success. You cannot anticipate a person with underdeveloped brain functioning to perform well or even to graduate college at a higher rate.

It is vital to mention that a substantial portion of the sample in this research study was female, which is a limitation. As a result, the findings may not apply to a more diverse sample of students who have experienced childhood trauma. To solve this constraint, a broader range of participants should be sought. Furthermore, self-report questionnaires were used in the study, which could result in subjective responses. The degree of bias present cannot be accounted for because emotional abuse is not subject to legal or medical evidence (Welsh et al 2017).

Seeing as trauma disrupts brain development, students are less motivated to complete their academics and maintain their GPA. As a result, individuals drop out of higher education because they believe they are incapable. Lecy et al (2022) study reveals that childhood trauma was a statistically significant predictor of whether they would complete college, particularly among first - generation students. The greater the number of traumatic events, the less likely the participant was to complete college. On average , first - generation college students tend to graduate at rates 14-15% lower than their continuing - education peers (Lecy et al 2022). It's essential to understand that first - generation students who have ACE face substantial obstacles to successfully navigate higher education. For one, their prefrontal cortex which is responsible for executive functions such as carrying out tasks, risk taking and attention are diminished. As a result of this, they acquire a higher probability of not prioritizing their academics or struggling to comprehend concepts. When one does not perform well, the likelihood of them dropping out of higher education is significantly increased. Childhood trauma experiences similarly affect college graduation rates among male students, implying that males' lower likelihood of completing college is explained in part by their stronger relationship to trauma than females. The results suggest that female college students are more likely to express their feelings and seek support compared to male college students.

A consideration of this study was the ability to capture childhood trauma experiences. For one, this study examined the impact of childhood trauma experiences on college graduation rates using data from the National Longitudinal Study of Adolescent to Adult Health. Throughout the course of the study, AAD Health did have a comprehensive set of questions that captured a range of childhood trauma experiences. The questions, however, were neither uniform or based on any

particular measurement methods. When developing interventions to alleviate the detrimental effects of childhood trauma, future research should explore methods for increasing male students' engagement levels (Lecy et al 2022).

Jung Huh et al 2014

Childhood trauma can have profound effects on adult interpersonal relationships. After all, if kids experience potentially incapacitating impacts of childhood trauma, they cannot be expected to function effectively and create healthy relationships. Jung Huh (2014) discovered that out of the total of 325 patients, 174 (53.5%) of them had depressive disorders. Patients who had experienced emotional abuse, neglect, or sexual abuse as children exhibited higher levels of overall interpersonal distress than those who had not (Jung Huh 2014). As a result, it is reasonable to conclude that childhood trauma causes problems with interpersonal relationships in adults. For this reason, students with ACE's pursuing higher education will more likely stay isolated from their peers and lose enthusiasm to complete their studies. Friendships, in general, provide encouragement and motivation; without them, there is more room for poor academic performance and decreased productivity.

Some limitations are needed to be considered in this study. Although being widely used, CTQ and KIIP-SC are self-report measures that may not always yield reliable data. Furthermore, due to the age differences between the childhood trauma and non-trauma groups, memory reports may be biased. Lastly, it is probable that many patients had skewed mental representations of their interpersonal issues and traumatic memory as a result of depressive or anxiety symptoms.

Despite these limitations, this study provides an important effort to illustrate the effects of ACE's on adult relationships.

Conclusion

Adverse Childhood Experiences (ACE) appeared to have negatively influenced academic performance among college students. Students are less motivated to complete their schoolwork because trauma impairs brain development. As a result, ACE's can have an impact on adult interpersonal relationships. This could explain why many individuals who have suffered childhood trauma graduate college at a lower rate due to poor academic performance caused by the aforementioned negative effects. As implied by our research and the information presented by our paper and data, the effects of trauma typically leads to malperformance and a general decline in a university student's ability to succeed in fields of higher education.

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