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Childhood Trauma and Self-harm in Adults with Clinical Depression and Non-Clinical Controls

Faiz Younas[1 *], Aleena Rubab[2], Kashaf Noor[3]

Abstract

This paper undertook a comparative investigation of childhood trauma and self-harm in adults with clinical depression and non-clinical controls. It was hypothesized that a) there would be a significant positive relationship between childhood trauma and self-harm across the study sample and that b) there would be significant gender differences in both childhood trauma and self-harm in adults with clinical depression and non-clinical controls. Through a non-probability purposive sampling, 100 adults (with n = 50 each with clinical depression and non-clinical controls) with an age range of 18-65 years were recruited. All participants responded to a Sociodemographic Information Sheet, the Childhood Trauma Questionnaire (Bernstein et al., 1994) and the Inventory of Statements about Self-injury (Klonsky & Glenn, 2008) were used for data collection. Results indicated a significant positive association between childhood trauma and self-harm only in adults with clinical depression while also concluding no significant gender differences across the study variables. Other than chalking out future research directions for academics, these findings are mainly relevant to professionals working in clinical and counselling settings as they provided valuable insights into the indigenous dynamics of childhood trauma and self-harm across adults with clinical depression and non-clinical controls.

Keywords: Childhood Trauma, Comparative Analysis, Major Depression, Non-Clinical Controls, Self Harm

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[1]Lecturer, Institute of Applied Psychology, University of the Punjab, Lahore, Pakistan.
[2]MSc Scholar, Institute of Applied Psychology, University of the Punjab, Lahore, Pakistan.
[3]MS Scholar, Center for Clinical Psychology, University of the Punjab, Lahore, Pakistan.

***Corresponding Author Email:**
faizyounasbutt.appsy@pu.edu.pk

Introduction

Conceptualized as any type of physical, emotional and/or sexual form of neglect, abuse and exploitation that poses an actual or potential threat to a child's development and well-being, childhood trauma (WHO, 2022) is deemed to have negative consequential effects on the mental health of the individuals (Gibb et al., 2003). Studies indicate that experiencing bad experiences in early life like trauma and abuse is linked to a variety of adult psychopathologies (Aafjes-van Doorn et al., 2020). Similarly, childhood trauma (CT) was found to be negatively related to the quality of life as it contributed towards the development of social, physiological, behavioral and cognitive disorders in adult life (Khan et al., 2022).

Moreover, a study disclosed that childhood experiences of neglect and maltreatment serve as the source of self-criticism in adulthood (Bruefach et al., 2021). Also, the findings of Lakhdir et al. (2021) suggested that frequent parent-to-child maltreatment occurring during childhood leads to the development of depressive symptoms later in adolescence.

Though there is not any standard definition of self-harm (SH) but for the current paper, it is defined as intentional self-poisoning or self-injury irrespective of intent (Hawton et al., 2003). It appears to be against the evolutionary understanding of human behavior (Nilsson et al., 2022) while both the clinical and non-clinical samples have exhibited its frequent prevalence (Gillies et al., 2018; Nilsson et al., 2022). More specifically, the concept of SH in adolescents is viewed as a growing global public health issue (Patchin et al., 2022). Irrespective of the fact whether the individuals engaged in SH want to die or not, it is pertinent to understand that they are at significant risk for suicide (Pilkington et al., 2020). This behavior begins during adolescence and is more closely linked to late or complete puberty stages than to chronological puberty (Stänicke, 2022). Statistics indicate that 19% of teenagers under the age of 15 are engaged in some kind of self-harming behavior (Mars et al., 2019). Moreover, studies have also specified that adolescents exhibit an average level of SH ranging from 13-23% to 30-82% in clinical samples (Hooley & Franklin, 2018; Jose & Fu, 2018).

A vast body of research scholarship has signposted that CT and abuse have significant consequential mental health effects, including indulgence in SH (Green & Webster, 2021; Stewart et al., 2020). Similarly, Taillieu et al. (2019) concluded that childhood abuse was the main risk factor for adolescents' self-harming behavior. Likewise, a longitudinal study observed a significant association between childhood abuse and non-suicidal self-harm (Kaplan et al., 2016). Furthermore, a thorough analysis found that CT is a significant risk factor for non-suicidal self-injury (Schmaal & Bendall, 2018). Those who had experienced childhood abuse are likely to develop psychological disorders later in life (Canady, 2018). Similarly, Aqeel et al. (2021) argued that deliberate self-harm was strongly related to suicidal behavior and mental health issues, particularly among depressed adults. Likewise, child abuse emerged as the most common confounding factor along with academic stress and parental conflict in a study investigating depression in children and adolescents (Khan et al., 2021). Moreover, children having parents with non-intact marriages were more vulnerable to sexual abuse while children of non-traditional families were more likely to experience child abuse. Also, another study focused on university students revealed positive association between deliberate SH and stress, anxiety and depression (Shahzad et al., 2021).

Moreover, Edwards (2018) aimed to investigate a connection between depression, anxiety, childhood trauma and the brain response system of the individual and found that exposing children to trauma frequently enabled their bodies to over-transmit stress hormones to facilitate their coping amidst the unconducive events taking place around them. It permits excessive activation of the hypothalamus-pituitary-adrenal (HPA) axis in the brain throughout childhood and later raises the risk of depression and anxiety disorders because of elevated cortisol levels following traumatic experiences (Zhang et al., 2020).

Focusing more on childhood sexual abuse (CSA), Ylmaz Irmak et al. (2016) discovered a connection between CSA and depression in adults. Another study indicated that about 60% of women who survived CSA exhibited signs of chronic and severe depression (James et al., 2016). Similarly, studies have also highlighted the impact of emotional abuse and neglect and associated it with the potential experience of major depressive episodes in adulthood (Khan et al., 2018; Li et al., 2020). Moreover, Ho et al. (2021) examined the specific associations among the various forms of abuse and the prevalence of

disorders in a clinical sample and revealed a connection between emotional abuse and personality disorders and depression. Additionally, a psychiatric outpatient study found that childhood emotional abuse was connected to major depression, posttraumatic stress disorder, and social phobia while physical and sexual abuse was linked with anxiety disorders (Schulz et al., 2017). Keeping in mind the nature of abuse in connection to predicting mental health issues, Prevoo et al. (2016) reported that the emotional form of abuse was more strongly linked with compromised mental health than the sexual or physical aspects of abuse.

Furthermore, research scholarship has also highlighted that CT increases the risk of adolescent suicide impulses, particularly in girls (Tran & Kuhlman, 2020). It is also noteworthy to understand that a history of neglect was found to be linked with an increased risk of non-suicidal SH, whereas a history of physical or sexual abuse was associated with a higher possibility of suicide attempts (Doksat et al., 2017; Holden et al., 2022).

Theoretical Underpinnings

A look at the adverse childhood experiences (ACEs) and their impact on individuals highlights various theoretical models that enabled a better understanding of the phenomena at hand. Learning theories argued that ACEs serve as vulnerability factors with significant psychological effects leading to the development of mental disorders (Mineka & Zinbarg, 2006). These early experiences act as a diathesis that makes some people more vulnerable to stressful situations causing anxiety and depressive disorders. This means that those who experienced trauma are more prone to develop mental health issues as adults.

Similarly, the dual representation model proposed that due to ACEs, children tend to develop two types of memories, one of which can be accessed verbally while the other one is reached via appropriate situational stimuli. This model entails the complexity of trauma processing through reliving the trauma event and emotionally processing it (Brewin et al., 1996).

Moreover, the emotional processing theory is based on engaging in a mental framework in the context of a threat. It included information about the fear-inducing stimulus, the physical and behavioral responses to that stimulus and the meaning one attaches to that particular stimulus (Foa & Kozak, 1986). In the context of CT or experiences of abuse, this framework provides a sufficient explanation for complex post-traumatic stress responses (CPTSR), as the individual tends to develop fear structures for both real and imagined threats.

The Current Study

An overview of the research literature has indicated that even though CT, abuse and SH have been studied in a few studies as well as their relational dynamics with various psychopathologies have also been explored but the comparative studies investigating these variables across the clinical and non-clinical population, and that too in the local, indigenous context has been missing. This is where the significance of the present study comes in as undertaking a comparable sample of clinical (individuals with major depression) and non-clinical populations; it aimed to explore the difference between CT and SH. Therefore, the following objectives were devised to be investigated in the current investigation; a) to investigate the relationship between childhood trauma and self-harm in individuals with clinical depression and non-clinical controls, and b) to study gender differences across the study variables and samples.

Hypotheses

- There would be a significant positive relationship between childhood trauma and self-harm in adults with

clinical depression and non-clinical controls.

- There would be significant differences in childhood trauma and self-harm in adults with clinical depression and non-clinical controls.
- There would be significant gender differences in childhood trauma and self-harm in adults with clinical depression and non-clinical controls.

Method

Research Design and Sample Details

By following a cross-sectional correlational research design, a purposive sample of 100 participants (n = 50 each for adults with clinical depression and non-clinical controls) was recruited. The clinical sample was recruited mainly from the public sector hospitals of Lahore (including Mayo, Services & Ganga Ram) along with a private psychiatric facility (Fountain House). These mental health facilities were included due to our logistical convenience and the relatively facilitative permission process. Due to time constraints and the sample specifications (which include only those participants who were referred by clinicians, with moderate to low levels of depression and consented to participate in the study), the clinical sample was restricted to just 50 participants. The sample of non-clinical controls was also purposively recruited after matching for sociodemographic characteristics from a general non-clinical population. All of the participants were educated (with at least a matriculation degree) and therefore, filled out the questionnaires easily.

Assessment Measures

Sociodemographic Information Sheet

A self-constructed socio-demographic information sheet was developed to gather information from each participant that included their age, sex, marital status, family system, education level, and income of the family.

Childhood Trauma Questionnaire (CTQ)

A 28-item self-report instrument, the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994) offers a reliable and valid screening for histories of abuse and neglect. Adults and adolescents (aged 12 and up) may take the CTQ. The CTQ asks questions about five types of traumas, including emotional, physical, and sexual abuse as well as emotional and physical neglect and is graded on a five-point Likert scale. The emotional abuse subscale assessed the humiliating or demeaning behavior directed towards the participant and how it made them feel. The sexual abuse subscale made inquiries about sexual contact with adults. The physical abuse measured experiences of bodily assaults while the physical neglect talks about the caretaker's failure to meet the basic needs of the participant as a child. And lastly, emotional neglect measured the caregiver's lack of emotional support. While each subscale pertained to five items (a total of 25 items), the remaining 3 items made up the minimization/denial subscale that determined whether the participants were underreporting their CT (Bernstein et al., 1994). The test-retest reliability of its subscales ranges from .79 to .86 while the internal consistency indices range from .66 to .92 (Bernstein et al., 1994).

Inventory of Statements about Self-Injury (ISAS)

A thorough assessment of the purposes of non-suicidal self-injury is provided by the Inventory of Statements about Self-Injury (ISAS; Klonsky & Olino, 2008). The ISAS evaluates several psychological processes like affect regulation, self-punishment, anti-dissociation, anti-suicide, peer bonding, interpersonal influence, and interpersonal boundaries. Three elements (0 = not relevant, 1 = slightly relevant, and 2 = highly relevant) are used to evaluate each function (a total of 39 statements) on the inventory. All

statements start with 'When I self-harm, I am…' followed by 39 statements like 'calming myself down', 'bonding with peers', 'seeking care or help from others' and 'establishing that I am autonomous/independent'. It takes about 8 minutes to complete the survey. Its reliability is .94 (Klonsky & Glenn, 2008).

Ethical Considerations

After the institutional Board of Studies (BOS) approved the research project, we strictly observed the ethical guidelines provided by APA and Helsinki Declaration mandated for research. Permission was taken from the authors of assessment measures used in the present study. The mental health professionals at various psychiatric facilities recommended certain potential participants for the study, who were approached and briefed about the nature of the study while only those individuals were recruited who had moderate to low levels of major depression at the time of data collection, were receiving treatment for at least three months and consented to participate. Additionally, a check-in procedure was also followed after the data collection to ensure their mental well-being.

The non-clinical sample was also purposively recruited from the general population after being matched across sociodemographic characteristics and only those participants were included who gave their formal consent. All the data was collected anonymously and was kept confidential in a password-protected device.

Results

The sociodemographic characteristics showed that most of the participants were young adults (69%), married (55%), belonged to the nuclear family system (58%), earned ≤ 30,000 PKR monthly (75%) and had a master's degree (24%).

Table 1

Inter-correlations for Childhood Trauma and Self-harm on Clinical and Non-Clinical Sample (N = 100)

Clinical Sample (*n* = 50)									
Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	***M***	***SD***
1. CTQ	-	.64**	-.09	.46**	.83**	.74**	.52**	66.30	6.81
2. PA		-	-.74**	.79**	.61**	.35*	.55**	10.96	3.99
3. EN			-	-.87**	-.17	.07	.44**	15.12	4.48
4. EA				-	.41**	.20	.63**	14.04	6.22
5. PN					-	.51**	.38**	10.64	1.86
6. SA						-	.46**	5.72	1.14
7. ISAS							-	10.76	10.79
Non-Clinical Sample (*n* = 50)									
Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	***M***	***SD***
1. CTQ	-	.61*	.19	.40**	.62**	.44**	.06	57.84	5.22
2. PA		-	-.49**	.78**	.16	.63**	.38**	5.84	2.32
3. EN			-	-.74**	.12	-.41**	-.48**	18.04	3.04
4. EA				-	.15	.64**	.42**	7.30	3.81
5. PN					-	.11	-.38	9.56	1.37
6. SA						-	.14	5.06	.31
7. ISAS							-	.72	3.17

Note. CTQ=Childhood Trauma Questionnaire, PA=Physical Neglect, EN=Emotional Neglect, EA=Emotional Abuse, PN=Physical Neglect, SA= Sexual Abuse, ISAS=Inventory of Statements about Self-injury

***p < .01, *p <.05*

Table 1 depicts the inter-correlations between childhood trauma and its subscales along with self-harm across the clinical and non-clinical samples undertaken in the current study. Findings indicated that childhood trauma had a significant positive relationship with self-harm only in the clinical sample. Moreover, physical abuse had a significant positive association with emotional abuse, physical neglect, sexual abuse and self-harm, while a negative relationship with emotional neglect in participants with clinical depression. Similarly, emotional neglect and emotional abuse, both have a positive inter-relationship with self-harm. However, emotional neglect showed a negative association with emotional abuse. Sexual abuse was also found to be positively associated with both self-harm and physical neglect in the clinical sample. In comparison to the sample of non-clinical controls, physical abuse was positively associated with emotional abuse, sexual abuse and self-harm, while emotional neglect had a significant negative relationship with emotional abuse, sexual abuse and self-harm. Moreover, emotional abuse had a positive association with sexual abuse, self-harm and physical abuse.

Table 2

Independent Sample t-test on Childhood Trauma and Self-harm across Clinical and Non-Clinical Samples (N = 100)

Variables	Non-clinical		Clinical				
	M	***SD***	***M***	***SD***	***t(98)***	***p***	***Cohen's d***
CTQ	57.87	5.21	66.30	6.81	-6.98	.002	1.39
PA	5.84	2.32	10.96	3.99	-7.83	.000	1.57
EN	18.04	3.04	15.12	4.47	3.81	.000	.76
EA	7.30	3.79	14.04	6.22	-6.54	.000	1.31
PN	9.56	1.37	10.64	1.86	-3.30	.013	.66
SA	5.06	.31	5.72	1.14	-3.94	.000	.79
ISAS	.72	3.17	10.76	10.79	-6.31	.000	1.26

Note: CTQ=Childhood Trauma Questionnaire, PA= Physical Neglect, EN=Emotional Neglect, EA=Emotional Abuse, PN=Physical Neglect, SA=Sexual Abuse, ISAS=Inventory of Statements about Self-injury

p <.05

Table 2 illustrates significant differences in overall childhood trauma, physical abuse and neglect, emotional neglect and abuse, sexual abuse and self-harm across both clinical and non-clinical samples and especially highlights that participants with clinical depression showed more childhood trauma, physical neglect and abuse, emotional neglect and abuse, sexual abuse and self-harm than non-clinical controls.

Table 3

MANOVA for Childhood Trauma and Self Harm in Clinical and Non-Clinical Samples (N=100)

Sources	SS	MS	*F*	*p*
ISAS				
Groups	2541.81	2541.81	39.96	.000
Gender	41.21	41.13	.65	.42
Sample*groups	56.28	56.28	.89	.34
PA				
Groups	659.71	659.97	62.27	.000
Gender	6.91	6.90	.65	.42
Sample*groups	24.64	24.64	2.33	.13
EN				
Groups	211.63	211.63	14.73	.000
Gender	1.03	1.03	.07	.78
Sample*groups	54.37	54.37	3.78	.055
EA				
Groups	1149.15	1149.15	44.83	.000
Gender	31.95	31.95	1.25	.26
Sample*groups	107.69	107.69	4.20	.04
PN				
Groups	31.50	31.50	13.10	.12
Gender	29.38	29.38	12.21	.001
Sample*groups	1.54	1.54	.64	.42
SA				
Groups	10.99	10.99	15.45	.000
Gender	.19	.19	.26	.60
Sample*groups	.43	.43	.61	.43

Note: df= 1 Groups (clinical and non-clinical), *df=1* gender (men and women). ISAS=Inventory of Statements about Self-injury, PA= Physical Neglect, EN=Emotional Neglect, EA=Emotional Abuse, PN=Physical Neglect, SA=Sexual Abuse

Table 3 represents that groups had a significant main effect on self-harm, but no main effect was found on gender. Moreover, no interactive effect of gender and group was found on self-harm. Similarly, groups had a significant main effect on physical abuse, but no main effect on gender was found. Also, no interactive effect of gender and group was found on physical abuse. Likewise, groups had a significant main effect on emotional neglect, but no main effect was found on gender. However, the interactive effect of gender and groups was found on emotional neglect. Furthermore, both groups and gender had a significant main and interactive effect on emotional abuse. Similarly, groups had a significant main effect on sexual abuse, but no main effect was found on gender. Also, no interactive effect of gender and groups was found on sexual abuse. In contrast to this, while groups did not have any significant main effect on physical neglect but a main effect on gender was found. However, the interactive effect of gender and groups was found on physical neglect. In conclusion, it can be deduced that gender differences were insignificant across clinical and non-clinical samples on childhood trauma and self-harm.

Discussion

While childhood trauma and self-harm have been investigated in various studies across the clinical population, the comparative studies to understand the differential impact and nature of these variables by including a non-clinical population, and that too in our indigenous context is not much common. That's what this study aimed to investigate and while our findings are mostly congruent with the directions pointed out by research literature, few new findings also shed light on the cultural dimensions of the variables under consideration.

Our results showed that childhood trauma was positively correlated with self-harm and that too only with participants with clinical depression. No association was found between the variables across the comparative sample of non-clinical adults. These outcomes are consistent with a substantial and compelling body of previous studies that affirmed the detrimental influence of childhood trauma on the mental health of individuals throughout their life and that made it one of the foremost public health hazards for mental well-being. While Troya et al. (2021) reported that childhood trauma was associated with recurrent self-harming behaviors, another study shared the recurrent evidence that emotional neglect in childhood predicts self-harm (Stagaki et al., 2022). Similarly, Holden et al. (2022) found a strong connection between childhood abuse and self-harm that further lends support to the current findings. Furthermore, Khan et al. (2021) reported that out of 133 participants with depression in adulthood, 21.1% had a history of deliberate self-harm in childhood and 14.3% had attempted suicides. Also, a positive relationship was found between deliberate SH and stress, anxiety and depression in Pakistani university students (Shahzad et al., 2021).

Furthermore, our findings also revealed significant differences in overall childhood trauma and self-harm across both clinical and non-clinical samples while specifically indicating that physical abuse and neglect, emotional neglect and abuse, and sexual abuse and self-harm were more experienced by participants with clinical depression in contrast to non-clinical controls.

These findings are also in congruence with several previous studies including a study by Angelakis et al. (2019) who reported that childhood trauma increased an adult's chances of experiencing significant depression, suicidality, sleep issues, and cognitive issues. Similarly, another research indicated that individuals who experienced childhood trauma had a three to four times higher chance of developing depression and anxiety (Hughes et al., 2017). Furthermore, a study discovered that one of the most important factors in the later development of major depressive disorder is childhood trauma, especially caused by abuse and neglect (Williams et al., 2016). Likewise, Kim (2017) noted that exposure to substantial traumatic stressors throughout childhood such as physical and sexual abuse was linked with an elevated risk for depression. Similarly, another study confirmed that experiencing early trauma and/or abuse increased the risk of developing severe depression at any point in life (Menke, 2019). Likewise, a study in rural Pakistan showed that adverse childhood experiences are a common pathway to adult depression (LeMasters et al., 2021).

Lastly, our results did not find any significant gender differences across childhood trauma, abuse and self-harm across clinical and non-clinical adults. After a thorough investigation of the literature, we came across quite a few studies that generated similar results. A study by Niazi et al. (2019) in Pakistan reported no significant gender differences across the prevalence of child sexual abuse while another research found that childhood trauma was positively related to depressive

symptoms for both genders (Wei et al., 2021). Moreover, Pruessner et al. (2019) displayed that emotional abuse was the strongest predictor of depression in both genders.

Similarly, few studies have also indicated the lack of gender differences in self-harm as well. Wilkinson et al. (2022) confirmed that there were no significant gender differences in non-suicidal self-injury at younger/older ages. Similarly, another study concurred lack of gender differences in depression and self-harm (Bukh et al., 2010). Moreover, another study revealed that both men and women do not differ in the majority of self-harming behaviors, including body regions, recent frequency, intensity, and impulsivity of activities (Beckman et al., 2018).

Limitations and Recommendations

Although it was quite challenging to purposively recruit a clinical sample and then a non-clinical sample matched across sociodemographic characteristics; with more resources and time at disposal, future studies can enhance these findings, especially their generalizability by undertaking an extensive sample, across various psychopathologies and demographics. There is always a risk of participants' bias in self-report measures and even though all participants, especially those with clinical depression were recruited after the referral by their healthcare providers and who explicitly showed interest in participation, there still are chances that they might not have shared their actual responses due to several reasons. Also, the nature of study variables may be baseline triggering for a few participants that might have increased inauthentic responses. These issues can be addressed in future studies by either adopting another form of research approaches like qualitative research involving semi-structured interviews or narrative analysis after building much rapport. Longitudinal and life-history approaches can also be used to investigate the in-depth understanding of the study variables in future studies. Also, by developing and implementing indigenous scales or questionnaires, cultural sensitivities can be catered to in a better way.

Conclusions and Implications

Despite a few shortcomings, this study provides important indigenous evidence in favor of the idea that early trauma may have a detrimental role in the development of adult psychopathologies, especially clinical depression. This also shed light on the relatively understated importance of ACEs that either directly or indirectly exposed individuals to trauma. Other than imparting short-term negative consequences, these experiences have long-term repercussions for the participants who eventually develop psychiatric conditions like depression and SH.

Our findings offer implications primarily for clinical practice as clinical psychologists, counsellors and therapists can engage with present indigenous findings and use them in their practice, especially when dealing with clients with childhood trauma, abuse or clinical depression. These findings may enable them to better diagnose and give prognosis in potential cases. This study may also help in the early and rapid identification of those at risk for both mental health issues and self-harm, especially now that DSM-5-TR (APA, 2022) has categorically asked clinicians to look out for suicidal behavior and non-suicidal self-injury in their clients.

Apart from mental health professionals, present findings can also enable a better understanding to parents to safeguard and protect their children against any negative exposure of trauma, abuse or neglect and practice a better, secure and healthy parenting approach. The non-governmental organizations (NGOs) and non-profit organizations (NPOs) working on the issues of mental health, or child abuse and neglect can also benefit from these findings for future projects and community work.

Contribution of Authors

Faiz Younas: Conceptualization, Methodology, Writing - Reviewing & Editing, Supervision

Aleena Rubab: Investigation, Methodology, Data Curation, Formal Analysis

Kashaf Noor: Formal Analysis, Writing – Original Draft, Writing - Reviewing & Editing

Conflict of Interest

There is no conflict of interest declared by authors.

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Data Availability Statement

The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [F.Y.] upon the reasonable request.

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