



Prevalence of Adverse Childhood Experiences (ACEs) among young adults of Kashmir

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ABSTRACT

Objective: Studies on the prevalence of adverse childhood experiences (ACEs) in Kashmir, India, are yet to be conducted. This study aims to estimate the prevalence of ACEs among young adults across all the ten districts of Kashmir Valley.

Methods: A cross-sectional research strategy was used to assess the prevalence of ACEs by employing a multi-stage sampling method. Data were collected from 800 students studying in different colleges and universities in Kashmir with the help of the “Adverse Childhood Experiences” (ACEs) scale.

Results: Findings disclosed that less than a quarter of the respondents reported high exposure to ACEs (15.4 %), more than one-tenth of the participants reported extremely high exposure to ACEs (13.4 %), over a quarter of the sample reported moderate exposure to ACEs (26.3 %), one-third of the youth reported low exposure to ACEs (33.0 %) and over one-tenth of the respondents reported no exposure to ACEs (11.8 %). The prevalence of ACEs was found to be 88.2 % (females: 82.7 % and males: 90.8 %) in Kashmir. The ACEs with the highest level of prevalence were “often or very often sworn at, insulted, or put down” (49.8 %), followed by “often or very often acted in a way that made them afraid that they would be physically hurt” (47.6 %), “often or very often pushed, grabbed, shoved, or slapped” (41.6 %), “often or very often hit so hard that they had marks or were injured” (28.3 %) and “touched or sexually fondled” (25.3 %). Thirteen out of 21 adverse events during childhood were significantly associated with gender.

Conclusion: The findings suggest the need to advocate early targeted interventions, reduce ACEs and their impact, and design efficient measures to improve the health and well-being of young adults in Kashmir.

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1. Introduction

Adverse childhood experiences (ACEs) are stressful and traumatic events that people suffer early in life, usually before they turn 18. They are regarded as public health concerns, affecting the health and well-being of children, not only at the time of their exposure but also in their adult years of life (Felitti et al., 1998; Zahedi et al., 2019; Wiehn et al., 2018). Felitti et al. (1998) describe events such as violence against children, which includes abuse in any form, physical and/or emotional disregard, and abnormal household circumstances (e.g., divorced or separated partners, violent practices against the partner, use of intoxicants in the house, etc.), as majorly responsible for ACEs. According to Corcoran and McNulty (2018), ACEs are defined as “traumatic events (e.g., sexual abuse, physical abuse, emotional abuse) or chronic stressors (e.g., neglect, parental separation) that are uncontrollable to the child.” Exposure to ACEs is rarely found to occur in isolation. So, it is pivotal to understand that children are vulnerable when they experience or are exposed to maltreatment (Finkelhor et al., 2007; Wiehn et al., 2018). Exposure to ACEs is universal and a historical constant that prevails in all societies and cultures at each social level (World Health Organization, 2014). For example, in 2014, an estimated 702,000 children were abused and neglected in the United States of America who were under the age of 18 years (Wildeman et al., 2014).

A number of large-scale studies have been conducted to estimate the prevalence of ACEs in various countries across the globe. ACEs are common in high-income and low to middle-income countries (LMICs). Research reveals that >60 % of American adults (Merrick et al., 2018) and 85 % of Brazilian adolescents (Soares et al., 2016) have been exposed to at least one type of ACEs in their life course. In Eastern Europe, 53 % of adolescents and adults (Bellis, Hughes, et al., 2014), and in the United Kingdom, 47 % of adults have experienced at least one type of ACEs (Bellis, Lowey, et al., 2014). Seventy-six percent of young adults in Vietnam experienced at least one type of ACEs (Tran et al., 2015). In India, no nationwide study on the prevalence of ACEs exists (Fernandes et al., 2021). About 19 % of the world’s children live in India, which constitutes 42 % of the total Indian population, and nearly half of these children are vulnerable and need care and protection (Trivedi et al., 2021). Therefore, more information from a global health perspective is critical concerning the prevalence of ACEs in LMICs because most young people live in these countries (Le et al., 2022).

Research suggests that exposure to a high number of ACEs can reduce about 20 years of life expectancy by increasing the risk of various causes leading to death (Anda et al., 2009; Brown et al., 2009). ACEs are also associated with health hazards like somatic and psychosomatic disorders, cognitive-emotional reactions, or even experiences that cause death and posttraumatic stress symptoms (Douglas & Otten, 2017; Haj-Yahia et al., 2019). A recent study by Baldwin et al. (2021) on population versus individual prediction of poor health from results of adverse childhood screening involving two birth cohorts [British children ($n = 2232$) studied until 18 years from 1964 to 1996 to 2012–2014 and Dunedin children of New Zealand ($n = 1037$) studied until 45 years from 1972 to 1973 to 2017–2019] found that at a population level ACEs as a risk index was associated with harmful outcomes, but did not predict the outcome for the individual. Further research indicates a “dose-response relationship” between ACEs and health outcomes, i.e., greater exposure of a child to ACEs makes them more susceptible towards having problematic health issues in later stages of life (Felitti et al., 1998). Therefore, higher prevalence of ACEs is associated with an increased risk of psychological and behavioural problems, including depression, leading to suicidal ideation and behaviors (Björkenstam et al., 2017; Wiehn et al., 2018), consumption of alcohol (Dube et al., 2006), drug misuse and abuse (Forster et al., 2018) and risky sexual behaviors (Hillis et al., 2001). Hence, childhood trauma serves as a risk factor for mental health. Thus, it is evident from existing literature that ACEs negatively impact individuals’ health and well-being and aid in developing mental disorders and harmful behaviors in their adult years.

The research underscores that low to moderate levels of traumatic exposure may result in better mental health outcomes that aid individuals in perceiving the situation positively and develop effective coping skills, which in turn foster their ability to generate psycho-physiological toughness and cope successfully (Seery et al., 2010). Protective factors are characteristics and events which increase the likelihood of positive outcomes by mitigating the negative repercussions of risk factors such as ACEs and serve as a buffer against the development of various mental disorders like depression, stress, anxiety, and so forth. (Dar, 2021; Fraser et al., 2004). The evidence further indicates that factors including a safe and supportive neighborhood, someone to talk to the victims, supportive parents and peers, and a positive educational environment mitigate the negative and harmful effects of adverse experiences (Dar, 2021; Moore & Ramirez, 2016; Robles et al., 2019; Woods-Jaeger et al., 2018). ACEs present a major public health challenge. Therefore, a shift to focus on prevention and resilience-building is warranted (Hughes et al., 2017).

Kashmir has become a zone of confrontation among various groups of people for territorial control. In the process, innocent children, youth, and older people become victims of multiple challenges and adversities (Dar et al., 2021). Fights between the police and security agencies with different extremist groups cause stress and fear among the Kashmiri people (Dar, Deb, 2021a). There has been a substantial increase in mental disorders among the Kashmiri people, especially the youth, who, in the period of formative years, have been adversely impacted by the conflict, thereby making both their home and social environments traumatic (Dar, Deb, 2020b; Housen et al., 2017). The high stress of parents resulting from volatile and turmoil situations is sometimes responsible for the abuse of children in different forms (Dar, Deb, 2020a, 2020b). Since ACEs are associated with a number of immediate and long-term health hazards, a need was felt to conduct a study along the same line in the Kashmiri context, where no research evidence is available. To the best of our knowledge, no study has been conducted on the prevalence of ACEs among young adults in Kashmir. This study is the first of its kind, which was conducted to estimate the prevalence of ACEs among a sample of 800 college and university students across all the ten districts of Kashmir. The findings of the present study would help in advocating the early targeted intervention to reduce ACEs and their impact and design effective measures/services to improve the health and wellbeing of Kashmiri young adults.

2. Methods

2.1. Research design and sample

The research design followed in the present study was cross-sectional. A sample of 800 college and university students in the age range of 18–25 years participated in this study. The questionnaires of 107 respondents were incomplete and were removed from the analysis due to inadequate information. The data of the remaining 693 respondents were entered into a spreadsheet and the final analysis was carried out with the help of the IBM SPSS 20.0 version. The sample was drawn from the Kashmir Valley by using a multi-stage sampling method between October 2018 and January 2019. The research participants were selected by a two-stage recruitment process.

Stage I: In the first stage of the recruitment process, the researchers prepared a district-wise list of colleges for all ten districts and selected two random colleges from each district. As two districts had only two colleges, the number of colleges per district was decided to be 2. Additionally, research participants were recruited from 3 university campuses based on their voluntary participation.

Stage II: In the second stage of the recruitment process, research participants were recruited from undergraduate and postgraduate courses, irrespective of their academic year in the same institution. During the field visit, available students in the respective institutions were recruited on the basis of their voluntary participation. Consequently, 800 research participants were covered for the present study.

2.2. Procedure

For the collection of data from the respondents, the researcher approached the local educational authority of Kashmir. In the case of colleges, Principals were approached, and for the Universities, Deans and Directors were approached, and permission was taken from them to collect data from the enrolled students. The study's objectives were briefed to the research participants, and each one was given a consent form and requested to sign on the same before the data collection process. Further, they were briefed about their rights as study participants and were ensured the confidentiality of their responses. The data were collected from the research participants following the self-administration method, and all the participants within 20 min completed the questionnaire.

2.3. Measures

2.3.1. Demographic information questionnaire

There are 13 items in the demographic information questionnaire, which include the respondents' gender, monthly income, age, residence, family type, home environment, and parental educational and occupational background. For instance, "What is your age?", "What is your gender?", "Where do you live?", "What is the monthly income of your family?" and so on. The responses were recorded as "18–20 years" or "21–25 years", "male" or "female," "rural area" or "urban area," "less than 20000" or "20000 and above," respectively.

2.3.2. Adverse childhood experiences (ACEs) scale

The adverse childhood experiences (ACEs) scale used in this study was developed by Felitti et al. (1998). The ACEs scale is a measure of 21-item statements with dichotomous response options in the form of Yes or No. The respondent gets a score of '1' if he/she answers "Yes" and a score of '0' if the answer is "No." There are eight subscales of the ACEs scale, namely psychological abuse (items: 1; 2), physical abuse (items: 3; 4), contact sexual abuse (items: 5; 6; 7; 8), household substance abuse (items: 9; 10), violent household treatment of mother (items: 11; 12; 13; 14), violent household treatment of father (items: 15; 16; 17; 18), household mental illness (items: 19; 20) and household criminal behavior (item: 21). It also gives us the total overall ACEs score by adding all the eight subscales. High scores on subscales and total ACEs are indicative of high levels of adverse childhood experiences that an individual has gone through. The Cronbach's alpha coefficient of the ACEs scale in the present study was found to be 0.82.

2.4. Data analysis

The demographic and socio-economic background of the sample was described in terms of "percentage, frequency, range, mean and Standard deviation (SD)." The inferential analysis included the "Chi-Square Test" performed to compare the gender on different types of ACEs and the "Mann-Whitney U Test," computed to compare the gender on different subscales of the ACEs scale, as data were not normally distributed. Significant results were reported with a confidence interval of 0.95 % and higher to interpret the results meaningfully. The IBM SPSS 20.0 statistical package was used for all the data analysis, and the results were presented through tables.

2.5. Ethical issues considered

All the respondents who participated in this study were treated according to the ethical guidelines of "American Psychological Association" and "Indian Council of Medical Research." The ethical approval for conducting the current study was obtained from the concerned authority. Participation in this study was completed voluntarily and confidentiality of the data was ensured to all the

research participants beforehand. As per the convenience of the college and university authorities, the date and time for the collection of data from the enrolled students were decided.

3. Results

3.1. Demographic and background characteristics of the sample

The main objective of the study was to estimate the ACEs among young adult Kashmiri students. A total of 693 students participated in this study. Over half of the sample (67.4 %) was male; more than half of the participants (55.6 %) were aged 21–25 years, and a majority of the respondents came from a nuclear family (58.9 %). An equal number of respondents came from north Kashmir, central Kashmir, and south Kashmir. See Table 1 for further information about the demographics of the sample.

The present study was conducted in Kashmir, where the Non-Muslim population is low (3.18 %) according to the Census of India (2011),³ and the Muslim population is high (96.82 %). Incidentally, the entire sample that was included in this study were Muslims because Non-Muslim students were not present, which may be because of their less percentage and due to the ongoing conflicts in Kashmir as Non-Muslims prefer to send their children outside Kashmir for education and job, because of turmoil.

3.2. Description of ACEs

Table 2 indicates the prevalence of ACEs reported by the young adults of Kashmir. The mean ACEs experienced by the male respondents was found to be higher ($M = 5.28$) when compared with that of females ($M = 3.56$). Furthermore, the prevalence of ACEs was higher in the case of male respondents (90.8 %) as compared to their female counterparts (82.7 %), and the overall prevalence of ACEs was found to be 88.2 %.

3.3. Levels of ACEs

Data pertaining to the levels of ACEs of Kashmiri young adults are provided in Table 3. Over one-tenth of the participants (11.8 %) did not report any ACEs. One-third of the respondents (33.0 %) were exposed to 2–3 ACEs; more than a quarter of the participants (26.3 %) reported 4–6 ACEs; over 15 % of the respondents experienced 7–10 ACEs, and another 13.4 % of the sample reported >10 ACEs while living in Kashmir.

3.4. Prevalence of different types of ACEs among young adults of Kashmir

Data concerning the prevalence of different types of ACEs reported by Kashmiri young adults are listed in Table 4, which vary from 49.8 % to 6.5 % for 21 different adverse experiences during childhood. The highest prevalence was found in the case of being sworn at, insulted, or put down by a parent/adult in the family (49.8 %) with significant gender variations, wherein males reported more exposure (53.3 %) than females (42.5 %); ($\chi^2 = 7.16$; $p < 0.01$). The next highest prevalence was found with respect to acts that resulted in physical hurt (47.6 %) with some gender variation (females; 43.8 % vs. males; 49.5 %), followed by pushing, grabbing, shoving, or slapping (41.6 %; $\chi^2 = 3.84$, $p < 0.05$), females; 36.3 % vs. males; 44.1 %; hitting and causing marks or injuries (28.3 %; $\chi^2 = 20.10$, $p < 0.001$), females; 17.3 % vs. males; 33.6 %; household member having depression or mental illness (28.3 %), females; 26.1 % vs. males; 29.3 %; touching or fondling in a sexual way (25.3 %), females; 23.5 % vs. males; 26.8 %; pushing, grabbing, slapping, or throwing something at father or stepfather (24.1 %; $\chi^2 = 19.76$, $p < 0.001$), females; 13.7 % vs. males; 29.1 %..

For the rest 14 ACEs that varied from 25.0 % to 6.5 %, male participants were exposed to more ACEs than their female counterparts, and in most of the cases, this was significant statistically except for the following: having attempted “oral, anal, or vaginal intercourse” (females; 11.1 % vs. males; 16.1 %); “pushed, grabbed, slapped, or had something thrown at mother or stepmother” (females; 19.5 % vs. males; 26.1 %); mother or stepmother “kicked, bitten, hit with a fist, or hit with something hard” (females; 14.2 % vs. males; 20.1 %); mother or stepmother “threatened with, or hurt by, a knife or gun” (females; 10.2 % vs. males; 13.5 %) and “household member having attempted suicide” (females; 7.1 % vs. males; 9.2 %).

Association of psychological abuse, physical abuse, contact sexual abuse, household substance abuse, household violent treatment of the mother, household violent treatment of the father, household mental illness and household criminal behavior with gender.

Table 5 indicates that gender differences exist with respect to psychological abuse ($U = 46,653$, $p < 0.05$); physical abuse ($U = 43,691.50$, $p < 0.001$); contact sexual abuse ($U = 47,766$, $p < 0.05$); household substance abuse ($U = 44,152$, $p < 0.001$); household violent treatment of mothers ($U = 46,016$, $p < 0.01$); household violent treatment of fathers ($U = 42,880.50$, $p < 0.001$) and household criminal behavior ($U = 46,737.50$, $p < 0.01$), wherein male respondents reported higher exposure to all these types of ACEs as compared to their female counterparts. Moreover, no gender differences were observed in the case of household mental illness.

³ <http://www.censusindia.gov.in/2011-Common/CensusInfo.html>

Table 1
Socio-demographic and background of the sample ($N = 693$).

Variable	<i>n</i> (%)	Variable	<i>n</i> (%)
Gender		Academic performance	
Male	467 (67.4)	Low	221 (31.9)
Female	226 (32.6)	High	472 (68.1)
Age		Fathers education	
18–20	308 (44.4)	Below 10th	284 (41.0)
21–25	385 (55.6)	10th pass	169 (24.4)
Family type		12th pass	92 (13.3)
Joint	285 (41.1)	Graduation & above	148 (21.4)
Nuclear	408 (58.9)	Mothers education	
Monthly income		Below 10th	493 (71.1)
<10,000	254 (36.7)	10th pass	93 (13.4)
10,001 to 20,000	205 (29.6)	12th pass	57 (8.2)
20,001 and above	234 (33.8)	Graduation & above	50 (7.2)
Place of living		Fathers occupation	
Rural	430 (62.0)	Working	548 (79.1)
Urban	263 (38.0)	Unemployed	145 (20.9)
Educational level		Mothers Occupation	
Under graduate	440 (63.5)	Working	68 (9.8)
Post graduate	253 (36.5)	Housewife	625 (90.2)
No. of siblings		Zone of Kashmir	
Only child	43 (6.2)	North	213 (30.7)
1 sibling	151 (21.8)	Central	211 (30.4)
2 or more siblings	499 (72.0)	South	269 (38.8)

Table 2
Description of ACEs ($N = 693$).

Gender	<i>n</i>	Actual score range	Possible score range	Mean ACEs	<i>SD</i>	Prevalence of ACEs (%)
Female	226	0–13	0–21	3.56	3.39	82.7
Male	467	0–13	0–21	5.28	4.06	90.8
Total	693	0–13	0–21	4.72	3.94	88.2

Note: *SD* = Standard deviation.

Table 3
Levels of ACEs among young adults of Kashmir ($N = 693$).

Level	Number of ACEs reported	<i>N</i>	%
No exposure to ACEs	0 experiences	82	11.8
Low exposure to ACEs	1 to 3 experiences	229	33.0
Moderate exposure to ACEs	4 to 6 experiences	182	26.3
High exposure to ACEs	7 to 10 experiences	107	15.4
Extremely high exposure to ACEs	10 or more experiences	93	13.4
Total		693	100

4. Discussion

The present study aimed to estimate the prevalence of ACEs among young adult college and university students in Kashmir, India. This study is the first of its kind as far as Kashmir is concerned, which provides the prevalence of ACEs at the community level based on the adverse experiences of young adults during their childhood in all ten districts of Kashmir. The current study revealed an 88.2 % prevalence rate of ACEs among Kashmiri youth for anyone adverse experience during their childhood, which was reported to be higher in males (90.8 %) than in females (82.7 %). Further, one-third of the youth reported low exposure to ACEs; over a quarter of the respondents were exposed to moderate levels of ACEs; less than a quarter of the respondents were exposed to high levels of ACEs, and more than one-tenth of the sample reported extremely high exposure to ACEs in Kashmir. Furthermore, the average exposure to ACEs reported by young adults was 4.72 adverse events during childhood (female: 3.56 vs. male: 5.28) in the Kashmir context.

The findings revealed that psychological abuse was significantly higher in males than females. The experiences of being sworn, insulted, or put down by a parent and/or adult in the family were significantly higher in the case of males as compared to their female counterparts. In general, in Kashmir, female children are more submissive and obedient. As a result, female children receive better care and protection from their parents. Our findings corroborate previous studies in which males reported greater psychological abuse than females (Almuneef et al., 2017; Dar, Deb, 2021b). Research revealed that 20.9 % of youth reported psychological violence, which is higher in the case of males when compared to females (Deb & Walsh, 2012). Discouragement in any form is a kind of psychological assault or abuse. Therefore, male youths having higher psychological abuse may be due to the culture of Kashmir, in which males are

Table 4
Prevalence of different types of ACEs among young adults of Kashmir (N = 693).

Question	Female (n = 226)		Male (n = 467)		Total (N = 693)		χ^2
	n	%	n	%	N	%	
Psychological abuse							
1. "Often or very often swear at, insult, or put you down?"	96	42.5	249	53.3	345	49.8	7.16**
2. "Often or very often act in a way that made you afraid that you would be physically hurt?"	99	43.8	231	49.5	330	47.6	1.96
Physical abuse							
3. "Often or very often push, grab, shove, or slap you?"	82	36.3	206	44.1	288	41.6	3.84*
4. "Often or very often hit you so hard that you had marks or were injured?"	39	17.3	157	33.6	196	28.3	20.10***
Contact sexual abuse							
5. "Touch or fondle you in a sexual way?"	53	23.5	112	26.8	175	25.3	<1
6. "Have you touch their body in a sexual way?"	17	7.5	83	17.8	100	14.4	12.96***
7. "Attempt oral, anal, or vaginal intercourse with you?"	25	11.1	75	16.1	100	14.4	3.08
8. "Actually have oral, anal, or vaginal intercourse with you?"	06	2.7	39	8.4	45	6.5	8.14**
Household substance abuse							
9. "Live with anyone who was a problem drinker or alcoholic?"	21	9.3	89	19.1	110	15.9	10.88***
10. "Live with anyone who used street drugs?"	10	4.4	81	17.3	91	13.1	22.29***
Household violent treatment of mother							
11. "Sometimes, often, or very often pushed, grabbed, slapped, or had something thrown at her?"	44	19.5	122	26.1	166	24.0	3.70
12. "Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?"	32	14.2	94	20.1	126	18.2	3.65
13. "Ever repeatedly hit over at least a few minutes?"	21	9.3	79	16.9	100	14.4	7.17**
14. "Ever threatened with, or hurt by, a knife or gun?"	23	10.2	63	13.5	86	12.4	1.54
Household violent treatment of father							
15. "Sometimes, often, or very often pushed, grabbed, slapped, or had something thrown at him?"	31	13.7	136	29.1	167	24.1	19.76***
16. "Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?"	26	11.5	114	24.4	140	20.2	15.74***
17. "Ever repeatedly hit over at least a few minutes?"	33	14.6	114	24.4	147	21.2	8.77**
18. "Ever threatened with, or hurt by, a knife or gun?"	33	14.6	99	21.2	132	19.0	4.30*
Household mental illness							
19. "Was a household member depressed or mentally ill?"	59	26.1	137	29.3	196	28.3	<1
20. "Did a household member attempt suicide?"	16	7.1	43	9.2	59	8.5	<1
Household criminal behavior							
21. "Did a household member go to prison?"	39	17.3	134	28.7	173	25.0	10.64**

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

mostly asked to perform well in studies and take on various family responsibilities involving activities outside the home as early as possible. If they fail to do so, they face regular use of abusive words and other non-physical treatments, by which elders can hurt them psychologically.

In the context of the present study, males reported higher physical abuse in comparison to females. The experiences of physical abuse, including being pushed, grabbed, shoved, or slapped and being hit hard, thus causing marks or injuries, were reported more by male participants when compared to female participants. These findings are in concordance with the findings obtained by Dunne et al. (2009), Abbas and Jabeen (2020), and Almuneef et al. (2017), wherein physical abuse was found to be higher in the case of males than in females. A study by Deb and Walsh (2012) in India found that 21.9 % of youth experienced physical violence, which was experienced more by males than females. Another study by Ustuner Top and Cam (2021) reported a significant association between the male gender and higher rates of child maltreatment. Koenen et al. (2010) found that males reported higher scores of being poorly beaten as a child than females by a caregiver/parent and others. In the conservative Kashmir society, males are considered strong, which might expose them to physical forms of punishment. They are often seen in society as not responding to verbal conversations due to their masculine characteristics. Therefore, people feel they need some sort of a physical indicator. The other reason why male children are physically more abused as compared to female children is due to the fact that males are more disobedient, agile, and rebellious when compared to females. It gives the elders/parents authority to beat the child to teach them discipline and good behavior.

The findings revealed that the male participants had high contact sexual abuse compared to their female counterparts. The events reporting higher prevalence in the case of males revealed touching the perpetrator's body in an inappropriate way and having sexual intercourse. The findings of previous research studies support these findings; for example, Abbas and Jabeen (2020) reported higher

Table 5

Mann-Whitney U Test results for psychological abuse, physical abuse, contact sexual abuse, household substance abuse, household violent treatment of mother, household violent treatment of father, household mental illness and household criminal behavior scores according to gender.

Variable	Gender	n	Mean rank	Sum of ranks	U
1. Psychological Abuse	Male	467	360.10	168,167	46653*
	Female	226	319.93	72,304	
2. Physical Abuse	Male	467	366.44	171,128.50	43,691.50***
	Female	226	306.83	69,342.50	
3. Contact Sexual Abuse	Male	467	357.72	167,054	47766*
	Female	226	324.85	73,417	
4. Household Substance Abuse	Male	467	365.46	170,668	44152***
	Female	226	308.86	69,803	
5. Household Violent Treatment of Mother	Male	467	361.46	168,804	46016**
	Female	226	317.11	71,667	
6. Household Violent Treatment of Father	Male	467	368.18	171,939.50	42,880.50***
	Female	226	303.24	68,531.50	
7. Household Mental Illness	Male	467	351.79	164,288	50,532
	Female	226	337.09	76,183	
8. Household Criminal Behavior	Male	467	359.92	168,084.50	46,737.50**
	Female	226	320.29	72,386.50	

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

sexual abuse among male participants (11 %) when compared to their female counterparts (6 %). In their study, [Deb and Walsh \(2012\)](#) found that 18.1 % of youth experienced sexual abuse, which was significantly higher in male respondents than their female counterparts. The lower disclosure rate of sexual abuse in females may be due to the taboo and honor of females in Kashmiri societies, where the expression of such experiences is considered immoral. The study by [Dar, Deb \(2021b\)](#) found that 19.5 % of the respondents experienced sexual abuse. These results could be because of high social contact in males compared to females. For example, males hang out more frequently with peers from an early age, thereby making them vulnerable to contact sexual abuse more than females, who mostly remain in their homes. Moreover, females tend to hush up matters like abuse (especially sexual abuse) that they face within or outside the family because it distorts their image in society, dishonors their reputation, and, in turn, leads to problems in getting married later in life.

A significantly higher proportion of male youths reported higher household substance abuse than female youths. These individuals lived with an alcoholic/problem drinker or someone using drugs. [Felitti et al. \(2019\)](#), in their study on the relationship between childhood abuse and household dysfunction, reported a higher prevalence of substance abuse among family members. Studies also showed that parental alcohol use disorder could have poor health outcomes for the children, which could be because parental drinking can interfere with healthy parenting, affecting child health and wellbeing ([Almuneef et al., 2017](#); [Richter & Richter, 2001](#)). [Keller et al. \(2008\)](#) conducted a similar study wherein directional effects between parental substance abuse and child adjustment problems were observed. The parental substance abuse problems increased marital conflicts, which in turn were associated with children's maladjustment and mental health problems.

The findings further disclosed that male youths reported significantly more household violent treatment of mothers and violent household treatment of fathers than their female counterparts. The significant event in the case of the mother's domestic violence was being repeatedly hit for a few minutes. Moreover, the significant events in the case of household violence of the father were being pushed, grabbed, slapped or throwing something at them, kicked, beaten, hit with a fist or something hard, repeatedly hit for a few minutes, and threatened with or hurt by a knife or gun. Earlier literature reported that males witnessed a significantly higher number of physical fights at home when compared to their female counterparts ([Almuneef et al., 2017](#); [Koenen et al., 2010](#)). The research underscores the high prevalence of household violence, which was remarkably significant to understand from a child development perspective and was associated with poorer outcomes among children ([Felitti et al., 2019](#); [Laurenzi et al., 2020](#)). [Deb and Walsh \(2012\)](#) found that 29.7 % of participants witnessed family violence, which was associated with lower scores of social adjustments. Males experienced higher rates of family violence as compared to females.

Household criminal behavior has been found to be higher among males than in females. Our results are in concordance with the previous research findings, reporting a higher prevalence of household criminal behavior among male respondents compared to their female counterparts ([Almuneef et al., 2017](#); [Dorji et al., 2020](#)). According to a study by [Besemer et al. \(2018\)](#), recent family member imprisonment increased the chances of poor mental health among males compared to females. Since Kashmir is a conflict-torn place where detention and incarceration are primarily associated with the male population, this may be the reason for higher scores in male respondents. Studies that explored fathers' antisocial behavior and child outcomes found that in cases of high levels of father-child contact, effective or high-quality parenting mediates the potentially adverse effect of fathers' antisocial behavior on children's outcomes ([Thornberry et al., 2009](#)).

However, the study did not reveal significant gender differences regarding household mental illness. There is no bond closer than the bond between children and their household members (parents and siblings). This is a tie which is fundamental to the emotional, social, and physical development of children. Children are sensitive receptors of family distress; therefore, the mental illness of household member(s) may make them vulnerable to developing different mental disorders. Moreover, the degree of impact of

household mental illness on children also depends on various family risks, including social disadvantage, poverty, poor housing, domestic violence, marital discord, substance and alcohol use, family dissolution, abuse, and living with a single parent (Johnson et al., 2018; Perales et al., 2017; Rasic et al., 2014). Research indicates an association between household mental illness and low levels of child attainment in areas including communication, social functioning, and academic competencies (Mensah & Kiernan, 2010). Recent research underscores that the risk for household mental illness can be passed down to many generations (Johnston et al., 2013). The non-significant gender difference in household mental illness could be because the study was conducted in a conflict zone wherein both males and females might have equally felt a greater need for an emotionally healthy and sensitive home environment. Overall, research on ACEs in various countries of the globe, for example, the Bhutan (Dorji et al., 2020); the Philippines (Ramiro et al., 2010); the United Kingdom (Bellis et al., 2015); and United States of America (Gilbert et al., 2015; Sonu et al., 2019), underscores that there is a strong link between the number of ACEs and health outcomes in adult life.

5. Limitations

The general findings of the present study may be restricted to some extent because of its limitations. First, the data were collected from the research respondents by using a self-report assessment. Hence, it is difficult to comment on the quality of the data obtained from the respondents, even though they were clearly briefed about the study objectives after taking informed consent to ensure the confidentiality of the obtained data. Second, the participants included only students studying in different colleges and universities of Kashmir, aged 18 to 25 years; therefore, the participants belonging to other age groups and occupations could have affected the results. Third, the findings could have been affected by gender discrepancy as more males participated in the study than females. In many cases, female children are not encouraged to higher studies in Kashmir because of security issues. Fourth, all the participants included in the study belonged to the Muslim religion because participants from other religions were not available. Fifth, the findings may not be generalized to the entire Kashmiri population or other populations and do not include information from the institutionalized populations because the data were collected from students of higher education institutions only. Lastly, methods like case study and interview were not used in the study, which could have provided in-depth information about the study variables.

6. Conclusion

The present study reported the prevalence of ACEs among young adults to be 88.2 %, with a mean of 4.72 events in the context of Kashmir. Males reported a higher prevalence of childhood trauma in comparison to females. Types of abuse, such as psychological, physical, household substance abuse, violent household treatment of mother and father, household criminal behavior, and sexual abuse, were significantly associated with gender, particularly in the case of male participants. The high prevalence of adverse experiences during childhood was associated with insult, or being put down by a parent/adult in the family, followed by being physically hurt; pushed, grabbed, shoved, or slapped; being hit hard that resulted in marks or injuries; a household member having depression or mental illness, and being touched or fondled in a sexual way.

It is observed that ACEs have long-term adverse effects on personality, mental health, and other emotional factors. One of the strong reasons for ACEs could be a lack of effective parenting and a hostile environment around the child. In this context, Khan and Majumdar (2017) stated that exposure to collective forms of violence under the military siege of Kashmir is reported to have strong associations with individuals' emotions and behavior. Therefore, in addition to common experiences of physical abuse that were reported as significant traumatic incidents, participants also had adverse psychological experiences like loss of freedom and limitations on movement. An important finding was the gender differences in the experience of ACEs, which add to a growing body of literature on contexts of conflict situations in many parts of the world.

Early identification and development of adequate and productive strategies to prevent the occurrence of adverse experiences should be the priority, and proper training must be given to the parents, teachers, and caregivers to deal with such issues. In order to prevent ACEs, special awareness programs should be organized by healthcare professionals and NGOs to mitigate the adverse impacts of early childhood traumatic experiences in conflict zones, especially at the community level. Parents, teachers, and other caregivers should be trained to foster resilience and well-being among children, adolescents, and adults affected by intractable conflict and turmoil in Kashmir. Thus, the present study is important because it is the first study of its kind to account for the prevalence of ACEs among young adults in a conflict zone. The findings will be eye-opening for the local policymakers to take need-based measures.

In the reserved Kashmiri society, females often remain inbound to take up the activities inside the home, and males carry out outdoor activities. Due to the turmoil situation, there have been a number of incidents related to the conflict in educational institutions (e.g., schools, colleges, and universities) wherein female students were exposed to stressful events and, in many cases, received injuries in addition to the male students which caused fear in the mind of people. Moreover, the prolonged conflict has created a new system of living with fear for the common man, and this fear is high among girls and women despite their liberal outlook; therefore, parents are compelled to put certain strictures on their daughters. Because of these security reasons, females, in many cases, are not encouraged to higher studies in Kashmir. Furthermore, during data collection, many untoward incidents happened, including firing, search operations, and protests which could have restricted the movement of students' specifically female students. Thus, data were collected from the students who were available in the educational institutions, which could be the reason for less participation of female students. Therefore, the limitations of the study should be taken into consideration, and the findings should not be generalized to the entire Kashmiri population or other populations.

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Data availability

The data that has been used is confidential.

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