Human Nature Journal of Social Sciences
Vol.4, No.2 (June, 2023), Pp.569-580
ISSN(online): 2788-5240, ISSN(print):2788-5232

Human Nature Research Publisher

Original Article **http://hnpublisher.com**

Childhood Traumas: A Significant Cause of Substance Use among Young Adults in Pakistan

Zara Sikandar[1], Rabia Hanif[2], Rayna Sadia[3]

[1]MPhil Scholar, National Institute of Psychology, Quaid-e-Azam University, Islamabad.
[2]Head of the Department, Department of Applied Psychology, Riphah International University, Islamabad.
[3]Assistant Professor, Department of Psychology, Rawalpindi Women University, Rawalpindi.
Correspondence: zara_sikandar@yahoo.com[1]

ABSTRACT

Aim of the Study: Traumatic events in childhood have increased the risk of substance use. There is a dire need to assess this vulnerability among young adults as they are the most vulnerable segment of the population in terms of substance use. Therefore, the current study aims to evaluate the association between childhood trauma and substance use and examine gender differences across them.

Methodology: Young adults (N = 270) from different institutions in Lahore, Islamabad, Rawalpindi, and Peshawar through a purposive and convenient sampling technique were asked to fill out Childhood Trauma Questionnaire-short form (Bernstein et al., 2003) and Tobacco, Alcohol, Prescription medications, and other Substances Questionnaire (McNeelay et al., 2016) to assess the variables of the study

Findings: Results showed that childhood trauma positively predicted substance use and male participants exhibited higher scores on substance use and reported higher physical abuse and neglect as compared to female participants.

Conclusion: The findings of the study could clarify the risk factors of substance use among adults. As the findings indicated, childhood adverse experiences could be a precursor and therefore efforts need to be addressed this aspect. Similarly, findings could help in the development of preventive measures and intervention programs to address substance use among adults who experienced childhood trauma.

Keywords: Childhood Trauma, Substance Use, Young Adults.

Article History

Received:
January 21, 2023

Revised:
June 23, 2023

Accepted:
June 27, 2023

Published:
June 30, 2023

Introduction

Trauma is characterized as facing an accident, encountering assault, or losing a loved one (Cafasso, 2023). It further consists of emotional abuse, physical abuse, sexual abuse, physical neglect, and emotional neglect (Bernstein et al., 2003; World Health Organization [WHO], 2022). Recurring exposure to childhood traumas occurring predominantly within social context (Zhang et al., 2020) significantly affects individuals both physically and mentally.

Traumatic events, experienced by up to 90% of children in their lifespans (Heinzelmann & Gill, 2013), result in negative consequences on their lives (Jirek, 2011) including substance use (Widom et al., 2007). Children who have faced trauma throughout their childhood are more prone to develop mental health issues, which can increase the risk of substance use (Akcan et al., 2021; Brady & Back, 2012). The term substance use is a psychological and physical inability to discontinue consumption of a chemical, medicinal/addictive drug, activity, or substance, even if it has adverse effects on an individual causing psychological as well as physical harm (Felman, 2023). Unarguably, substance use, and its associated repurcussions pose a substantial concern for young adults, affecting society at large (Abdo et al., 2020).

Substance use has spread across the globe, impacting the basic fabric of families and socioeconomic structures of countries (Amaro et al., 2021). Pakistan has an alarming ratio of substance use and one of its main reasons is emotional disturbance caused by any traumatic event (Khalily, 2011). In 2000, the Pakistan Narcotics Control Board reported that over 55.3% of Pakistani males and 48.7% of Pakistani females used medicines without a prescription for a long time. Over 72 percent of drug users are under the age of 35, with the biggest proportion falling between the ages of 26 and 30 (United Nations Office on Drug & Crime [UNODC], 2013). These statistics illustrate the drastic increase of substance use in Pakistan. However, to curb the issue it is imperative to understand the underlying risk factors to control it. Childhood maltreatment is considered as a significant risk factor in enhanced substance use. There is no official data on various forms of childhood traumas in Pakistan. However, according to an unofficial report, 15-25% of children in Pakistan are sexually abused (The Commercial Sexual Exploitation of Children in South Asia, 2014). Reports of childhood maltreatment from various cities of Pakistan further elaborates the gravity of the situation. In Karachi, 88.7% of school children reported physical abuse and 17% of 300 school children in Rawalpindi/Islamabad were sexually abused (1 in 5 boys and 1 in 7 girls) (Mehnaz, 2018). In all the reported cases, 72% of abused victims were under the age of 13 and in 80% of cases, the abuser is a close friend (Butler, 1998).

Childhood adverse experiences attributed to externalizing behavior issues, like substance use and dependence (Strathearn et al., 2020) alter brain functions, suppress immune system and affect individuals physically as well as psychologically (Hornor, 2015). Post trauma, endorphins level increased in brain helping in numbing the feelings, emotions, and physical pain (Sherin & Nemeroff, 2011). Literature (Al'Absi et al., 2021; Bourne et al., 2021; Müller, 2020; Volpicelli et al., 1999) indicates that to deal with emotional distress, individuals intake narcotics or consume alcohol to increase endorphin activity. However, after the event, endorphins withdrawal produces emotional distress and may contribute to Post-Traumatic Stress Disorder (PTSD) which eventually elevates individuals' vulnerability to substance use (Sinha, 2008). Considerably, traumas immensely impact one's life, some are unable to recuperate after facing it, while those who have better coping skills recuperate after short-term exposure to symptoms of shock and distress. Self-medication theory (Khantzian, 1997) further illustrate that people use substances like alcohol and narcotics, as well as the consequences of other addictive behaviors like eating or gambling, to alleviate distress or change an unpleasant emotional state (Cavaiola, 2009) rather than just to seek pleasure (Hartney, 2021). This indicates that victims of childhood abuse believe that their experiences make them different from children of their age, leading them to retreat from more healthy social circles and gravitate toward fringe groups where substance use is more acceptable (Widom et al., 2007).

Both men and women experience childhood trauma differently (Fayaz, 2019). Literature illustrates that male victims with childhood maltreatment profiles experienced higher rate of physical abuse (Leban & Gibson, 2020), emotional abuse (Davis et al., 2018; Meng & D'Arcy, 2016), and emotional neglect (Ashraf et al., 2019) as compared to females. Additionally, in an adult community sample, childhood trauma was observed higher among men (40%) than women (30%). Results further indicated that adults were 5% sexually abused, 12% emotionally abused, and 5% were emotionally neglected in their childhood (Scher et al., 2004). Similarly, a longitudinal cohort study (Rogers et al., 2021) indicated influence of childhood trauma on substance use with gender as a significant factor for all substances,

showing a notable increase among men as compared to women. Moreover, men exhibit a higher tendency towards substance use (Christiansen, 2017; Sunderland et al., 2016). These findings emphasize the significance of gender in the context of childhood trauma and substance use.

We live in a world where human beings, in many low- and middle-income countries, cope daily with harsh conditions and fight for survival (Kim et al., 2013). In Pakistan, research has mainly focused on traumas; like violence and abuse (Ali et al., 2011), burned survivors (Ahrari et., al, 2013), cancer survivors (Jadoon et al., 2010; Kausar & Saghir, 2010); flood (Aslam & Kamal, 2015), earthquake (Feder et. Al., 2013), and accidents (Tahir et.al., 2012). However, scarce literature on childhood traumas and their association with substance use has prompted the research questions of present research.

Literature indicates positive association between childhood trauma and substance use (Akcan et al., 2021; He et al., 2022). Ghazal (2019) highlighted that a high percentage of abusers began using substances in their adolescent years who were mostly skilled, had a secondary education, and Heroin was the most often used drug (48%) followed by cannabis (28%) among them. These results also revealed that the most common reasons for substance use were family conflicts, peer pressure, and comorbid depression was recorded in 46% of the participants. In addition to this, 7.6 million people are substance users in Pakistan, in which males are contributing 78% to it whereas females are contributing 22% and this ratio is increasing at the rate of 40,000 per year (Asghar, 2018; Khan, 2020). To create successful treatments and prevention of drug-related problems, a pragmatic strategy would be needed to analyze the current conditions of the individual substance user and their surrounding socio-economic environment. Addressing the provision of a framework to clinicians and researchers, this study aimed to identify the relationship between childhood traumas and substance use, which is crucial to understand the abrupt spike in substance use in Pakistan.

Keeping in view of the above literature, the current study aims to examine the association between childhood traumas and substance use among young adults and to investigate gender differences across these study variables. To address these objectives, following hypotheses were formulated: (1) Childhood traumas will be positively associated with substance use and (2) male will score higher on substance use and childhood trauma as compared to females.

Research Methodology

Research Design and Sample

Correlational research design was employed to test the hypotheses. Participants were selected through a purposive and convenient sampling technique from different cities in Pakistan, including Rawalpindi, Islamabad, Peshawar, and Lahore. This sample included young adults (N = 270) with age range of 18-35years (M = 22.36, SD = 2.79).

Measures

The Childhood Trauma Questionnaire-Short Form (CTQ-SF): Childhood trauma was assessed by 28 item scale that assessed five types of childhood trauma, including, emotional abuse (item 3, 8, 14, 18, & 25), physical abuse (item 9, 11, 12, 15, & 17), sexual abuse (item 20, 21, 23, 24, & 27), emotional neglect (item *5, *7, *13, *19, & *28), and physical neglect (item 1, *2, 4, 6, & *26) (Bernstein et al., 2003). The questions are answered on a five-point Likert-type scale ranging from 1 = never true to 5 = very often true. The possible score range of the overall scale is 28 – 140 and for subscales is 5 to 25. CTQ-SF has satisfactory test-retest reliability (Spearman ρ = .75) and internal consistency (Cronbach α = .89) (Kim et al., 2013).

The Tobacco, Alcohol, Prescription Medications, and other Substance: Substance use was assessed by TAPS-1 which is a screening tool for substance use applicable to the general population (McNeelay et al., 2016). The TAPS-1 asks about the frequency of use in the past 12 months of tobacco, alcohol, illicit drugs, and non-medical use of prescription medications (sedatives, opioids, and stimulants). Participants

responded on five response options ranging from 'never' to 'daily or almost daily.' This screening tool can be used for young adults (18-30) and adults (30+) both. It is available for self-administration and interviewer-administration to identify substance use, sub-threshold substance use disorder (i.e., at-risk, harmful, or hazardous use), and substance use disorders. The TAPS tool has good sensitivity (>.92) and good specificity (>.80) for identifying substance use (McNeely, et al., 2016). The TAPS Tool provides 7 scores, one for each substance. The scores range from 0 – 4 for alcohol, and 0 – 3 for other substances (cannabis, non-prescription stimulants, heroin, opioid, sedative, and prescription stimulants, with higher scores suggestive of greater severity.

Procedure

Ethical approval was taken from the Review board of Riphah International University. Participants participated with their consent, were briefed about the purpose of the study, and their confidentiality was maintained. Participants were allowed to withdraw anytime and were thanked for their participation.

Results

Both men (*n* = 140, 51.9%) and women (*n* = 130, 48.1%) participated in the study. The majority of them were unmarried, graduated, unemployed, living in nuclear family systems, and belonged to urban areas.

The Cronbach alpha reliability coefficient indicated good internal consistency (ranging from α = .71 to α = .84) (Gravesande et al., 2019) Additionally, skewness and kurtosis fall in the normal region between -2 and +2, considered as acceptable (George & Mallery, 2010). Correlation analysis and *t*-test were computed to test the hypotheses of the study. Results are displayed in Table 3 and 4 respectively.

Table 1: *Dem Characteristics of Young Adults (N = 270)*

	Demographic Variables	***f***	***%***
1	Gender		
	Men	140	51.9
	Women	130	48.1
2	Family System		
	Nuclear	153	56.7
	Joint	117	43.3
3	Marital Status		
	Married	21	7.8
	Unmarried	248	91.9
	Divorced	1	.4
4	Education		
	Matriculation	1	.4
	Intermediate	13	4.8
	Graduate	199	73.7
	Undergraduate	50	18.5
	Post-graduate	7	2.6
5	Employment		
	Employed	49	18.1
	Unemployed	221	81.9
6	Area of Settlement		
	Rural area	69	25.6
	Urban area	201	74.4

Table 2: *Descriptive Statistics & Pearson Correlation between Childhood Trauma & Substance Use among Young Adults (N = 270)*

	Variables	1	2	3	4	5	6	7
1	Emotional abuse	-	-	-	-	-	-	-
2	Physical abuse	.60**	-	-	-	-	-	-
3	Sexual abuse	.51**	.60**	-	-	-	-	-
4	Emotional neglect	.34**	.32**	.39**	-	-	-	-
5	Physical neglect	.44**	.55**	.53**	.65**	-	-	-
6	Childhood trauma	.74**	.78**	.79**	.72**	.81**	-	-
7	Substance use	.12	.28**	.21**	.17**	.26**	.27**	-
	α	.70	.79	.84	.81	.62	.84	.71
	M	10.21	8.41	8.62	12.14	9.27	58.44	.83
	SD	4.59	4.54	4.93	5.51	4.12	16.30	1.16

**$p < .01$.

Table 2 demonstrated that childhood traumas significantly and positively correlated with substance use except for non-significant association of emotional abuse with substance use.

Linear Regression Analysis was carried out to examine variance of each trauma in predicting substance use. Emotional abuse was not included in the analysis due to its non-significant correlation with substance use. Table 3 shows the impact of childhood trauma on substance use among young adults. Traumas significantly predicted substance use. However, physical abuse indicated the highest variance explained (8%) followed by physical neglect (7%), sexual abuse (4%), and emotional neglect (3%) in predicting use of narcotics among young adults. Overall, childhood trauma accounted for 7% variance in this association.

Table 3: *Linear Regression Analysis to Predict Substance Use through Childhood Trauma and its Subscales (Physical Abuse, Sexual Abuse, Emotional Neglect, & Physical Neglect) among Young Adults (N = 270)*

Models	**Predictors**	**Substance Use**					***CI* 95%**	
		β	***B***	***SE***	***R^2***	***F***	***LL***	***UL***
1	Constant		.003	.20				
	Childhood Trauma	.27	.02**	.004	.07	20.41**	.01	.02
2	Constant		.23	.14				
	Physical Abuse	.28	.07**	.02	.08	22.89**	.04	.10
3	Constant		.41**	.14				
	Sexual Abuse	.21	.05**	.01	.04	12.19**	.02	.08
4	Constant		.40*	.17				
	Emotional Neglect	.17	.04**	.01	.03	7.87**	.01	.06
5	Constant		.16	.17				
	Physical Neglect	.26	.07**	.02	.07	18.79**	.04	.11

**$p < .01$.

Table 4 revealed significant gender difference across physical abuse, physical neglect, and substance use indicating that male participants exhibited higher scores on physical abuse, physical neglect, and substance use with small to medium effect size.

Table 4: *t-test Comparison of Childhood Trauma, its Subscales (Emotional Abuse, Physical Abuse, Sexual Abuse, Emotional Neglect, & Physical Neglect), & Substance Use among Young Adults (N* = 270*)*

	Male (*n* = 140)		**Female (*n* = 130)**		$t_{(268)}$	*p*	***CI* 95%**		**Cohen's *d***
Variables	***M***	***SD***	***M***	***SD***			***LL***	***UL***	
Childhood Trauma	50.21	18.86	46.98	17.33	1.46	.15	-1.13	7.57	.18
Emotional Abuse	10.20	4.41	10.22	4.78	.04	.97	-1.12	1.08	.00
Physical Abuse	9.32	4.90	7.43	3.90	3.52	.00	.83	2.95	.43
Sexual Abuse	8.89	5.23	8.33	4.57	.94	.35	-.62	1.74	.11
Emotional Neglect	11.93	5.33	12.38	5.72	.67	.51	-1.77	.88	.08
Physical Neglect	9.86	4.23	8.62	3.92	2.50	.01	.26	2.22	.30
Substance Use	1.17	1.22	.46	.97	5.31	.00	.45	.97	.64

Discussions

This study contributes to the current body of knowledge by not only expanding literature on association between childhood trauma and substance use among young adults, but also highlighting gender differences across various types of traumas and substance use.

Findings indicated a positive association between childhood trauma and substance use among adults indicating that people with higher rate of substance use had adverse childhood experiences (Banducci et al., 2014; Simons et al., 2003). The results corroborate majority of the studies that have shown association between childhood trauma and substance use (Hogarth et al., 2019; Thege et al., 2017). Similarly, the ACE (Adverse Childhood Experiences) study examined the prevalence of ten distinct kinds of traumatic conditions, including family violence, parental divorce, drug or alcohol misuse in the family, loss of a parent, and physical or sexual abuse. The findings reported that likelihood of early substance dependence increased between two and fourfold for each adverse event and individuals with five or more ACEs were seven to ten times more likely to misuse drugs or alcohol than those with none (He et al., 2022). However, findings indicated non-significant association of emotional abuse and substance use (Kevorkian et al., 2015; Mandavia et al., 2016). These non-significant findings could be explained in terms of indigenous culture, childhood punishments (physical) are considered part of training in Pakistan. Children fear and to physical punishments might have affected their understanding of emotional abuse and they might have not processed it as an abuse and hence didn't need to cope with it later in their adult life. Regression analysis further confirmed this notion as physical abuse and physical neglect came as the strongest predictor (7%) of substance abuse.

Group comparisons further indicated higher cases of physical abuse, physical neglect, and substance use among men as compared to women. These findings supported the proposed hypotheses that men will score higher on both childhood traumas (Davis et al., 2018; Leban & Gibson, 2020; Thompson et al., 2004) and substance use (Brady & Randall, 1999; McClellan, 2011, 2017). Substance use already stands as a prominent and pressing social problem. According to World Drug Report of United Nations Office on Drug & Crime (UNODC) of the year 2020, 5.4% of the global population and seven million Pakistanis used substance at least once in their lifetime (Metuge et al., 2022). Men exhibit a higher likelihood than women to use nearly all types of illicit substances (Rehm & Shield, 2019). Men also display higher rates of illicit substance use or dependence as well as alcohol consumption across different age groups. However, women exhibit distinct patterns of substance use, its response, and face unique challenges in substance consumption (National Institute on Drug Abuse, 2022). Women, in general, encounter more obstacles in the context of substance use due to the higher stigma associated with substance use among women (Fonseca et al., 2021) and different gender role expectations (Zolala et al., 2016). Research on

current situation of substance use in Pakistan showed a horrendous rise in men than women, whilst women misusing sedatives and tranquilizers more than men (Malik et al., 2012).

These findings suggested that although gender differences exist in physical form of abuse and neglect. However, non-significant differences exist across sexual abuse, emotional abuse, and emotional neglect. This could be explained that as 90% of women in Pakistan are emotionally abused by men (Tinker, 1998) and despite of the abuse they don't report it. This inadequacy in reporting abuse and tabooed status of abuse might have influenced non-significant differences across sexual abuse. It is unfortunate that opening about an abusive incident is still considered unusual due to its sensitivity in Pakistani society and sufferers avoid reporting it because of its associated consequences and social taboos (Rahim et al., 2021). These findings illustrated need for a comprehensive plan and strategy to deal with the increase in childhood traumas and substance use among young adults in Pakistan.

Conclusion and Implications of the Study

Abuse in childhood can lead to a variety of issues in adulthood, some of which may last throughout their lives. This research focused on childhood trauma, which is a fundamental issue and root cause of substance-using behaviors and established positive association between them. The findings from this study could be helpful in developing addiction prevention and intervention programs specifically designed for adults with adverse childhood experiences. These results suggests that a thorough and indigenously well-articulated framework is needed to understand childhood traumas in Pakistan and its associated impact on adults' behaviours.

Limitations and Recommendations

The study utilized a relatively smaller data set to evaluate the association. For a topic, with much larger impact, future studies should examine this association with much larger sample from across the Pakistan to generalize the findings. Additionally, it was a retrospective study, participants were required to respond based on their memories, this retrieval of information might have affected the response of participants. Future studies could use multi-respondent questionnaires to establish the validity of the responses.

Acknowledgments

None.

Conflict of Interest

Authors declared no conflict of interest.

Funding Source

The authors received no funding to conduct this study.

ORCID iDs

Zara Sikandar [1] https://orcid.org/0009-0002-2217-3562
Rabia Hanif [2] https://orcid.org/0000-0002-9049-6593
Rayna Sadia [3] https://orcid.org/0000-0003-0785-5047

References

Abdo, C. H. N., Miranda, E., Santos, C. S. D., De Bessa Júnior, J., & Bernardo, W. M. (2020). Domestic violence and substance abuse during COVID19: A systematic review. *Indian Journal of Psychiatry*, *62*(Suppl 3), S337-S342.

Ahrari, F., Salehi, S. H., Fatemi, M. J., Soltani, M., Taghavi, S., & Samimi, R. (2013). Severity of symptoms of depression among burned patients one week after injury, using Beck Depression Inventory-II (BDI-II). *Burns*, *39*(2), 285–290. https://doi.org/10.1016/j.burns.2012.07.012

Akcan, G., Öztürk, E., & Erdoğan, B. (2021). The investigation of the mediating role of coping trategies on the relationship between childhood traumas, depression and alcohol use disorder in university students. *Journal of Substance Use & Addiction Treatment*, *123*, Article 108305.

Al'Absi, M., Ginty, A. T., & Lovallo, W. R. (2021). Neurobiological mechanisms of early life adversity, blunted stress reactivity and risk for addiction. *Neuropharmacology*, *188*, Article 108519.

Ali, T. S., Asad, N., Mogren, I., & Krantz, G. (2011). Intimate partner violence in urban Pakistan: Prevalence, frequency, and risk factors. *International Journal of Women's Health*, *3*, 105-115. https://doi.org/10.2147/ijwh.s17016

Amaro, H., Sanchez, M., Bautista, T., & Cox, R. (2021). Social vulnerabilities for substance use: Stressors, socially toxic environments, and discrimination and racism. *Neuropharmacology*, *188*, Article 108518. https://doi.org/10.1016/j.neuropharm.2021.108518

Asghar, S. (2018, February 10). Drug abuse in Pakistan reaches alarming level. *The Nation*. https://www.nation.com.pk/10-Feb-2018/drug-abuse-in-pakistan-reaches-alarming-level

Ashraf, F., Niazi, F., Masood, A., & Malik, S. (2019). Gender comparisons and prevalence of child abuse and post-traumatic stress disorder symptoms in adolescents. *Journal of Pakistan Medical Association*, *69*(3), 320-324.

Aslam, N., & Kamal, A. (2015). Coping strategies as a predictors of psychological distress and post traumatic growth among flood affected individuals. *Journal of Alcoholism and Drug Dependence*, *3*, Article 181. https://doi.org/10.4172/2329-6488.1000181

Banducci, A. N., Hoffman, E. M., Lejuez, C. W., & Koenen, K. C. (2014). The impact of childhood abuse on inpatient substance users: Specific links with risky sex, aggression, and emotion dysregulation. *Child Abuse & Neglect, 38*(5), 928–938.

Bernstein, D. I., Stein, J. A., Newcomb, M. E., Walker, E. D., Pogge, D. L., Ahluvalia, T., Stokes, J. B., Handelsman, L., Medrano, M. A., Desmond, D. P., & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect*, *27*(2), 169–190. https://doi.org/10.1016/s0145-2134(02)00541-0

Bourne, P. A., Foster, C., Campbell, C., Fallah, J., McLean, C., Williamson, B., Walker, S., Bennett, J., Allen, D., & White, M. (2021). Impact of alcohol consumption on the psychological well-being of Jamaicans during the coronavirus disease-19 (COVID-19) pandemic. *International Journal of Collaborative Research on Internal Medicine & Public Health*, *13*(9), 32-42.

Brady, K. T., & Back, S. E. (2012). Childhood trauma, posttraumatic stress disorder, and alcohol dependence. *Alcohol Research: Current Reviews*, *34*(4), 408-413. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860395/

Brady, K. T., & Randall, C. L. (1999). Gender differences in substance use disorders. *Psychiatric Clinics of North America*, *22*(2), 241-252. https://doi.org/10.1016/s0193-953x(05)70074-5

Butler, I. (1998). Sold for Sex. *Probation Journal*, *45*(2), 108–109. https://doi.org/10.1177/026455059804500217

Cafasso, J. (2023, April 4). Traumatic Events. *Healthline*. https://www.healthline.com/health/traumatic-events

Cavaiola, A. (2009). Psychological models of addiction. In G. L. Fisher, & N. A. Roget, *Encyclopedia of Substance Abuse Prevention, Treatment, & Recovery* (pp. 720-723). Thousand Oaks CA: SAGE.

Christiansen, D. M. (2017). Sex and gender differences in trauma victims presenting for treatment. In M. J. Legato (Eds.), *Principles of gender-specific medicine* (3rd eds, pp. 497–511). Academic Press. https://doi.org/10.1016/b978-0-12-803506-1.00043-7

Davis, K. C., Masters, N. T., Casey, E. A., Kajumulo, K. F., Norris, J., & George, W. H. (2018). How childhood maltreatment profiles of male victims predict adult perpetration and psychosocial functioning. *Journal of Interpersonal Violence*, *33*(6), 915–937. https://doi.org/10.1177/0886260515613345

Fayaz, I. (2019). Child abuse: effects and preventive measures. *International Journal of Indian Psychology*, *7*(2). 871-884. https://doi.org/10.25215/0702.105

Feder, A., Ahmad, S., Lee, E. J., Morgan, J. E., Singh, R., Smith, B. W., Southwick, S. M., & Charney, D. S. (2013). Coping and PTSD symptoms in Pakistani earthquake survivors: Purpose in life, religious coping and social support. J*ournal of Affective Disorders*, *147*(1–3), 156–163. https://doi.org/10.1016/j.jad.2012.10.027

Felman, A. (2023, May 31). What is addiction? *Medical News Today*. https://www.medicalnewstoday.com/articles/323465

Fonseca, F., Robles-Martínez, M., Tirado-Muñoz, J., Mestre-Pintó, J. I., & Coratu, A. (2021). A gender perspective of addictive Disorders. *Current Addiction Reports*, *8*, 89–99. https://doi.org/10.1007/s40429-021-00357-9

George, D., & Mallery, P. (2010). *SPSS for Windows Step by step: A simple guide and reference 18.0 update*.
Prentice Hall Press.

Ghazal P. (2019). Rising trend of substance abuse in Pakistan: A study of sociodemographic profiles of patients admitted to rehabilitation centres. *Public Health*, *167*, 34–37. https://doi.org/10.1016/j.puhe.2018.10.020

Gravesande, J., Richardson, J., Griffith, L., & Scott, F. (2019). Test-retest reliability, internal consistency, construct validity and factor structure of a falls risk perception questionnaire in older adults with type 2 diabetes mellitus: A prospective cohort study. *Archives of Physiotherapy*, *9*, Article 14. https://doi.org/10.1186/s40945-019-0065-4

Hartney, E. (2021, March 29). *Mindfulness therapy as an addiction treatment*. Verywell Mind. https://www.verywellmind.com/what-is-mindfulness-21854

Heinzelmann, M., & Gill, J. (2013). Epigenetic mechanisms shape the biological response to trauma and risk for PTSD: A critical review. *Nursing Research and Practice*, *2013*, Article 417010. https://doi.org/10.1155/2013/417010

He, J., Yan, X., Wang, R., Zhao, J., Li, J., Zhou, C., & Zeng, Y. (2022). Does childhood adversity lead to drug addiction in adulthood? A study of Serial mediators based on resilience and depression. *Frontiers in Psychiatry*, *13*, Article 871459. https://doi.org/10.3389/fpsyt.2022.871459

Hogarth, L., Martin, L., & Seedat, S. (2019). Relationship between childhood abuse and substance misuse problems is mediated by substance use coping motives, in school attending South African

adolescents. *Drug and Alcohol Dependence*, *194*, 69–74. https://doi.org/10.1016/j.drugalcdep.2018.10.009

Hornor, G. (2015). Childhood trauma exposure and toxic stress: What the PNP Needs to Know. *Journal of Pediatric Health Care*, *29*(2), 191-198. https://doi.org/10.1016/j.pedhc.2014.09.006

Jadoon, N., Munir, W., Shahzad, M. A., & Choudhry, Z. S. (2010). Assessment of depression and anxiety in adult cancer outpatients: A cross-sectional study. *BMC Cancer*, *10*, Article 594. https://doi.org/10.1186/1471-2407-10-594

Jirek, S. L. (2011). *Posttraumatic growth in the lives of young adult trauma survivors: Relationships with cumulative adversity, narrative reconstruction, and survivor missions* [Doctoral dissertation, University of Michigan]. University of Michigan Library. https://deepblue.lib.umich.edu/handle/2027.42/86266

Kausar, R., & Saghir, S. (2010). Posttraumatic growth and marital satisfaction after breast cancer: Patient and spouse perspective. *Pakistan Journal of Social and Clinical Psychology*, *8*(1), 3–17. Retrieved from https://psycnet.apa.org/record/2011-27032-001

Kevorkian, S., Bonn-Miller, M. O., Belendiuk, K. A., Carney, D. M., Roberson-Nay, R., & Berenz, E. C. (2015). Associations among trauma, posttraumatic stress disorder, cannabis use, and cannabis use disorder in a nationally representative epidemiologic sample. *Psychology of Addictive Behaviors*, *29*(3), 633–638. https://doi.org/10.1037/adb0000110

Khalily, M. T. (2011). Mental health problems in Pakistani society as a consequence of violence and trauma: A case for better integration of care. *International Journal of Integrated Care*, *11*(4). https://doi.org/10.5334/ijic.662

Khan, A. A. (2020, December 11). PM to tackle alarming drug addiction rates among students. *University World News*. https://www.universityworldnews.com/post.php?story=20201211084822542

Khantzian, E. J. (1997). The Self-Medication hypothesis of substance use disorders: A reconsideration and recent applications. *Harvard Review of Psychiatry*, *4*(5), 231–244. https://doi.org/10.3109/10673229709030550

Kim, D., Bae, H., Han, C., Oh, H. Y., & MacDonald, K. (2013). Psychometric properties of the Childhood Trauma Questionnaire-Short Form (CTQ-SF) in Korean patients with schizophrenia. *Schizophrenia Research*, *144*(1-3), 93-98. https://doi.org/10.1016/j.schres.2012.12.020

Leban, L., & Gibson, C. L. (2020). The role of gender in the relationship between adverse childhood experiences and delinquency and substance use in adolescence. *Journal of Criminal Justice*, *66*, Article 101637. https://doi.org/10.1016/j.jcrimjus.2019.101637

Malik, A., Nawaz, S., Tahir, A. A., Ahmed, S., Ashraf, S., Hanif, N., Aslam, J., Jamshed, I., Yawar, A., & Malik, M. R. (2012). Knowledge and awareness of harmful effect of substance abuse among users and non-users: a cross-sectional study from Bari Imam. *The Journal of the Pakistan Medical Association*, *62*(4), 412–415. https://pubmed.ncbi.nlm.nih.gov/22755297

Mandavia, A., Robinson, G., Bradley, B., Ressler, K. J., & Powers, A. (2016). Exposure to childhood abuse and later substance use: Indirect effects of emotion dysregulation and exposure to trauma. *Journal of Traumatic Stress*, *29*(5), 422–429. https://doi.org/10.1002/jts.22131

McClellan, M. L. (2011). Historical perspectives on alcoholism treatment for women in the United States, 1870–1990. *Alcoholism Treatment Quarterly*, *29*(4), 332-356. https://doi.org/10.1080/07347324.2011.608597

McClellan, M. L. (2017). *Lady Lushes: Gender, Alcoholism, and Medicine in Modern America*. New York: Rutgers University Press. https://doi.org/10.2307/j.ctt1pwtdn0

McNeely, J., Wu, L., Subramaniam, G., Sharma, G., Cathers, L., Svikis, D. S., Sleiter, L., Russel, L., Nordeck, C. D., Sharma, A., O'Grady, K. E., Bouk, L. B., Cushing, C., King, J., Wahle, A., & Schwartz, R. P. (2016). Performance of the Tobacco, Alcohol, Prescription Medication, and Other Substance Use (TAPS) Tool for Substance use screening in primary care patients. *Annals of Internal Medicine*, *165*(10), 690-699. https://doi.org/10.7326/M16-0317

Mehnaz, A. (2018). Child abuse in Pakistan-Current perspective. *National Journal of Health Sciences, 3*(4), 114–117. https://doi.org/10.21089/njhs.34.0114

Meng, X., & D'Arcy, C. (2016). Gender moderates the relationship between childhood abuse and internalizing and substance use disorders later in life: a cross-sectional analysis. *BMC Psychiatry*, *16*(1), 401. https://doi.org/10.1186/s12888-016-1071-7

Metuge, C. E., Dzudie, A., Ebasone, P. V., Assob, J. C. N., Ngowe, M. N., Njang, E., & Eyoum, S. M. C. (2022). Prevalence and factors associated with substance use among students in tertiary institutions in Buea, Cameroon. *The Pan African Medical Journal*, *41*, Article 102. https://doi.org/10.11604/pamj.2022.41.103.29272

Müller, C. P. (2020). Drug instrumentalization. *Behavioural Brain Research*, *390*, Article 112672. https://doi.org/10.1016/j.bbr.2020.112672

National Institute on Drug Abuse. (2022, May 4). *Sex and Gender Differences in Substance Use*. NIDA. https://nida.nih.gov/publications/research-reports/substance-use-in-women/sex-gender-differences-in-substance-use

Rahim, S., Bourgaize, C., Khan, M. I., Matthew, L., & Barron, I. (2021). Child sexual abuse in Pakistan schools: A non-systematic narrative literature review. *Journal of Child Sexual Abuse*, *30*(5), 546–562. https://doi.org/10.1080/10538712.2021.1901168

Rehm, J., & Shield, K. D. (2019). Global burden of disease and the impact of mental and addictive disorders. *Current Psychiatry Reports*, *21*, 10. https://doi.org/10.1007/s11920-019-0997-0

Rogers, C. J., Forster, M., Grigsby, T. J., Albers, L., Morales, C., & Unger, J. B. (2021). The impact of childhood trauma on substance use trajectories from adolescence to adulthood: Findings from a longitudinal Hispanic cohort study. *Child Abuse & Neglect*, *120*, Article 105200. https://doi.org/10.1016/j.chiabu.2021.105200

Scher, C. D., Forde, D. R., McQuaid, J. R., & Stein, M. B. (2004). Prevalence and demographic correlates of childhood maltreatment in an adult community sample. *Child Abuse & Neglect*, *28*(2), 167–180. https://doi.org/10.1016/j.chiabu.2003.09.012

Sherin, J. E., & Nemeroff, C. B. (2011). Post-traumatic stress disorder: The neurobiological impact of psychological trauma. *Dialogues in Clinical Neuroscience*, *13*(3), 263-278. https://doi.org/10.31887/DCNS.2011.13.2/jsherin

Simons, L., DuCette, J., Kirby, K. C., Stahler, G. J., & Shipley, T. E. (2003). Childhood trauma, avoidance coping, and alcohol and other drug use among women in residential and outpatient treatment programs. *Alcoholism Treatment Quarterly*, *21*(4), 37–54. https://doi.org/10.1300/j020v21n04_04

Sinha, R. (2008). Chronic stress, drug use, and vulnerability to addiction. *Annals of the New York Academy of Sciences*, *1141*(1), 105-130. https://doi.org/10.1196/annals.1441.030

Strathearn, L., Giannotti, M., Mills, R., Kisely, S., Najman, J. M., & Abajobir, A. A. (2020). Long-term cognitive, psychological, and health outcomes associated with child abuse and neglect. *Pediatrics*, *146*(4), Article e20200438. https://doi.org/10.1542/peds.2020-0438

Sunderland, M., Carragher, N., Chapman, C., Mills, K. L., Teesson, M., Lockwood, E., Forbes, D., & Slade, T. (2016). The shared and specific relationships between exposure to potentially traumatic events and transdiagnostic dimensions of psychopathology. *Journal of Anxiety Disorders, 38*, 102–109. https://doi.org/10.1016/j.janxdis.2016.02.001

Tahir, N., Naseer, R., Khan, S. M., Macassa, G., Hashmi, W., & Durrani, M. (2012). Road traffic crashes managed by Rescue 1122 in Lahore, Pakistan. *International Journal of Injury Control and Safety Promotion, 19*(4), 347–350. https://doi.org/10.1080/17457300.2011.628755

The commercial sexual exploitation of children in South Asia: Developments, progress, challenges and recommended strategies for civil society. (2014). *End Child Prostitution in Asian Tourism. https://cdn.icmec.org/wp-content/uploads/2020/07/Regional-CSEC-Overview_South-Asia-ECPAT-2014.pdf*

Thege, B. K., Horwood, L., Slater, L., Tan, M., Hodgins, D. C., & Wild, T. C. (2017). Relationship between interpersonal trauma exposure and addictive behaviors: A systematic review. *BMC Psychiatry, 17*(1), 164. https://doi.org/10.1186/s12888-017-1323-1

Thompson, M. P., Kingree, J. B., & Desai, S. (2004). Gender differences in long-term health consequences of physical abuse of children: Data from a nationally representative survey. *American Journal of Public Health*, *94*(4), 599-604. https://doi.org/10.2105/ajph.94.4.599

Tinker, A. (1998). *Improving women's health in Pakistan*. Health, Nutrition, and Population Series. https://doi.org/10.1596/0-8213-4227-4

United Nations Office for Drug & Crime. (2013). *Drug Use in Pakistan 2013*. http://www.unodc.org.pk/pakistan

Volpicelli, J., Balaraman, G., Hahn, J., Wallace, H., & Bux, D. (1999). The role of uncontrollable trauma in the development of PTSD and alcohol addiction. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, *23*(4), 256-262. Retrieved from https://pubmed.ncbi.nlm.nih.gov/10890822

Widom, C. S., White, H. R., Czaja, S. J., & Marmorstein, N. R. (2007). Long-Term effects of child abuse and neglect on alcohol use and excessive drinking in middle adulthood. *Journal of Studies on Alcohol and Drugs*, *68*(3), 317-326. https://doi.org/10.15288/jsad.2007.68.317

World Health Organization: WHO. (2022). *Child Maltreatment*. https://www.who.int/news-room/fact-sheets/detail/child-maltreatment

Zhang, S., Lin, X., Liu, J., Pan, Y., Zeng, X., Chen, F., & Wu, J. (2020). Prevalence of childhood trauma measured by the short form of the Childhood Trauma Questionnaire in people with substance use disorder: A meta-analysis. *Psychiatry Research*, *294*, Article 113524. https://doi.org/10.1016/j.psychres.2020.113524

Zolala, F., Mahdavian, M., Haghdoost, A. A., & Karamouzian, M. (2016). Pathways to addiction: A gender-based study on drug use in a triangular clinic and drop-in center, Kerman, Iran. *International Journal of High Risk Behaviors and Addiction, 5*(2), Article e22320. https://doi.org/10.5812/ijhrba.22320

Note: This Research Paper Orally Presented at the 1st International Conference on Contemporary World: Challenges and Transformations (October, 2022) at Rawalpindi Women University, Rawalpindi, Pakistan.