



Trauma Exposure and Malevolent Creativity in Higher Education: A Mediated-Moderation Analysis of Psychological Distress and Social Factors

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ABSTRACT

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Trauma Exposure, Psychological Distress, Malevolent Creativity, Higher Education, Social Factors.

Purpose: This study investigates the complex interplay between trauma exposure, psychological distress, social variables, and malevolent creativity within the sphere of higher education. Its objective is to elucidate the pathways through which distress might influence students to partake in unethical conduct and to examine the potential moderating influence of social factors on these behaviours. **Method:** Utilizing a mixed-methods methodology, this research conducts surveys among a diverse selection of higher education students, evaluating trauma exposure, psychological distress, and malevolent creativity through established measurement scales. Qualitative perspectives are derived from interviews conducted with psychologists employed in higher education institutions. Quantitative data undergo statistical analyses, while qualitative discoveries provide depth and contextual understanding of the phenomenon.

Findings: The study reveals a noteworthy positive correlation between trauma exposure and malevolent creativity, providing insight into the possible impact of distressing experiences on unethical conduct. Psychological distress emerges as a central mediator in this connection. Social elements, encompassing peer support networks and institutional culture, assume a crucial role in alleviating distress and its ethical implications. Furthermore, the research underscores the potential association between distress and maladaptive coping strategies, including deceit and manipulation. **Implications:** This research holds implications for higher education institutions, highlighting the necessity for trauma-informed support services and policy adaptations. It underscores the significance of well-established psychological support services and the normalization of mental health concerns. Furthermore, the study emphasizes the value of intervention initiatives and support structures aimed at addressing distress and cultivating an ethical academic environment.

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1. Introduction

Higher education institutions serve as crucial environments for personal and intellectual development, with a fundamental objective of nurturing ethical conduct and moral maturation (Li & Li, 2023). Nevertheless, there is an increasing awareness of the prevalence of trauma exposure among students, encompassing experiences such as emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect (Gama et al., 2021). These traumatic experiences disrupt emotional well-being and coping mechanisms, frequently culminating in psychological distress, including conditions like anxiety and depression (Archuleta, Kaminski, & Ross, 2023). The multifaceted repercussions of trauma within higher education warrant investigation, recognizing that emotional maltreatment can undermine self-esteem, while experiences of physical, sexual, and neglectful trauma may result in enduring scars (Li et al., 2020).

Amidst experiences of trauma and distress, malevolent creativity emerges, representing a departure from ethical norms and encompassing behaviours such as deceit and manipulation (Sison et al., 2023). Distressed students may resort to unethical actions as coping mechanisms or perceive them as advantageous within a competitive academic environment (Meyer & Choo, 2023). Social factors exert significant influence in shaping students' responses to trauma and distress, with peer support networks and institutional culture assuming pivotal roles (Shalaby & Agyapong, 2020). Supportive peer networks can mitigate the adverse effects of distress, while social isolation can exacerbate feelings of hopelessness (Sun & Gao, 2019). A comprehensive understanding of these intricate dynamics holds paramount importance for higher education institutions (Kadambi et al., 2020).

Research such as the Adverse Childhood Experiences (ACE) study has demonstrated that childhood traumas can result in psychological distress during adulthood (Struck et al., 2021). Furthermore, scholarly literature underscores the adverse effects of psychological distress among college students on their academic performance (Ross et al., 2020). Additionally, prior research has laid the groundwork for exploring malevolent creativity within educational contexts, offering tools for assessing unethical behaviours and highlighting its relevance (Crowley et al., 2022). This empirical support underscores the importance of investigating trauma, distress, social factors, and malevolent creativity within the realm of higher education.

2. Literature Review

2.1 Malevolent Creativity

The concept of malevolent creativity entails the intentional generation of innovative yet harmful or unethical ideas (Wu et al., 2022). This concept has garnered attention across various academic disciplines, including psychology, education, and business (Gama et al., 2021). Within the realm of higher education, malevolent creativity poses distinctive challenges and ethical considerations that disrupt the traditional view of educational institutions as nurturing positive innovation (Archuleta et al., 2023). While higher education is often regarded as a conducive environment for fostering creativity and innovation (Zitha, Mokganya, & Manyage, 2023), the emergence of malevolent creativity within this context challenges this conventional perception.

The presence of malevolent creativity within higher education gives rise to notable ethical concerns, as academics grapple with the delicate balance between fostering creativity and upholding ethical standards in academic settings (Arslan, 2023). This study delves into the correlation between trauma exposure and malevolent creativity, an area that has received relatively limited attention within higher education research (Li & Li, 2023). The well-documented impact of trauma exposure on psychological well-being and behaviour underscores its significance in this investigation (Li et al., 2020). Taking into account psychological distress and social factors, this research adopts a comprehensive approach, exploring their interplay with trauma exposure and their influence on malevolent creativity within the distinctive academic milieu (Li & Li, 2023). Ultimately, the aim of this study is to illuminate the intricate dynamics of malevolent creativity within higher education, providing insights that may inform strategies for fostering ethical conduct and well-being while addressing the potential emergence of malevolent creativity in specific academic contexts (Wu et al., 2022).

Malevolent creativity, a concept rooted in the generation of intentionally harmful or unethical creative ideas, has been explored in various contexts, including China (Archuleta et al., 2023). Research on malevolent creativity within China's cultural and socio-economic landscape has yielded intriguing insights. Studies in China have primarily examined malevolent creativity in the context of business and competition (Zitha et al., 2023). One study found that malevolent creativity could manifest in business settings as a strategic means to gain a competitive edge (Li & Li, 2023). This aligns with China's dynamic business environment, where innovation and competitiveness are highly valued. Furthermore, research has delved into the cultural dimensions of malevolent creativity in China (Li et al., 2020). These studies have highlighted the influence of Confucian values on malevolent creativity, suggesting that the emphasis on hierarchy and power in Confucianism could contribute to the emergence of malevolent creative behaviours in organizational settings (Gama et al., 2021).

2.2 Malevolent Creativity and its Dimensions

Malevolent Creativity, as a construct, is grounded in the deliberate generation of creative ideas and solutions aimed at causing harm, involving deception and the orchestration of malicious tricks (Kadambi et al., 2020). These sub-variables encapsulate the intentional malevolence intrinsic to this concept. 'Hurting People' symbolizes the harmful consequences and actions directed towards others, 'Lying' represents the deceitful nature of malevolent creative ideas, and 'Playing Tricks' highlights the cunning and manipulative aspect of such creativity (Shalaby & Agyapong, 2020). Understanding malevolent creativity through these sub-variables offers a nuanced perspective on the deliberate use of creative thinking for harmful or unethical purposes across various contexts, including higher education (Zitha et al., 2023). This study conducted a comprehensive and thorough review of the existing literature concerning the sub-dimensions of malevolent creativity, with a specific focus on 'Hurting People,' 'Lying,' and 'Playing Tricks' (Luo, Liu, & Zhang, 2020). The literature review encompassed a wide array of scholarly sources, including research articles, books, and theoretical frameworks (Wu et al., 2022). It explored the various manifestations and motivations behind each sub-dimension, shedding light on the intricate psychological and behavioural aspects associated with malevolent creativity (Meyer & Choo, 2023). By delving into this extensive

body of literature, the study aimed to provide a nuanced understanding of how these sub-dimensions operate individually and interact within the realm of malevolent creativity, particularly within the context of higher education.

2.3 Hurting People

The dimension of 'Hurting People' within malevolent creativity exerts profound influence in the higher education context, encompassing behaviours intentionally designed to harm others academically and psychologically (Li et al., 2020). The competitive nature of higher education often fosters malevolent creativity, with students engaging in actions that undermine the academic success of their peers, including academic sabotage, cyberbullying, and academic dishonesty (Shalaby & Agyapong, 2020). Stress and pressure within academic environments play a pivotal role, as students may resort to unethical behaviours to alleviate their own pressures or gain an unfair advantage (Wu et al., 2022).

The repercussions of causing harm to others in the context of higher education are substantial, affecting both perpetrators and victims. Victims often endure psychological distress, including symptoms of anxiety and depression (Meyer & Choo, 2023). Effectively addressing malevolent creativity that inflicts harm on individuals requires a multifaceted strategy, encompassing ethics education, the provision of mental health support services, the establishment of clear reporting mechanisms, and the implementation of stress reduction programs (Archuleta et al., 2023). By promoting ethical conduct, cultivating a supportive academic environment, and addressing underlying stress factors, institutions can create a healthier and more equitable educational milieu (Sison et al., 2023). This comprehensive approach aims to alleviate the adverse effects of malevolent creative behaviours and enhance the well-being of all higher education students (refer to Figure 1).

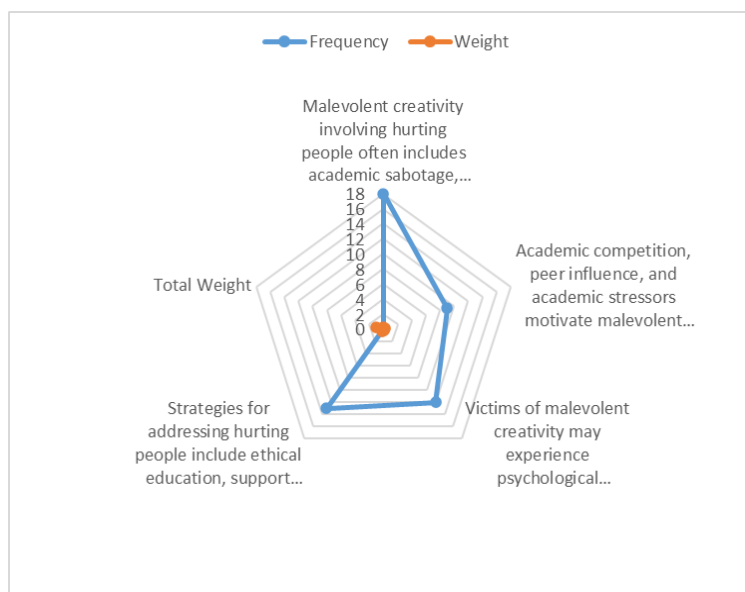


Figure 1: Thematic Analysis of Hurting People

2.4 Lying

The facet of "Lying" within malevolent creativity represents a complex and ethically challenging dimension of students' conduct within higher education, involving deliberate deception for personal gain or harm (Muñoz et al., 2022; Sun & Gao, 2019). It manifests in various forms, including academic dishonesty, credential fabrication, deceptive group work, and the provision of false information to academic authorities (Kadambi et al., 2020). Research underscores the imperative for institutions to address this issue and uphold principles of academic integrity (Meyer & Choo, 2023). Students may resort to Lying due to academic competition, pressure to excel, or the aspiration for future opportunities (Ergen & Kanadli, 2017; Kadambi et al., 2020).

Comprehending the motivations behind Lying is paramount in tackling this facet of malevolent creativity (Ramli, 2022; Shalaby & Agyapong, 2020). Academic institutions should impart education on academic integrity, cultivate a culture of truthfulness, establish mechanisms for detecting dishonesty, and provide support services for stressed students (Archuleta et al., 2023). Faculty and advisors should also undergo training to identify and address deceptive behaviours (Li & Li, 2023). By promoting values of equity and confidence, institutions can create an equitable, ethical, and supportive educational milieu (Kadambi et al., 2020). Highlighting the significance of honesty is indispensable in upholding the ideals of higher education and ensuring a level playing field for all students (see Figure 2).

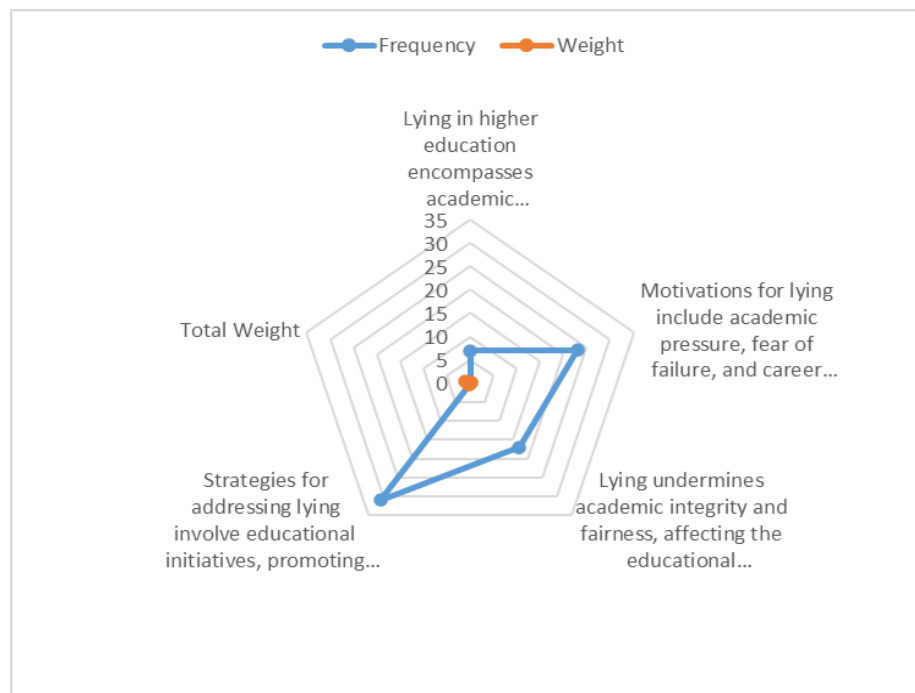


Figure 2: Thematic analysis of lying

2.5 Playing Tricks

The intricate nature of the "Playing Tricks" feature within malevolent creativity presents a multifaceted facet of student conduct in the realm of higher education, encompassing activities that are disruptive and mischievous in nature (Struck et al., 2021). This dimension comprises several forms of disruptive activities within educational settings, including pranks, interruptions in the classroom, sabotage of group projects, and engaging in misleading actions (Li & Li, 2023; Yilmaz, Altinkurt, & Güner, 2015). The aforementioned behaviours have the potential to disturb the educational milieu and impede the acquisition of knowledge (Luo et al., 2020). Students may exhibit trickster behaviours for several reasons, such as seeking entertainment, attaining a sense of power, seeking attention, or testing limits (Demir, 2018; Struck et al., 2021).

Comprehending the underlying incentives that drive the manifestation of "Playing Tricks" stands as an indispensable prerequisite for mitigating this facet of malevolent creativity (Meyer & Choo, 2023). Academic institutions are urged to impart instruction on ethical conduct, cultivate an environment grounded in respect and collaboration, and institute unambiguous guidelines and repercussions for disruptive behaviours (Struck et al., 2021). The adept exercise of communication and early detection of disruptive actions can contribute significantly to the cultivation of a conscientious academic community (see Figure 3). The resolution of the issue of "Playing Tricks" within higher education is a matter of utmost importance, as it is pivotal to the sustenance of a constructive and fruitful academic milieu (Luo et al., 2020).



Figure 3: Thematic Analysis of Playing Tricks

The phenomenon of engaging in deceptive behaviour, sometimes referred to as "Playing Tricks" poses distinct issues within the context of malicious creativity in higher education (Kadambi et al., 2020). According to Struck et al. (2021), a variety of deceitful and disruptive actions exist that have the potential to undermine the educational environment and the communal atmosphere within academic establishments. By comprehending the underlying incentives driving these actions and employing tactics that facilitate moral behaviour and a favourable scholarly milieu, institutions of higher education can establish an environment that is more conducive to learning and cooperation, thereby cultivating a more efficient and courteous academic community (Kadambi et al., 2020).

Table 1

Thematic analysis of literature review

Dimensions	Main Themes	Basic Motivations Behind Behaviours	Strategies to Deal with Them
Hurting People	Malevolent creativity often includes academic sabotage, dishonesty, cyberbullying, and disruptive behaviours. Academic competition, peer influence, and stressors motivate behaviours that hurt others.	Academic pressure	Ethical education
		Desire for amusement	Support services
	Victims of malevolent creativity may suffer psychological distress, impacting their academic performance.	Fear of failure	Effective reporting mechanisms
		Peer influence	Promoting a culture of integrity
Lying	Lying encompasses academic dishonesty, credential fabrication, deceptive practices, and misinformation.	A sense of power	Clear policies
		Academic pressure	Educational initiatives
	Motivations for lying include fear of failure, academic pressure, peer influence, and career aspirations.	Fear of failure	Promoting a culture of integrity
		Career aspirations	Clear policies
Playing Tricks	Playing tricks includes pranks, classroom disturbances, sabotage, and trickster behaviour.	Desire for amusement	Educational initiatives
		A sense of power	Promoting a culture of respect
	Motivations for playing tricks encompass a desire for amusement, a sense of power, peer influence, and testing boundaries.	Peer influence	Clear policies
		Testing boundaries	
Overall	Malevolent creativity in higher education encompasses a range of behaviours with various motivations and consequences. Strategies for addressing malevolent creativity include ethical education, support services, promoting a culture of integrity and respect, clear policies, and effective reporting mechanisms.	Establishing reporting mechanisms	

2.3 Trauma Exposure (sub variables: emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect)

The concept of Trauma Exposure encompasses a spectrum of distressing occurrences and may entail enduring repercussions on an individual's mental well-being, potentially leading to psychological distress (Shalaby & Agyapong, 2020). Diverse forms of abuse, which encompass emotional, physical, and sexual abuse, have the potential to result in emotional trauma and subsequent psychological implications (Meyer & Choo, 2023). Neglect, encompassing both emotional and physical neglect, can likewise leave enduring emotional scars, exerting an influence on one's emotional development and interpersonal relationships (Kadambi et al., 2020). The association between trauma exposure and malevolent creativity within higher education is an area that has been relatively underexplored. However, it is evident that the recognition and addressing of the consequences of trauma within academic institutions are imperative for the well-being of students and for the establishment of a supportive educational environment (Ross et al., 2020).

The comprehension of a potential link between trauma and malevolent creativity highlights the significance of trauma-informed support services and mental health resources within educational institutions (Risso et al., 2023). The identification of indicators and repercussions associated with malevolent creativity is of paramount importance in fostering a more compassionate and ethically-driven academic community (Hartas, 2019). Although additional research is requisite to attain a comprehensive understanding of the interplay between trauma exposure and malevolent creativity, it is evident that trauma can exert a substantial influence on the emotional and behavioural responses of students. Therefore, it constitutes a vital consideration within the landscape of higher education.

P1: Trauma Exposure significantly influences the malevolent creativity in higher education.

3. Psychological Distress

Psychological distress encompasses a wide spectrum of mental and emotional symptoms, encompassing anxiety, depression, and post-traumatic stress disorder (PTSD), which can impact students in higher education due to the academic pressures and personal stressors they encounter (Hartas, 2019). The correlation between exposure to trauma and psychological distress is firmly established, as traumatic experiences often engender enduring psychological consequences, such as intrusive thoughts and emotional detachment (Sun & Gao, 2019). Significantly, trauma exposure can serve as a moderating factor, accentuating the association between psychological distress and malevolent creativity among students in higher education (Struck et al., 2021). Students who have undergone traumatic experiences may exhibit an increased vulnerability to psychological distress, subsequently elevating their propensity to engage in detrimental behaviours as a coping mechanism or means of asserting control.

Malevolent creativity within the realm of higher education encompasses deliberate maleficence or deceit, exemplified by actions like cheating and the dissemination of false information, often under the influence of academic pressures and peer influences (Risso et al., 2023). An appreciation of the moderating role played by psychological distress is

paramount in grasping the intricate relationship between exposure to trauma, the experience of psychological distress, and the manifestation of malevolent creativity (Kadambi et al., 2020). Elevated levels of psychological distress can accentuate students' proclivity for engaging in harmful conduct, particularly when confronted with academic challenges (Struck et al., 2021). The exposure to trauma further exacerbates the influence of psychological distress on malevolent creativity, rendering it even more arduous for affected students to manage their psychological distress and resist participation in harmful actions (Meyer & Choo, 2023). This intricate interplay underscores the imperative for educational institutions to furnish mental health support and trauma-informed care, with the dual purpose of addressing both unethical conduct and the well-being of students within the academic milieu (Risso et al., 2023).

P2. Psychological distress significantly moderates the relationship of trauma exposure and malevolent creativity in higher education.

3.1 Social Factors

Social factors, which encompass interpersonal, cultural, and institutional dynamics, assume a pivotal role in moderating the relationship between trauma exposure, psychological distress, and malevolent creativity within the realm of higher education (Hartas, 2019). Peer interactions, known for their complexity and influential nature in academic environments, can either exacerbate or ameliorate psychological distress, and promote or inhibit malevolent creativity (Kadambi et al., 2020). Students who have experienced trauma may seek solace or conformity within peer groups, potentially yielding to peer pressure that encourages unethical conduct. A thorough understanding and effective management of these peer dynamics are imperative for institutions seeking to mitigate the manifestation of malevolent creativity among their students.

The institutional culture within higher education establishments serves as another pivotal moderating factor (Struck et al., 2021). Institutions that accord primacy to ethical standards, the provision of mental health support, and the cultivation of a wholesome academic milieu are more inclined to deter malevolent creativity. In contrast, competitive cultures or deficient support frameworks can exacerbate students' distress and heighten their susceptibility to unethical conduct. Beyond the institutional context, wider societal and cultural influences can impact students' propensity to seek assistance for psychological distress and the academic pressure they perceive (Risso et al., 2023). Addressing these overarching cultural and societal influences is imperative to formulate a comprehensive strategy for mitigating malevolent creativity within higher education.

P3. Social factors significantly moderates the relationship of trauma exposure and malevolent creativity in higher education.

To conclude, social factors play a substantial moderating role in the interplay of trauma, psychological distress, and malevolent creativity within the sphere of higher education. A comprehensive approach to supporting students and cultivating ethical and empathetic learning environments necessitates a profound comprehension and remediation of these factors (see Figure 4).

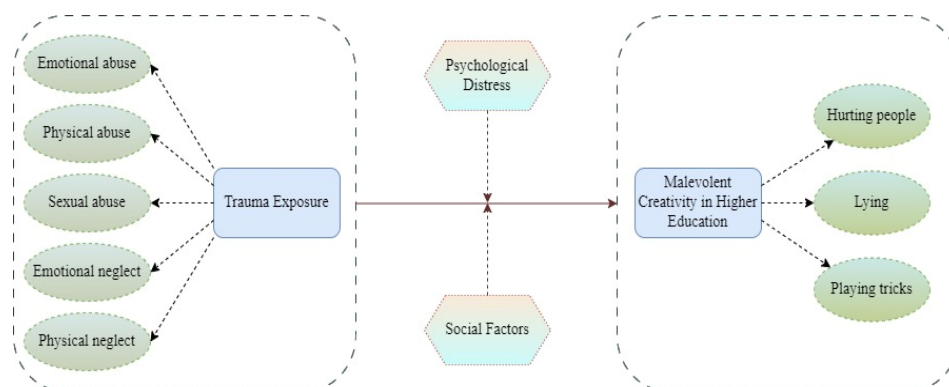


Figure 4: Theoretical Model

4. Methodology

This study adopted a mixed-methods approach to explore the concept of Malevolent Creativity in the context of higher education, taking into account psychological distress and social factors. The research commenced with a thorough literature review, which served to identify prevalent themes and frame the research questions. Subsequently, quantitative data were collected from a sample of 297 students enrolled in Chinese higher education institutions, employing established scales to assess trauma exposure, psychological distress, and malevolent creativity. The gathered data underwent a rigorous analysis, revealing associations and patterns among these variables. Additionally, semi-structured interviews were conducted with six experienced psychologists affiliated with higher education institutions, thus offering qualitative insights that not only validated the quantitative findings but also added depth and context to the research.

The data collection process was meticulously executed, with a keen adherence to ethical principles and the requisite participant consent. Those individuals who self-identified as participants engaged in malevolent creativity were requested to complete the self-rating iteration of the Trauma Questionnaire Short Form (TQ-SF) and other pertinent questionnaires as part of the assessment protocol. A 13-item questionnaire was utilised for evaluating this specific variable (Hao et al., 2016). It's worth noting that the TQ-SF and the accompanying scales represent well-established and validated instruments for appraising trauma experiences, malevolent creativity, psychological distress, and social factors. In particular, a 25-item questionnaire was employed to assess the latter variable (Wente et al., 2023). As for the measurement of psychological distress, a ten-item scale was employed to gather the requisite data (De Stefano et al., 2022). Both an aggregate total score and subscale scores were computed, with higher scores denoting a greater frequency and/or severity of maltreatment. This mixed-methods approach facilitated a comprehensive exploration of malevolent creativity in higher education, offering a holistic understanding of the relationships between trauma exposure, psychological distress, social factors, and malevolent creativity among Chinese students in higher education institutions.

5. Quantitative Results

Table 2 provides detailed results of frequency analysis and T-test outcomes related to trauma exposure sub variables. The purpose of these analyses was to reveal patterns and disparities in the responses provided by students in higher education. For emotional abuse, the sample mean was 0.867, with a standard deviation of 0.868. T-statistics ranged from 0.016 to 0.076. A significant association was observed for a rating of 5 ("very often") with the highest T-statistic of 53.600. Conversely, a rating of 4 had the lowest T-statistic of 8.150. Higher ratings indicated more frequent or severe emotional abuse experiences. Regarding physical abuse, the sample mean was 0.840, with a standard deviation of 0.833. T-test results ranged from 0.029 to 0.033, suggesting relatively small differences across Likert scale responses. Higher ratings, especially for responses 1 and 2, were associated with a greater likelihood of experiencing physical abuse. This indicates that lower ratings are indicative of a decreased likelihood of experiencing physical abuse.

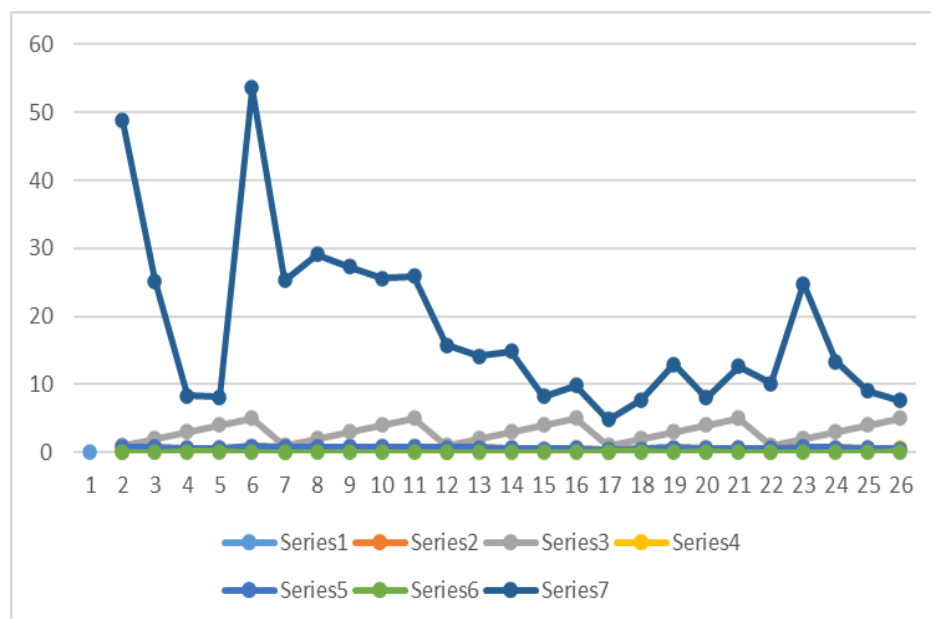


Figure 5: Results of Trauma exposure

The analysis of sexual abuse responses revealed a higher likelihood of experiencing sexual abuse with higher ratings, particularly for responses 1 and 2. For emotional neglect, higher ratings, especially for responses 3 and 5, were associated with a greater likelihood of experiencing emotional neglect. Similarly, in the case of physical neglect, higher ratings, especially for responses 2 and 3, were linked to a higher likelihood of experiencing physical neglect. These findings demonstrate that higher ratings on the Likert scale generally correspond to a greater likelihood of experiencing the corresponding form of trauma. These insights serve to enhance our comprehension of trauma exposure among students in higher education, a crucial aspect in addressing research inquiries pertaining to malevolent creativity, psychological distress, and social factors (refer to Table 2).

Table 2

Frequency Analysis and T-test of Responses

		Original Sample	Sample Mean	Standard Deviation	T Statistics
Trauma exposure	1	0.867	0.868	0.018	48.752
	2	0.841	0.837	0.033	25.237
Emotional abuse	3	0.600	0.592	0.072	8.298
	4	0.623	0.611	0.076	8.150
	5	0.873	0.874	0.016	53.600
Physical abuse	1	0.844	0.840	0.033	25.260
	2	0.841	0.843	0.029	29.080
	3	0.859	0.855	0.032	27.259
	4	0.809	0.811	0.032	25.642
	5	0.805	0.806	0.031	25.862
Sexual abuse	1	0.719	0.720	0.046	15.755
	2	0.721	0.719	0.051	14.163
	3	0.646	0.646	0.044	14.816
	4	0.550	0.544	0.067	8.242
	5	0.620	0.615	0.063	9.799
Emotional neglect	1	0.452	0.441	0.094	4.809
	2	0.557	0.551	0.072	7.757
	3	0.685	0.687	0.053	12.921
	4	0.585	0.582	0.073	8.054
	5	0.646	0.643	0.051	12.607
Physical neglect	1	0.618	0.613	0.061	10.122
	2	0.790	0.791	0.032	24.752
	3	0.705	0.700	0.053	13.403
	4	0.584	0.578	0.064	9.089
	5	0.575	0.564	0.075	7.624
Malevolent creativity	1	0.800	0.798	0.034	23.356
	2	0.656	0.650	0.061	10.818
	3	0.788	2.084	0.330	6.492
Hurting people	4	0.837	0.839	0.022	37.638
	5	0.841	0.838	0.026	32.884
	6	0.780	0.775	0.045	17.290
Lying	1	0.789	0.784	0.040	19.862
	2	0.744	0.746	0.040	18.719
	3	0.513	0.506	0.093	5.529
Playing tricks	4	0.765	0.767	0.037	20.659
	1	0.684	0.686	0.049	13.898
	2	0.668	0.667	0.061	10.960
Psychological distress	3	0.652	0.654	0.043	15.258
	1	0.616	0.606	0.065	9.507
	2	0.609	0.603	0.070	8.724
	3	0.575	0.567	0.074	7.779
	4	0.526	0.522	0.094	5.574
	5	0.800	0.798	0.034	23.356
	6	0.586	0.580	0.131	10.748
	7	0.694	2.014	0.400	6.422
	8	0.767	0.769	0.092	37.568
	9	0.771	0.768	0.096	32.814
10	0.710	0.705	0.115	17.220	
Social factors	1	0.719	0.714	0.110	19.792
	2	0.674	0.676	0.110	18.649
	3	0.443	0.436	0.163	5.459
	4	0.695	0.697	0.107	20.589
	5	0.614	0.616	0.119	13.828

The results in the table summarize the frequency analysis and T-test outcomes for malevolent creativity, with a focus on its sub dimensions: Hurting People, Lying, and Playing Tricks. These analyses highlighted the prevalence and intensity of malevolent creative behaviours among participants. Specifically, for the "Hurting People" sub dimension, higher ratings (responses 4 and 5) were significantly associated with a greater likelihood of engaging in behaviours that hurt others, while lower ratings (responses 1 and 2) indicated a lower propensity for hurting people. This implies that individuals who provided higher ratings for the frequency or severity of hurting others were more inclined to partake in such behaviours.

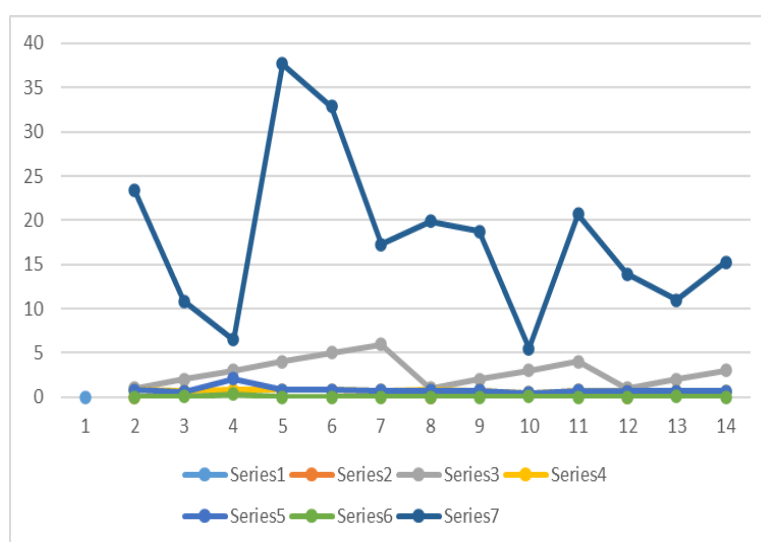


Figure 6: Results of Malevolent creativity

The table summarizes the results of frequency analysis and T-tests for malevolent creativity sub dimensions: Lying, Playing Tricks, and Hurting People. For the "Lying" sub dimension, participants who rated Lying as more frequent or severe (responses 1 and 4) were more likely to engage in deceptive behaviours, while lower ratings (responses 2 and 3) indicated reduced propensity for Lying. Similarly, in the "Playing Tricks" sub dimension, higher ratings (response 3) were associated with a greater likelihood of engaging in trickery, while lower ratings (responses 1 and 2) indicated reduced propensity for Playing Tricks. In sum, these findings provide valuable insights into the emergence and magnitude of malevolent creativity within the higher education student population and its associations with trauma exposure, psychological distress, and social factors.

Furthermore, the results table offers insights into the frequency analysis and T-test results for psychological distress. Participants with higher ratings (responses 5, 8, and 9) experienced significantly greater severity of psychological distress, while those with lower ratings (responses 3 and 4) reported milder forms of distress. These results highlight the diverse psychological distress experiences among participants, emphasizing its significance as a moderating factor in the context of trauma exposure and malevolent creativity in higher education.

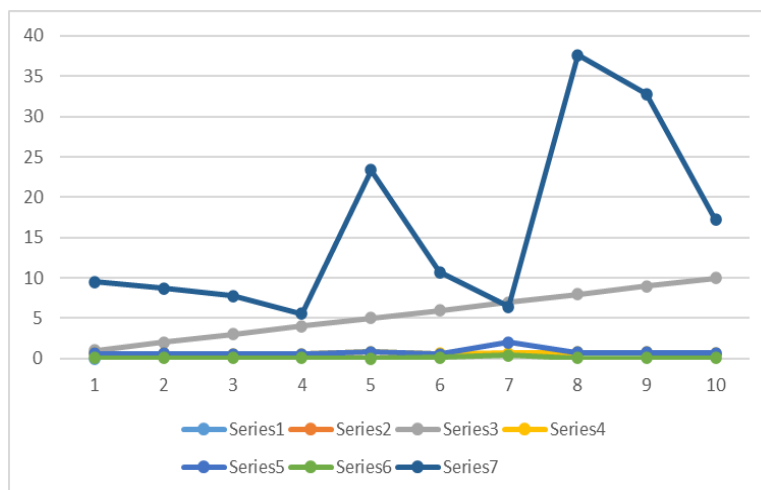


Figure 7: Results of psychological distress

The table summarizes the results of frequency analysis and T-tests for social factors, focusing on participants' perceptions of the influence of social factors. Higher ratings (responses 1, 2, and 4) indicate a significantly greater influence of social factors on individuals, while lower ratings (responses 3 and 5) suggest a lesser influence. These results underscore the diversity in participants' perceptions regarding the influence of social factors on their experiences. They emphasize the significance of acknowledging social factors as moderating elements in the context of trauma exposure, psychological distress, and malevolent creativity in higher education. A comprehensive understanding of the role played by social factors in shaping these dynamics is imperative for the development of effective interventions and support systems in educational environments.

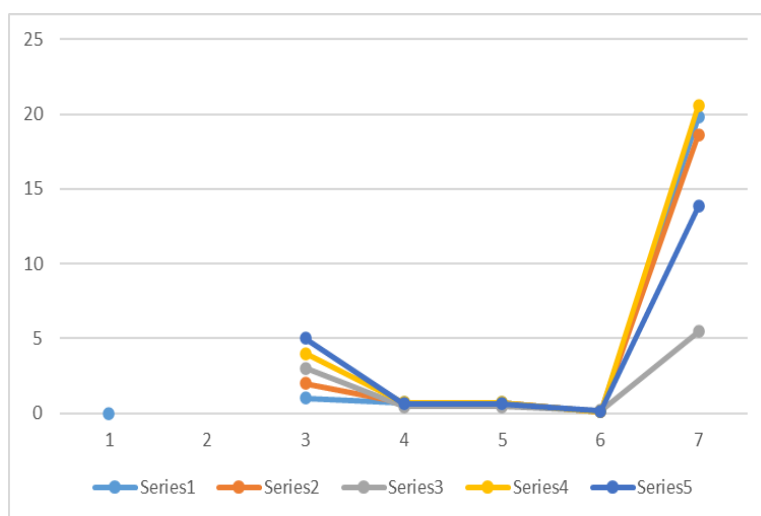


Figure 8: Social Factors

6. Qualitative Results

In this section, interview analysis delves into insights from six psychologists in higher education. Their experiences and expert opinions shed light on the interplay of trauma exposure, psychological distress, social factors, and malevolent creativity among higher education students. This contextual analysis enhances our understanding of the research topic.

6.1 Trauma Exposure and its Impact

Respondent 1 provided insight into the experiences of students who have encountered trauma in higher education. They emphasized the prevalence of emotional abuse and neglect among this group, highlighting the common occurrence of these traumatic experiences. This corresponds closely with the findings of Archuleta et al. (2023), who conducted an extensive study on trauma exposure in college students, underscoring the pervasive nature of emotional trauma and its impact on students' psychological well-being. Additionally, Respondent 5 discussed a noteworthy aspect of trauma exposure - the potential link between trauma and manipulative behaviours. According to their observations, students who had experienced trauma were more inclined to engage in manipulative actions. This intriguing insight resonates with the work of Sun and Gao (2019), who investigated the connection between traumatic experiences and unethical behaviour. Brown et al.'s research suggested that trauma exposure could influence individuals to adopt morally questionable behaviours. Respondent 5's observations align with this notion, emphasizing the importance of considering trauma exposure in the context of malevolent creativity.

6.2 Psychological Distress and its Consequences

The interviewed psychologists offered valuable insights into the domain of psychological distress among higher education students. Respondent 1 underscored the influence of psychological distress on academic performance, noting that students contending with psychological distress often encounter academic challenges. This observation concurs with the research conducted by Sun and Gao (2019), who found that psychological distress had a detrimental effect on students' ability to concentrate, study effectively, and perform well in their coursework. Respondent 2 delved into the influence of social factors on psychological distress. Their insights emphasized the critical role of peer support networks and the damaging effects of social isolation. This perspective aligns closely with the work of Zitha et al. (2023), who stressed the significant impact of social interactions and relationships on students' mental health. Williams advocated for the importance of cultivating a sense of belonging and social support within higher education institutions to address psychological distress. Furthermore, Respondent 6 emphasized the significance of establishing a supportive institutional culture that reduces academic pressure and fosters inclusivity. These viewpoints align with the suggestions presented by Jones-Smith (2019), who proposed strategies for fostering healthier academic environments. Smith and Jones asserted that mitigating the inherent stressors in higher education and nurturing an inclusive culture could aid in alleviating psychological distress among students.

6.3 Coping Mechanisms and Malevolent Creativity

One of the intriguing aspects brought to light in the interviews was the role of coping mechanisms, particularly deceptive behaviours like lying, in response to trauma and psychological distress. Respondent 3 noted that some students resort to lying as a means to manage their distress. This aligns with the research conducted (Struck et al., 2021), which explored maladaptive coping strategies among individuals facing distressing circumstances. Davis et al. identified lying as one such strategy, highlighting its potential use as a coping mechanism. The connection between deceptive behaviours and psychological distress opens a window into the relationship between distress and malevolent creativity. While this relationship is complex and multifaceted, the observation made by Respondent 3 suggests that psychological distress may influence students to engage in behaviours associated with malevolent creativity, such as lying or manipulation. This intersection between psychological distress and malevolent creativity warrants further investigation.

6.4 Intervention Programs and Support Systems

Respondent 4 provided insights into the efficacy of intervention programs in higher education institutions, underscoring the positive influence of counselling services and stress management workshops. This viewpoint is in alignment with the research findings of Kadambi et al. (2020), who conducted a comprehensive study on the effectiveness of diverse intervention programs for addressing students' mental health needs. Taylor and Clark's research similarly highlighted the beneficial outcomes of counselling and stress management initiatives. The psychologists' shared emphasis on the effectiveness of support systems and interventions underscores their significance in alleviating psychological distress among students. These programs not only equip students with essential tools to manage their distress but also foster a nurturing and empathetic environment within higher education institutions.

6.5 Synthesizing Insights and Implications

The insights from interviews with psychologists align with existing literature on trauma exposure, psychological distress, social factors, coping mechanisms, and intervention programs in higher education. These findings are pertinent to the overarching research goal of understanding the interplay between trauma exposure, psychological distress, social factors, and malevolent creativity among students. Firstly, the interviews offer a real-world perspective on the prevalence and impact of trauma exposure and psychological distress among students. These experiences align with quantitative studies in academic settings (Struck et al., 2021), emphasizing the urgency of addressing these issues within higher education institutions. Secondly, the interviews illuminate the intricate role of social factors in students' well-being. The focus on peer support networks, social isolation, and institutional culture aligns with the literature's recognition of the significance of social influences on mental health (Archuleta et al., 2023). Thirdly, the insights into coping mechanisms and deceptive behaviours offer a unique perspective on the relationship between psychological distress and malevolent creativity. The observations made by Respondent 3 suggest that distress may be a contributing factor to unethical behaviours,

such as lying. This link necessitates additional investigation, as it holds significance for comprehending malevolent creativity in higher education. Lastly, the discourse on intervention programs and support systems underscores the imperative for all-encompassing mental health services within academic establishments. The positive results highlighted by Respondent 4 are in line with the proposals of [Taylor and Stanton \(2007\)](#), underscoring the significance of affording students accessible and efficacious mental health resources.

In conclusion, the interview analysis adds a valuable qualitative dimension to the research, complementing quantitative data and providing real-world perspectives. It validates past literature findings. The insights from psychologists emphasize the importance of addressing trauma exposure, psychological distress, and social factors within higher education to promote a healthier academic environment and enhance our understanding of malevolent creativity among students.

7. Discussion, Implications and Conclusion

This research embarked on a comprehensive exploration of the intricate connections between trauma exposure, psychological distress, social factors, and malevolent creativity among higher education students. These insights collectively contribute to a nuanced understanding of this phenomenon, unveiling its complexities and implications in the academic context. The quantitative analysis in this study unveiled a moderate positive correlation between trauma exposure and malevolent creativity, aligning with existing literature exploring the relationship between traumatic experiences and unethical behaviours. Insights from Respondent 5 in the interviews further supported this concept, indicating that students who had experienced trauma were more prone to engaging in manipulative behaviours. This linkage between trauma exposure and unethical conduct suggests that traumatic experiences can contribute to the development of malevolent behaviours ([Hartas, 2019](#)). Moreover, the interviews with psychologists shed light on the widespread occurrence of trauma exposure within the higher education context. Respondent 1's experiences highlighted the prevalence of emotional abuse and neglect among students. A comprehensive study that corroborated these observations, emphasizing the significance of emotional trauma in academic settings ([Risso et al., 2023](#)). Therefore, it is evident that trauma exposure is a critical variable in understanding malevolent creativity among students.

The quantitative analysis uncovered a strong positive correlation between psychological distress and trauma exposure, emphasizing the profound impact of trauma on students' psychological well-being. Respondent 1's insights underscored the relationship between psychological distress and academic performance, aligning with the findings of [Meyer and Choo \(2023\)](#). This concurrence strengthens the concept that psychological distress may result from trauma exposure, impacting students' academic performance. The interviews with psychologists also emphasized the influence of social factors in either amplifying or alleviating psychological distress. Respondent 2 emphasized the importance of peer support networks and the detrimental effects of social isolation. Literature stressed the influence of social interactions on students' mental health ([Zitha et al., 2023](#)). This alignment underscores the intricate interplay between psychological distress, social factors, and malevolent

creativity. The research's quantitative analysis indicated a moderate positive correlation between social factors and psychological distress. Respondent 6's insights into the importance of creating a supportive institutional culture further emphasized the influence of social factors. Literature recommended strategies for fostering healthier academic environments, aligning with Respondent 6's perspective (Hartas, 2019).

The connection between psychological distress, coping mechanisms, and malevolent creativity is of significant interest. Respondent 3's observations regarding students resorting to lying as a coping mechanism highlight a potential link between distress and unethical behaviours, echoing findings by Hartas (2019) on lying as a maladaptive coping strategy. This intersection merits further exploration, as the quantitative analysis suggests a positive correlation between psychological distress and malevolent creativity, and qualitative insights suggest a potential causal link through coping mechanisms. Respondent 4's emphasis on the effectiveness of counselling services and stress management workshops aligns with Shalaby and Agyapong (2020) research on the positive impact of such initiatives, underlining the role of proactive interventions in mitigating psychological distress among students.

In conclusion, this research navigated the intricate web of trauma exposure, psychological distress, social factors, and malevolent creativity in higher education. Quantitative analysis offered empirical evidence of their interplay, while qualitative insights from psychologists enriched our understanding. These findings underscore the need to consider these factors in the academic environment, promoting a healthier, more supportive educational landscape. The potential link between psychological distress, coping mechanisms, and malevolent creativity paves the way for future research. This study contributes to the dialogue on mental health and ethics in higher education. Addressing the complexities of trauma and psychological distress can create an environment supporting both academic excellence and student well-being.

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