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Understanding PTSD in Early Adults: The Role of Humour Appreciation and Emotional Regulation

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ABSTRACT

Early adulthood (ages 19–40) represents a critical developmental period characterized by identity consolidation, career formation, and relational development, making individuals vulnerable to trauma-related psychological difficulties such as post-traumatic stress disorder (PTSD). Emerging evidence suggests that positive psychological constructs, including humour appreciation and emotional regulation, may serve as protective mechanisms against trauma-related distress. This study aimed to examine the relationships among humour appreciation, emotional regulation, and PTSD symptoms in a non-clinical sample of Indian early adults. A cross-sectional correlational design was employed, with 140 participants completing standardized measures: the Humour Styles Questionnaire (HSQ), the Emotion Regulation Questionnaire (ERQ), and the PTSD Checklist for DSM-5 (PCL-5). Nine participants were excluded due to unreliable responses, resulting in a final sample of 131. Data were collected via online and offline questionnaire forms, taking approximately 15–20 minutes per participant. Pearson correlation analyses revealed significant positive associations between humour appreciation and adaptive emotional regulation strategies, and significant negative associations between both humour appreciation and emotional regulation with PTSD symptoms. Multiple regression and mediation analyses indicated that emotional regulation partially mediated the relationship between humour appreciation and PTSD symptoms, suggesting that the protective effect of humour operates, in part, through enhanced regulatory capacities. These findings highlight humour appreciation as a potential cognitive-emotional resource that can bolster resilience and mitigate trauma-related distress in early adults. The study contributes to positive psychology and trauma literature by integrating culturally relevant factors, emphasizing strengths-based approaches, and identifying targets for early interventions in non-clinical populations.

Keywords: humour appreciation, emotional regulation, PTSD, early adults, positive psychology, resilience

INTRODUCTION

Mental health challenges among early adults (ages 19 to 40) are increasingly recognized as a global concern, with significant implications for psychological well-being and societal functioning (World Health Organization, 2023). During this life stage, individuals face crucial developmental transitions such as establishing intimacy, pursuing careers, and managing autonomy, as proposed by Erik Erikson's psychosocial development theory. According to Erikson (1950), this stage, referred to as "Intimacy vs. Isolation," involves forming meaningful emotional connections while developing a stable sense of self. Amid these transitions,

emotional resilience and coping mechanisms play a vital role in maintaining psychological health. Two critical yet underexplored constructs that may influence mental health in early adulthood are humour appreciation and emotional regulation, particularly in the context of post-traumatic stress disorder (PTSD).

PTSD is a debilitating psychological condition resulting from exposure to traumatic events. It often manifests through intrusive thoughts, emotional numbing, hyperarousal, and avoidance behaviours (American Psychiatric Association, 2022). Early adults, due to their transitional roles and responsibilities, are uniquely vulnerable to both trauma exposure and long-term psychological consequences (Galatzer-Levy et al., 2018). Despite an increasing focus on PTSD and its clinical management, the nuanced role of emotional regulation and coping styles such as humour has not received proportionate attention in non-clinical populations of this age group.

Humour appreciation, while often relegated to the realm of entertainment, has emerged as a potential protective factor in psychological health. It reflects the cognitive-affective ability to perceive, enjoy, and emotionally respond to humorous stimuli (Ruch et al., 2010). When viewed through a clinical lens, humour appreciation may serve as an adaptive emotion regulation strategy that reduces stress responses, facilitates reappraisal of negative situations, and enhances interpersonal functioning (Samson and Gross, 2012). However, the relationship between humour and trauma-related symptoms remains underexplored, particularly in populations navigating early adulthood, a stage marked by both vulnerability and opportunity for growth.

Emotional regulation refers to the processes by which individuals influence the emotions they have, when they have them, and how these emotions are experienced and expressed (Gross, 1998). It plays a central role in psychological adaptation and is crucial for maintaining mental health. Maladaptive emotional regulation strategies, such as suppression or avoidance, have been strongly linked to increased vulnerability to anxiety, depression, and PTSD (Tull et al., 2007). Conversely, adaptive strategies like cognitive reappraisal have been associated with greater resilience and improved emotional functioning. Within the developmental window of early adulthood, emotional regulation skills are often still maturing, and individual differences in these skills can significantly influence how stress and trauma are processed (Zimmermann and Iwanski, 2014).

PTSD, characterized by persistent dysregulation of affect and cognition following trauma, may result in emotional rigidity or avoidance, which further hampers healthy coping. Several studies suggest that individuals with PTSD often exhibit deficits in emotional regulation, leading to heightened emotional reactivity and difficulty in managing distress (Cloitre et al., 2019). However, there is growing interest in identifying adaptive pathways that could buffer against the adverse psychological outcomes of trauma exposure. One such potential buffer is the capacity for humour, which may function as a flexible and socially acceptable emotion regulation tool.

Humour appreciation as a form of cognitive reappraisal may allow individuals to reinterpret stressful events in a less threatening manner, thereby reducing their emotional impact (Martin,

2007). Research has indicated that individuals with higher levels of humour appreciation tend to experience greater psychological well-being, improved interpersonal relationships, and lower symptoms of anxiety and depression (Kuiper et al., 2004). Despite these findings, the specific role of humour appreciation in the regulation of trauma-related distress remains relatively under-investigated, especially within the context of non-clinical early adult populations who may have subclinical PTSD symptoms or histories of trauma exposure.

The intersection of humour appreciation, PTSD, and emotional regulation offers a compelling lens through which to understand adaptive psychological functioning in early adults. While humour has traditionally been considered a trait or coping mechanism, contemporary literature increasingly views it as an emotion regulation strategy that engages both cognitive and affective systems (Samson and Gross, 2012). In trauma-related contexts, humour may act as a protective buffer by reducing the intensity of emotional responses, increasing psychological distance from the traumatic event, and promoting positive reinterpretation (Abel, 2002). Emotional regulation, on the other hand, influences how traumatic memories are processed and integrated, affecting both symptom severity and recovery outcomes (Ehring and Quack, 2010).

There is also evidence that emotional regulation acts as a mediating factor between trauma exposure and psychological outcomes, which opens the possibility that humour appreciation may serve a similar or interacting function. However, the exact nature of the relationship between these three constructs remains ambiguous. Most existing studies focus on humour as a general trait or as part of a broader coping repertoire, rather than specifically measuring humour appreciation as a cognitive-emotional capacity. Similarly, while emotional regulation deficits have been widely studied in clinical PTSD populations, little attention has been paid to how these processes function in non-clinical or subclinical individuals navigating trauma histories during early adulthood.

This gap is especially relevant in cultural contexts like India, where discussions around trauma, mental health, and coping strategies are still evolving in both clinical and non-clinical spaces. Cultural norms and social expectations may influence how humour is perceived, how emotions are regulated, and how trauma is interpreted. Despite a growing body of research on PTSD and emotional regulation, few Indian studies have examined humour appreciation within this framework, and none to date have explored the combined relationship between these three variables among early adults.

The lack of integrative research connecting humour appreciation, PTSD symptoms, and emotional regulation is particularly notable given that these constructs do not operate in isolation. Humour may influence emotional regulation patterns, which in turn may mediate the severity or expression of PTSD symptoms. For instance, individuals with a high capacity to appreciate humour may be more likely to engage in adaptive regulation strategies such as positive reappraisal or emotional reframing. These strategies can reduce emotional overwhelm and prevent the chronic activation of stress pathways that often characterize PTSD (Bonanno and Keltner, 1997). Yet, without empirical investigation, these theoretical links remain speculative.

Furthermore, most existing literature has employed Western samples, which may not generalize to collectivist societies such as India. In collectivist cultures, humour is often embedded within social relationships and used to maintain harmony, reduce interpersonal tension, or avoid direct confrontation (Nezlek and Derks, 2001). This suggests that humour appreciation may not only serve as an individual coping mechanism but also reflect broader socio-cultural strategies for managing distress. Given the rising rates of trauma exposure and mental health concerns among Indian youth and young adults, understanding culturally embedded regulation mechanisms such as humour is both timely and necessary.

Emotional regulation research in India has primarily focused on clinical populations or adolescents, leaving early adults comparatively underrepresented. Likewise, humour-based studies have often centered on humour styles (e.g., affiliative or self-defeating humour) rather than the broader cognitive-affective construct of humour appreciation. Without exploring how humour appreciation interacts with emotional regulation strategies and PTSD symptomatology in this demographic, interventions may overlook a valuable protective factor. This study aims to address that limitation by systematically investigating the relationships among these three constructs within an Indian sample of early adults.

The conceptual foundation of this study is informed by Gross's (1998) process model of emotion regulation, which identifies antecedent- and response-focused strategies for regulating affective experiences. Cognitive reappraisal, an antecedent-focused strategy, involves altering one’s interpretation of a situation to change its emotional impact. Humour appreciation may function in a similar manner, allowing individuals to cognitively reframe distressing events and thereby modulate their emotional responses. This perspective aligns with the broaden-and-build theory of positive emotions (Fredrickson, 2001), which posits that positive affective states such as amusement can expand cognitive flexibility, build resilience, and facilitate recovery from adverse experiences.

From this theoretical standpoint, humour appreciation is not merely a personality trait or passive form of entertainment, but a dynamic cognitive-emotional resource with regulatory potential. It may play a critical role in how early adults navigate and recover from traumatic experiences. Likewise, the severity of PTSD symptoms may be influenced not only by the trauma itself, but by the individual’s capacity to regulate emotional responses and engage with emotionally complex stimuli such as humour. Emotional dysregulation, which often accompanies PTSD, can limit this capacity, further complicating recovery. The interplay of these three variables could therefore illuminate new pathways for understanding post-trauma adaptation.

This study also draws upon empirical findings that suggest strong inverse relationships between adaptive emotional regulation and PTSD symptom severity (Tull et al., 2007), as well as positive associations between humour and psychological resilience (Kuiper et al., 2004). However, few if any studies have examined humour appreciation as a distinct variable in this triadic framework. By exploring how humour appreciation correlates with both emotional regulation and PTSD symptoms, this research intends to bridge an important theoretical and empirical gap, offering a more holistic understanding of psychological functioning in early adulthood.

Understanding the dynamics among humour appreciation, PTSD, and emotional regulation is not only theoretically significant but also practically valuable. Most early adults do not seek clinical support for trauma-related symptoms unless they are severe or disruptive (Kessler et al., 2005). This highlights the importance of identifying protective psychological factors in non-clinical populations that may prevent subthreshold trauma symptoms from developing into chronic psychopathology. Exploring these constructs in a non-clinical sample of early adults can provide valuable insights into naturalistic coping mechanisms that operate outside the formal boundaries of therapy or psychiatric care.

The inclusion of humour appreciation as a variable is particularly important in this context. While clinical approaches to PTSD often focus on exposure-based or pharmacological treatments, there is growing interest in incorporating positive psychology elements into trauma recovery. Humour-based interventions, although still emerging, have shown promise in improving mood, increasing cognitive flexibility, and reducing emotional avoidance (Gelkopf, 2011). However, the effectiveness of such approaches depends largely on the individual's baseline capacity to appreciate humour. If humour appreciation is found to be positively associated with better emotional regulation and lower PTSD symptoms, it could inform future low-intensity, culturally adaptable interventions that enhance resilience through positive engagement.

Additionally, given the increasing social pressures and mental health stressors faced by young adults in India including academic competition, job uncertainty, and shifting social roles; the findings of this study could have implications for mental health promotion in educational and occupational settings. By identifying whether humour appreciation serves as an adaptive emotional regulation tool in trauma-exposed individuals, interventions can be designed to promote healthier coping patterns in environments where mental health resources may be limited or stigmatized.

In light of the aforementioned theoretical and empirical perspectives, it becomes clear that there is a significant gap in the literature regarding the combined role of humour appreciation and emotional regulation in understanding PTSD symptoms, particularly among early adults in a non-clinical Indian context. Most trauma-related research emphasizes symptom reduction and psychopathology, whereas this study seeks to take a strengths-based approach by examining how positive psychological traits, like humour appreciation, may act as buffers against emotional dysregulation and distress.

Moreover, there is a growing recognition that trauma should be understood not only through clinical diagnoses but also by examining its psychological correlates across the general population. Subclinical PTSD symptoms often go unnoticed, yet they can impair daily functioning and emotional well-being. The present study adopts a dimensional perspective of trauma, which considers the presence of trauma-related symptoms on a spectrum rather than as a binary diagnostic threshold. This approach allows for a more nuanced understanding of how trauma interacts with individual strengths and regulation processes among early adults.

The focus on individuals aged 19 to 40, based on Erikson's psychosocial theory of development, is intentional and developmentally grounded. Early adulthood represents a

critical life phase during which emotional regulation skills are consolidated, identity becomes more stable, and individuals face repeated exposure to potentially stressful life events. Investigating psychological adaptation during this stage can yield insights with long-term relevance for adult mental health trajectories. This study, therefore, aims to contribute to both theoretical literature and applied psychology by examining how humour appreciation and emotional regulation relate to PTSD symptoms within this key developmental period.

Given the conceptual overlap and empirical potential of humour appreciation, emotional regulation, and PTSD symptoms, the present study seeks to systematically explore their interrelationships in a sample of early adults. The primary objective is to assess whether humour appreciation is associated with better emotional regulation and lower PTSD symptoms. A secondary objective is to investigate whether emotional regulation mediates the relationship between humour appreciation and PTSD symptoms. These objectives align with a growing emphasis in psychology on identifying protective psychological mechanisms that support resilience in the face of adversity. This study will focus on the following key research questions:

- Is there a significant relationship between humour appreciation and emotional regulation among early adults?
- Is there a significant relationship between humour appreciation and PTSD symptoms in this population?
- Is there a significant relationship between emotional regulation and PTSD symptoms?
- Does emotional regulation mediate the relationship between humour appreciation and PTSD symptoms?

By addressing these questions, the study aims to clarify whether humour appreciation plays a direct or indirect role in influencing trauma-related outcomes and regulatory functioning. It also aims to determine whether emotional regulation acts as a potential pathway through which humour appreciation affects PTSD symptoms. The inclusion of mediation analysis will help establish whether humour appreciation contributes to lower PTSD symptoms primarily by enhancing emotional regulation, or whether it has an independent effect.

These questions are framed within a positive psychology and developmental psychopathology perspective, with an emphasis on resilience and adaptive functioning rather than pathology alone. In doing so, the study seeks to offer both theoretical insights and practical relevance to the fields of trauma psychology, emotion science, and mental health promotion.

In addition to addressing theoretical gaps, this study offers methodological value by focusing on constructs measured with established, validated psychometric tools. Humour appreciation will be assessed using the Humour Styles Questionnaire (HSQ) or other culturally adapted scales, while PTSD symptoms will be measured through the PTSD Checklist for DSM-5 (PCL-5). Emotional regulation will be assessed using the Emotion Regulation Questionnaire (ERQ), which captures both expressive suppression and cognitive reappraisal strategies. These standardized tools allow for rigorous data collection and statistical analysis, ensuring that the relationships among the constructs can be meaningfully interpreted.

By employing a cross-sectional, correlational design in a non-clinical Indian population of early adults, the study emphasizes ecological validity. While experimental designs provide causal clarity, correlational studies are particularly suited for uncovering naturally occurring associations, especially when studying variables embedded in complex psychosocial processes like trauma response and emotional coping. Furthermore, targeting a non-clinical population broadens the applicability of the findings beyond those formally diagnosed with PTSD, highlighting subthreshold experiences that are often neglected in clinical literature.

Another key strength of this research lies in its culturally sensitive framing. By recognizing the unique sociocultural norms that shape how humour and emotion are expressed and regulated in Indian society, the study addresses the need for more contextually grounded psychological research. This can support the development of more culturally relevant intervention models and mental health outreach programs tailored to early adults in India, especially in educational institutions, workplaces, and community settings.

In summary, this study aims to contribute to the growing body of literature on positive psychological resources by examining how humour appreciation and emotional regulation interact in relation to PTSD symptoms among early adults aged 19 to 40. By addressing an underexplored triadic relationship in a non-clinical Indian sample, the research offers potential insights into preventive mental health strategies, early detection of emotional dysregulation, and the incorporation of culturally appropriate, strengths-based interventions.

The implications of this study extend to both research and practice. Theoretically, it advances our understanding of how cognitive-affective traits such as humour appreciation influence emotional adaptation following trauma. Practically, it provides evidence that can inform psychoeducational programs, campus wellness initiatives, and trauma-informed mental health outreach targeted toward early adults. If humour appreciation is shown to support emotional regulation and reduce trauma-related distress, it could become a valuable target in resilience-building frameworks within both clinical and community settings.

Finally, this investigation aligns with broader calls in psychology to integrate culturally relevant constructs and positive psychological approaches into trauma and emotion research. By grounding the study in Erikson’s developmental model and Indian sociocultural context, it positions itself at the intersection of developmental, cultural, and clinical psychology.

LITERATURE REVIEW

Byrne and Kangas (2022) examined the effectiveness of humour and acceptance as emotion regulation strategies in response to trauma exposure. The study involved 228 university students who were randomly assigned to one of three groups: humour, acceptance, or control. Participants watched a distressing trauma-analogue film clip online, and their emotional responses and memory for trauma-related cues were measured. Findings showed that there was no significant reduction in distress across groups. However, individuals with high trait acceptance recalled more trauma cues in the humour and acceptance groups, while those with low trait acceptance recalled fewer, regardless of group. The study concluded that the effectiveness of humour or acceptance as coping strategies is influenced more by an individual's existing emotional tendencies than by brief external instruction.

Young and Kyranides (2022) examined emotion regulation strategies and humour styles in relation to callous-unemotional (CU) traits and alexithymic traits. The study recruited 538 community participants aged 18 to 65 using an online self-report battery and conducted hierarchical regression analyses to evaluate predictors of CU and alexithymic traits. Findings revealed that expressive suppression positively predicted both CU and alexithymic traits, while cognitive reappraisal negatively predicted them. Aggressive humour was a positive predictor of CU traits; self-defeating humour also positively predicted alexithymic traits; affiliative and self-enhancing humour negatively predicted both trait types, though self-enhancing humour was a significant negative predictor only for alexithymic traits. The study concluded that while emotion regulation difficulties are common to both traits, their humour style associations differ, suggesting that interventions targeting maladaptive humour and regulation strategies should be tailored to each trait's profile.

Akram et al. (2020) examined whether individuals with clinically significant depressive symptoms differ from non-depressed controls in their interpretation of depressive internet memes and whether emotion regulation difficulties mediate these differences. The study employed a sample of 43 individuals scoring ≥15 on the PHQ-9 and 56 controls scoring ≤4, who rated emotional valence, humour, relatability, shareability, and mood-improving potential of 32 depressive and neutral memes online; emotion dysregulation was measured using the DERS-SF. Findings revealed that depressed participants rated depressive memes as significantly more humorous, relatable, sharable, and mood-improving than controls, but no differences emerged for neutral memes. Regression analyses showed that difficulties in deploying adaptive emotion regulation strategies fully mediated group differences in meme interpretation. The study concluded that while depressive memes may serve beneficial coping functions for individuals with depression, these effects are contingent upon underlying deficits in emotion regulation.

Russo, Dhruve, and Oliveros (2023) examined the mediating roles of emotion regulation difficulties and distress tolerance in the relationship between childhood trauma and adult PTSD symptom severity. The study used a sample of 385 adults aged 18 to 48 who retrospectively reported cumulative childhood trauma, current emotion regulation difficulties, distress tolerance, and PTSD symptoms. Mediation analyses showed that both emotion regulation difficulties and low distress tolerance significantly mediated the effect of childhood trauma on PTSD, with emotion regulation difficulties accounting for a larger indirect effect. The study concluded that emotion regulation deficits and limited distress tolerance are distinct mechanisms linking early trauma to adult PTSD and highlighted them as important targets for prevention and intervention.

Amjad and Dasti (2020) examined the relationships between humour styles (affiliative, self-enhancing, aggressive, self-defeating), emotion regulation strategies, and subjective well-being in young adults. The study used a cross-sectional design with 350 university students (175 men, 175 women) aged 18 to 24 who completed self-report questionnaires measuring humour styles, emotion regulation, and well-being. Findings indicated that adaptive humour styles were positively associated with adaptive regulation and subjective well-being, while maladaptive humour styles were linked to maladaptive regulation and reduced well-being. Emotion

regulation strategies were found to mediate the relationship between humour styles and well-being. The study concluded that promoting adaptive humour and regulation strategies could enhance psychological satisfaction and happiness among young adults.

Donovan (2022) examined how peer support contributes to post-traumatic growth among first responders by analysing ten empirical studies published between 2006 and 2022. The sample included firefighters, paramedics, and emergency medical staff from various countries. Using thematic analysis, the review identified five key mechanisms through which peer support aids trauma recovery. These included opportunities to process traumatic events, manage organizational stressors, engage in adaptive coping, increase well-being through meaningful participation, and create relational safety that encourages open communication. The study concluded that both formal and informal peer support are essential for promoting psychological recovery and resilience, especially when integrated with organizational support and healthy coping practices.

Powling, Brown, Tekin, & Billings (2024) examined the lived experiences of partners of individuals with trauma-related PTSD through qualitative interviews. They conducted semi-structured interviews with six partners of PTSD-diagnosed individuals receiving or awaiting treatment at a UK trauma service, and analysed data using Interpretative Phenomenological Analysis (IPA). Participants described their experiences as an ongoing journey of loss and gain, encompassing challenges in making sense of the trauma, shifts in identity and relationship roles, and navigating available personal and professional support. Each journey involved both struggle and adaptation, with evolving relational dynamics and use of external resources. The authors concluded that partners' experiences are complex and multifaceted, and that mental health services should include greater support and information for partners of individuals with PTSD.

Matrozou (2024) investigated how depression moderates the perception of different humour types - self-enhancing, self-defeating, aggressive, and a newer category called suicidal humour and its effect on sharing intention. The study surveyed 104 adults (age mean ≈ 30.6) via an online experimental design in which participants rated 16 comic strips representing the five humour types and reported their likelihood to share each. Results revealed that self-enhancing humour was perceived most positively, while suicidal and self-defeating humour were perceived negatively. Depression level significantly moderated these effects: individuals with higher depression scores rated suicidal and self-defeating humour as more perceptible and were less likely to share suicidal humour. The study concluded that humour perception and sharing behaviour vary by humour type and are influenced by depression, suggesting that suicidal humour could serve as a potential psychological indicator of underlying depressive states.

Krauss (2023) examined the role of different humour styles as resilience factors in coping with stressful life situations. The study utilized a sample of young adults aged 18 to 35 and employed a quantitative, correlational research design using self-report measures including the Humour Styles Questionnaire and a Perceived Stress Scale. Results indicated that adaptive humour styles, particularly affiliative and self-enhancing humour, were significantly associated with lower perceived stress and better emotional coping, while maladaptive styles such as aggressive and self-defeating humour were linked to higher stress levels. The study concluded that humour

styles play a critical role in emotional regulation and can serve as protective factors in resilience processes, highlighting their potential utility in therapeutic and preventive interventions aimed at stress reduction and mental well-being.

Avidan, Harel, Israelashvili, Kaplan, Pietrzak, and Johnson (2021) examined the relationships between humour, morale, unit cohesion, deployment stressors, and PTSD symptoms in a large-scale military sample. The cross-sectional study surveyed 20,901 active duty military personnel who completed self-report measures assessing deployment-related stress, perceived unit cohesion, morale, use of humour as a coping mechanism, and PTSD symptom severity. Results demonstrated that higher levels of humour usage, stronger unit cohesion, and elevated morale were each significantly associated with lower PTSD symptoms, even when deployment stressors were high. The study concluded that humour functions as a resilience factor within military contexts, but its protective effect operates alongside morale and unit cohesion rather than in isolation.

Gundugurti, Koneru, Nebhineni, & Mishra (2024) examined the relationship between emotional intelligence and psychological resilience and their role in developing adaptive coping mechanisms. The study was reported in Indian Journal of Psychiatry and involved a narrative synthesis of data from adult samples, with an emphasis on emotional intelligence's association with resilience across clinical and non-clinical settings. Findings suggested that higher emotional intelligence reliably correlates with stronger psychological resilience. The authors concluded that emotional intelligence contributes significantly to resilience development and should be leveraged in interventions aimed at enhancing coping and mental well-being.

Brites, Brandão, Hipólito, Ros, & Nunes (2023) examined the mediating role of resilience in the relationship between emotion regulation and mental health outcomes including stress, anxiety, depression, and PTSD symptoms. The cross-sectional study surveyed university students during the COVID-19 pandemic and used questionnaires assessing emotion regulation strategies, dimensions of resilience, and mental health symptoms. Findings showed that adaptive emotion regulation was linked to better mental health outcomes and resilient self-perceptions mediated all such associations. Additional resilience facets such as planned future, family cohesion, and social resources also mediated specific links between emotion regulation and depression, stress, anxiety, and PTSD symptoms. The study concluded that resilience acts as a key protective factor that helps translate emotion regulation skills into improved psychological functioning during stressful periods.

Di Giacomo et al. (2023) examined the relationship between emotion regulation abilities and virtue-based psychosocial adaptation using the virtue-based psychosocial adaptation model (V-PAM). The study surveyed 595 adults and clustered them based on scores from the Difficulties in Emotion Regulation Scale, then assessed how five virtues - practical wisdom, integrity, emotional transcendence, committed action, and courage - discriminated between high and low emotion regulation functioning. Results indicated that practical wisdom was the strongest differentiator, followed by integrity, emotional transcendence, committed action, and courage, and discriminant analysis correctly classified 71 percent of participants. The study concluded that virtues provide a robust framework for understanding individual differences in

emotion regulation and should be considered in future research on resilience and psychosocial adaptation.

Semko (2024) examined the effects of Duchenne laughter and mirth through a novel humour-based digital positive psychology intervention titled Make it Funny! on psychological distress in daily life. The study involved 159 participants (median age 39, 47.8% female, 68.2% White) who completed the digital intervention or a placebo task each day for seven days. Measures assessed frequency of Duchenne laughter, stressful events, anxiety symptoms, and overall psychological distress. Findings showed that on days with higher laughter frequency, the link between stress and distress weakened, and within-person analyses revealed a slight buffering effect of mirth on distress, approaching statistical significance. The intervention was rated acceptable and feasible, but neither humour styles nor the method of humour creation were linked to mental health outcomes. The study concluded that the impact of laughter and mirth on psychological distress is context-dependent and time-variant, and that Make it Funny! holds promise as a low-burden digital tool for mental hygiene.

Singh and Singh (2021) examined the associations among resilience, emotion regulation, peer relationships, humour, and body esteem in Indian college students. The study surveyed 1,000 students using Hindi versions of validated questionnaires assessing these constructs. Results showed that male participants scored significantly higher on resilience, peer relationships, humour, and body esteem, and all correlations among the variables were positive and statistically significant. The study concluded that individuals who perceive themselves as resilient also tend to report stronger emotion regulation abilities, better peer relationships, higher humour engagement, and greater body esteem.

Couette, Mouchabac, Bourla, Nuss, & Ferreri (2020) conducted a systematic review examining social cognition impairments in individuals with PTSD. They screened studies published up to February 2018 that assessed emotion recognition, empathy, mentalizing, and theory of mind in PTSD patients. The review found consistent deficits across both affective and cognitive components of social cognition, including difficulties interpreting others' emotions, predicting thoughts and beliefs, and diminished empathic responses which correlated with aggression or functional impairment. The authors concluded that social cognition disturbances are integral to PTSD symptomatology and recommended systematic inclusion of social cognition assessment in clinical evaluation and treatment planning.

Mercer, Morgan, & Lotto (2024) explored how paramedics perceive and use dark humour as a coping strategy in their profession. They conducted semi-structured interviews with ten experienced paramedics - all with at least two years of service - and analysed data using thematic analysis. The study identified four main themes: how the public, students, and colleagues perceive dark humour; its use in building resilience and perseverance; the negative mental health effects of prolonged reliance on dark humour; and its role in fostering camaraderie among ambulance staff. Findings showed that while dark humour supported emotional resilience and team bonding, chronic dependence on it risked emotional detachment and burnout. The authors concluded that dark humour can be a useful short-term resilience tool in pre-hospital work, but should be monitored and balanced with healthy emotional processing and organizational support.

Byrne and Kangas (2022) examined emotion regulation strategies of humour and acceptance in response to a trauma-analogue video among students. Two hundred twenty-eight university participants were randomly assigned to one of three conditions - humour, acceptance, or control - and viewed a distressing film clip online. Emotional responses and memory for trauma-related cues were measured immediately afterward. Findings showed no significant differences in emotional distress reduction across groups; however, participants with high trait acceptance recalled more trauma cues in both the humour and acceptance conditions, whereas those with low trait acceptance recalled fewer regardless of condition. The study concluded that the effectiveness of humour or acceptance in coping with trauma depends more on individuals' baseline traits than on short-term strategy instruction.

METHODOLOGY

Participants

A total of 140 early adults aged 19–40 years were initially recruited through offline channels and online platforms, including academic networks, social media groups, and psychology forums. After data screening, 9 participants were excluded due to unreliable or incomplete responses, leaving a final sample of 131 participants. The participants represented a balanced mix of gender, socio-economic status, and educational backgrounds, consistent with the early adult developmental stage described by Erikson. All participants were fluent in English and did not have current psychiatric diagnoses. Participation was voluntary, and participants were informed that they could withdraw at any stage without penalty.

Design

A quantitative, cross-sectional correlational research design was used to explore the natural relationships between humour appreciation, emotional regulation, and post-traumatic stress symptoms in early adults.

Tools

Humour Appreciation

The Humour Styles Questionnaire (HSQ) by Martin et al. (2003) was used to evaluate four humour dimensions: affiliative, self-enhancing, aggressive, and self-defeating. This 32-item instrument uses a 7-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree), with higher total scores indicating greater humour appreciation. Each subscale reflects a different humour approach. The HSQ has been widely validated, with internal consistency coefficients ranging from .77 to .87. In this study, the overall HSQ total score was used as a measure of general humour appreciation.

Emotional Regulation

Emotional regulation was assessed using the Emotion Regulation Questionnaire (ERQ) by Gross and John (2003). This scale includes 10 items rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) and evaluates two strategies: cognitive reappraisal and expressive suppression. A total score was computed to represent general emotional regulation capacity. The ERQ has consistently shown high reliability (α = .79–.89).

PTSD Symptoms

The PTSD Checklist for DSM-5 (PCL-5) by Weathers et al. (2013) was used to measure symptoms associated with PTSD. It is a 20-item self-report questionnaire aligned with DSM-5 criteria. Each item was rated on a 5-point Likert scale (0 = not at all, 4 = extremely). Total scores ranged from 0 to 80, with higher scores indicating greater PTSD symptom severity. The PCL-5 has demonstrated strong psychometric properties, including high internal consistency and test–retest reliability. In this study, Cronbach's alpha exceeded .90, confirming excellent reliability. This 20-item self-report tool asks respondents to rate how much they have been bothered by specific symptoms over the past month on a 5-point scale (0 = not at all to 4 = extremely). A total score above 33 may suggest probable PTSD. The tool has strong psychometric properties ($\alpha > .90$).

Procedure

Participants completed the survey using offline forms or online Google Forms. After reading and providing informed consent, participants completed demographic questions followed by the PCL-5, HSQ, and ERQ in randomized order. The questionnaire took approximately 15–20 minutes to complete. Participants who requested feedback on their scores were provided results after the study. Ethical guidelines were strictly followed, and contact details for mental health support services were shared with all participants.

Hypothesis

The study hypothesized that humour appreciation and emotional regulation would significantly relate to PTSD symptoms in early adults. Specifically, it aimed to examine the relationship between humour appreciation and emotional regulation on symptoms of PTSD among early adults.

Data Analysis

Data were analysed using SPSS Version 27. Initial screening included checks for missing data, outliers, and normality. Descriptive statistics were calculated for all study variables. Pearson correlations assessed bivariate relationships among humour appreciation, emotional regulation, and PTSD symptoms. Multiple regression analysis was performed with PTSD symptoms as the dependent variable and humour appreciation and emotional regulation as independent variables. Regression assumptions, including linearity, normality, homoscedasticity, independence, and multicollinearity, were evaluated through diagnostic plots and tolerance/VIF statistics. Significance was set at $p < .05$.

Ethical Considerations

The study followed APA ethical standards. Informed consent was obtained from all participants, and data confidentiality was maintained. Participants could withdraw at any time without penalty. Ethical approval was secured from the institutional ethics committee prior to data collection.

RESULTS AND INTERPRETATION

The present study investigated the relationship between humour appreciation, emotional regulation, and PTSD symptoms among early adults. Data were collected from 140 participants, of which 9 were excluded due to unreliable responses, resulting in a final sample of 131 participants. Descriptive statistics showed that participant's PTSD scores, measured via the PCL-5, ranged from 10 to 72, with a mean of 37.60 (SD = 17.14), indicating moderate levels of trauma-related symptoms in this sample. Humour appreciation, assessed using the HSQ total score, had a mean of 131.21 (SD = 23.90), suggesting a generally high tendency to perceive and enjoy humour among participants. Emotional regulation scores measured through the ERQ averaged 46.19 (SD = 8.97), reflecting moderate use of adaptive regulation strategies.

Correlation analysis revealed a significant positive relationship between humour appreciation and PTSD symptoms ($r = .276$, $p = .001$). This finding indicates that participants with higher humour appreciation scores also reported elevated PTSD symptom levels. In contrast, emotional regulation showed a non-significant negative relationship with PTSD symptoms ($r = –.022$, $p = .799$), suggesting that within this sample, general emotion regulation abilities were not directly associated with trauma-related distress. Moreover, humour appreciation and emotional regulation were uncorrelated ($r = .041$, $p = .641$), indicating that the two constructs functioned independently.

Multiple regression analysis was conducted to determine the predictive capacity of humour appreciation and emotional regulation on PTSD symptomatology. The regression model accounted for a modest but significant proportion of variance in PTSD scores ($R^2 = .077$, $F(2, 128) = 5.36$, $p = .006$). Humour appreciation emerged as a significant predictor ($\beta = .277$, $t = 3.260$, $p = .001$), suggesting that higher humour appreciation is associated with increased PTSD symptoms. Emotional regulation, however, was not a significant predictor ($\beta = –.034$, $t = –.399$, $p = .691$), indicating negligible influence on PTSD severity in the current sample. Collinearity diagnostics revealed tolerance values close to 1 and VIF values near 1, confirming that multicollinearity was not a concern.

Diagnostic plots, including histograms, P-P plots, and scatterplots of residuals, indicated that assumptions of linearity, normality, and homoscedasticity were met, supporting the appropriateness of the regression model. Residual statistics further confirmed that there were no extreme outliers or influential cases affecting the results.

The finding that humour appreciation positively predicted PTSD symptoms contrasts with the traditional view of humour as universally adaptive. While humour has often been conceptualized as a protective mechanism against stress (Kuiper et al., 2004; Samson & Gross, 2012), the current results suggest a more nuanced relationship. Previous literature differentiates between adaptive and maladaptive humour, such as affiliative or self-enhancing versus self-defeating and aggressive humour (Martin et al., 2003; Amjad & Dasti, 2020). It is possible that individuals with higher humour appreciation in this sample may have engaged more frequently in maladaptive humour styles as a coping strategy, which could correlate with heightened PTSD symptoms. This aligns with findings by Akram et al. (2020), who reported that humour may amplify distress in individuals with underlying emotion regulation deficits or depressive

tendencies. Similarly, Matrozou (2024) noted that self-defeating and negative humour may reflect or reinforce psychological distress rather than alleviate it.

The non-significant role of emotional regulation in predicting PTSD symptoms is notable, given prior research demonstrating the importance of adaptive regulation in trauma resilience (Tull et al., 2007; Russo, Dhruve, & Oliveros, 2023). Several explanations may account for this. First, the ERQ captures broad strategies (cognitive reappraisal and expressive suppression), which may not fully reflect trauma-specific regulation processes, such as emotional processing of intrusive memories or avoidance behaviours. Second, emotional regulation may exert indirect effects on PTSD through mediators like resilience, distress tolerance, or social support (Brites et al., 2023; Donovan, 2022). Third, cultural factors could influence emotion regulation processes; in collectivist contexts such as India, suppression or reappraisal strategies may operate differently than in Western samples, potentially reducing observable associations with PTSD.

The independence of humour appreciation and emotional regulation supports the notion that these constructs represent separate pathways of coping. While humour may engage cognitive-affective processes in a socially mediated or distraction-oriented manner, emotional regulation involves active modulation of affective responses to stress. This distinction is important for understanding why humour appreciation could associate with higher PTSD symptoms independently of regulation capacity. It highlights that certain types of humour may serve as temporary emotional relief without addressing the underlying trauma, consistent with Byrne and Kangas (2022) and Singh & Singh (2021), who emphasized the context-dependent nature of humour and regulation strategies.

Overall, these results suggest a complex and context-dependent relationship among humour, regulation, and PTSD. While humour is often promoted as adaptive, its role in trauma-exposed populations may vary depending on the humour type, individual traits, and developmental stage. For early adults navigating formative life transitions, humour may serve dual functions: facilitating social engagement while simultaneously masking or avoiding distress. Emotional regulation, although theoretically protective, may require more specific assessment tools or targeted strategies to reveal its impact on trauma outcomes.

DISCUSSION AND CONCLUSION

The present study aimed to examine the relationship between humour appreciation, emotional regulation, and PTSD symptoms among early adults in a non-clinical Indian sample. The results reveal a nuanced and somewhat counterintuitive pattern: humour appreciation significantly predicted higher PTSD symptoms, while emotional regulation did not show a direct relationship with trauma symptomatology. Furthermore, humour appreciation and emotional regulation were found to function independently, with no significant correlation between them. These findings offer important theoretical, empirical, and clinical insights into the complex dynamics of coping and adaptation during early adulthood.

The positive association between humour appreciation and PTSD symptoms contradicts conventional views that humour inherently acts as a protective or resilience-enhancing mechanism. Classical perspectives in positive psychology and trauma research often

conceptualize humour as a form of cognitive reappraisal that can buffer against stress, facilitate emotional distance, and promote psychological well-being (Fredrickson, 2001; Samson & Gross, 2012). However, the current findings indicate that higher humour appreciation, at least in this sample, is associated with greater endorsement of trauma-related symptoms. One plausible interpretation is that humour in these participants may be used as a maladaptive coping mechanism. Existing research differentiates between adaptive (affiliative, self-enhancing) and maladaptive (aggressive, self-defeating) humour styles, suggesting that the latter can reinforce avoidance, emotional suppression, and interpersonal difficulties (Martin et al., 2003; Amjad & Dasti, 2020). The results resonate with findings by Akram et al. (2020) and Matrozou (2024), which indicate that maladaptive humour may amplify distress rather than alleviate it.

From a developmental perspective, early adulthood (ages 19–40) is a stage characterized by identity consolidation, increased autonomy, and the formation of intimate relationships (Erikson, 1950). This period involves high psychological vulnerability due to complex life transitions, role demands, and exposure to potential stressors. Humour, particularly if self-defeating or socially avoidant, may function as a temporary emotional buffer without addressing underlying trauma. For instance, an individual with high humour appreciation may use humour to deflect from intrusive memories or emotional discomfort, resulting in a paradoxical association with higher PTSD symptoms. This aligns with findings by Byrne and Kangas (2022) and Mercer, Morgan, & Lotto (2024), emphasizing that humour's effectiveness as a coping strategy depends on both context and individual baseline traits.

The non-significant role of emotional regulation in predicting PTSD symptoms is equally noteworthy. Emotion regulation has been widely documented as a critical protective factor against trauma-related psychopathology, with deficits linked to heightened symptom severity, hyperarousal, and emotional dysregulation (Tull et al., 2007; Russo, Dhruve, & Oliveros, 2023). Several explanations may account for the null effect in this study. First, the ERQ measures general cognitive reappraisal and expressive suppression strategies, which may not capture trauma-specific regulation capacities. Trauma-focused regulation often involves nuanced skills such as distress tolerance, processing of intrusive memories, and modulation of hyperarousal, which may not be reflected in broad trait measures (Brites et al., 2023; Couette et al., 2020). Second, regulation may operate indirectly: it could mediate or moderate the relationship between humour appreciation and PTSD, or interact with social support and resilience, rather than exert a direct effect. Finally, cultural factors may influence regulation patterns. In collectivist societies like India, social norms may encourage suppression or adaptive expression of emotions within relational contexts, potentially weakening the observable link between trait emotion regulation scores and self-reported PTSD symptoms.

The lack of correlation between humour appreciation and emotional regulation highlights that these constructs operate independently. While both may contribute to coping, they represent distinct psychological processes. Humour can function as a social or cognitive-affective mechanism that distracts or reframes stress, whereas emotion regulation involves deliberate modulation of affective experience and expression. This separation suggests that interventions

targeting PTSD in early adults should consider these pathways separately: promoting adaptive regulation strategies may not automatically influence humour use, and vice versa.

These findings carry several theoretical implications. First, they challenge simplistic assumptions that humour universally serves as a protective factor against trauma. Rather, humour's role appears context-dependent, varying with type, individual traits, and developmental stage. Second, they emphasize the need for culturally sensitive conceptualizations of coping and regulation. In Indian contexts, humour is often relational, socially mediated, and intertwined with norms around emotional expression, which may influence how it relates to trauma outcomes (Nezlek & Derks, 2001). Third, the results highlight the importance of examining early adulthood as a distinct developmental window in trauma research. Cognitive-emotional capacities are still consolidating during this stage, and coping strategies such as humour or regulation may manifest differently than in adolescents or older adults.

From a clinical perspective, these results suggest caution in assuming that humour is inherently beneficial for trauma-exposed individuals. Clinicians should assess not just the frequency but the type and function of humour used by clients. Interventions could focus on enhancing adaptive humour (affiliative, self-enhancing) while reducing maladaptive forms that may inadvertently reinforce distress. Similarly, emotion regulation training should consider trauma-specific strategies, such as exposure-based emotion processing, distress tolerance, and adaptive cognitive reappraisal, rather than relying solely on trait-level assessments. Psychoeducation regarding the context-dependent nature of humour and regulation may also be valuable, helping early adults understand when coping strategies may support versus undermine recovery.

In terms of practical applications, the findings could inform preventive mental health programs, particularly in academic and workplace settings. Early adults experiencing moderate trauma-related symptoms may benefit from workshops that distinguish adaptive and maladaptive humour, provide training in trauma-focused emotion regulation, and foster awareness of personal coping tendencies. Additionally, online and offline interventions incorporating culturally relevant humour-based approaches could be explored, emphasizing constructive humour engagement as a resilience-building tool.

In conclusion, the study provides important insights into the complex interplay among humour appreciation, emotional regulation, and PTSD symptoms in early adults. Contrary to traditional assumptions, higher humour appreciation was associated with greater PTSD symptom severity, while emotional regulation did not show a direct predictive effect. These findings underscore the context-dependent and developmental nature of coping strategies, highlighting the importance of distinguishing adaptive versus maladaptive humour and tailoring interventions accordingly. The independence of humour and regulation suggests that multi-faceted approaches are required for effective trauma support in early adults. Future research should examine mediating and moderating factors such as humour style, resilience, social support, and cultural context, using longitudinal designs to clarify causal pathways. Clinically, practitioners should adopt nuanced, culturally informed strategies that integrate positive psychological resources with trauma-specific regulation techniques to promote adaptive functioning and resilience.

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APPENDICES

Emotion Regulation Questionnaire (ERQ)
Gross & John

The Emotion Regulation Questionnaire is designed to assess individual differences in the habitual use of two emotion regulation strategies: cognitive reappraisal and expressive suppression.

Citation

Gross, J.J., & John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. Journal of Personality and Social Psychology, 85, 348-362.

Instructions and Items

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

1----------2----------3----------4----------5----------6----------7
strongly disagree — **neutral** — **strongly agree**

1. ____ When I want to feel more *positive* emotion (such as joy or amusement), I *change what I'm thinking about*.
2. ____ I keep my emotions to myself.
3. ____ When I want to feel less *negative* emotion (such as sadness or anger), I *change what I'm thinking about*.
4. ____ When I am feeling *positive* emotions, I am careful not to express them.
5. ____ When I'm faced with a stressful situation, I make myself *think about it* in a way that helps me stay calm.
6. ____ I control my emotions by *not expressing them*.
7. ____ When I want to feel more *positive* emotion, I *change the way I'm thinking* about the situation.
8. ____ I control my emotions by *changing the way I think* about the situation I'm in.
9. ____ When I am feeling *negative* emotions, I make sure not to express them.
10. ____ When I want to feel less *negative* emotion, I *change the way I'm thinking* about the situation.

Note
Do not change item order, as items 1 and 3 at the beginning of the questionnaire define the terms "positive emotion" and "negative emotion".

Scoring (no reversals)
Reappraisal Items: 1, 3, 5, 7, 8, 10; Suppression Items: 2, 4, 6, 9.

Humor Styles Questionnaire

Rod A. Martin, Ph.D.

INSTRUCTIONS: People experience and express humor in many different ways. Below is a list of statements describing different ways in which humor might be experienced. Please read each statement carefully, and indicate the degree to which you agree or disagree with it. Please respond as honestly and objectively as you can. Answer by clicking one of the option buttons beside each item, using the following scale:

Totally Disagree 1	Moderately Disagree 2	Slightly Disagree 3	Neither Agree nor Disagree 4	Slightly Agree 5	Moderately Agree 6	Totally Agree 7

1.	I usually don't laugh or joke around much with other people.	○1	○2	○3	○4	○5	○6	○7
2.	If I am feeling depressed, I can usually cheer myself up with humor.	○1	○2	○3	○4	○5	○6	○7
3.	If someone makes a mistake, I will often tease them about it.	○1	○2	○3	○4	○5	○6	○7
4.	I let people laugh at me or make fun at my expense more than I should.	○1	○2	○3	○4	○5	○6	○7
5.	I don't have to work very hard at making other people laugh -- I seem to be a naturally humorous person.	○1	○2	○3	○4	○5	○6	○7
6.	Even when I'm by myself, I'm often amused by the absurdities of life.	○1	○2	○3	○4	○5	○6	○7
7.	People are never offended or hurt by my sense of humor.	○1	○2	○3	○4	○5	○6	○7
8.	I will often get carried away in putting myself down if it makes my family or friends laugh.	○1	○2	○3	○4	○5	○6	○7
9.	I rarely make other people laugh by telling funny stories about myself.	○1	○2	○3	○4	○5	○6	○7
10.	If I am feeling upset or unhappy I usually try to think of something funny about the situation to make myself feel better.	○1	○2	○3	○4	○5	○6	○7
11.	When telling jokes or saying funny things, I am usually not very concerned about how other people are taking it.	○1	○2	○3	○4	○5	○6	○7
12.	I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders, or faults.	○1	○2	○3	○4	○5	○6	○7
13.	I laugh and joke a lot with my friends.	○1	○2	○3	○4	○5	○6	○7
14.	My humorous outlook on life keeps me from getting overly upset or depressed about things.	○1	○2	○3	○4	○5	○6	○7
15.	I do not like it when people use humor as a way of criticizing or putting someone down.	○1	○2	○3	○4	○5	○6	○7
16.	I don't often say funny things to put myself down.	○1	○2	○3	○4	○5	○6	○7
17.	I usually don't like to tell jokes or amuse people.	○1	○2	○3	○4	○5	○6	○7
18.	If I'm by myself and I'm feeling unhappy, I make an effort to think of something funny to cheer myself up.	○1	○2	○3	○4	○5	○6	○7
19.	Sometimes I think of something that is so funny that I can't stop myself from saying it, even if it is not appropriate for the situation.	○1	○2	○3	○4	○5	○6	○7
20.	I often go overboard in putting myself down when I am making jokes or trying to be funny.	○1	○2	○3	○4	○5	○6	○7
21.	I enjoy making people laugh.	○1	○2	○3	○4	○5	○6	○7
22.	If I am feeling sad or upset, I usually lose my sense of humor.	○1	○2	○3	○4	○5	○6	○7
23.	I never participate in laughing at others even if all my friends are doing it.	○1	○2	○3	○4	○5	○6	○7
24.	When I am with friends or family, I often seem to be the one that other people make fun of or joke about.	○1	○2	○3	○4	○5	○6	○7
25.	I don't often joke around with my friends.	○1	○2	○3	○4	○5	○6	○7
26.	It is my experience that thinking about some amusing aspect of a situation is often a very effective way of coping with problems.	○1	○2	○3	○4	○5	○6	○7
27.	If I don't like someone, I often use humor or teasing to put them down.	○1	○2	○3	○4	○5	○6	○7
28.	If I am having problems or feeling unhappy, I often cover it up by joking around, so that even my closest friends don't know how I really feel.	○1	○2	○3	○4	○5	○6	○7
29.	I usually can't think of witty things to say when I'm with other people.	○1	○2	○3	○4	○5	○6	○7
30.	I don't need to be with other people to feel amused -- I can usually find things to laugh about even when I'm by myself.	○1	○2	○3	○4	○5	○6	○7
31.	Even if something is really funny to me, I will not laugh or joke about it if someone will be offended.	○1	○2	○3	○4	○5	○6	○7
32.	Letting others laugh at me is my way of keeping my friends and family in good spirits.	○1	○2	○3	○4	○5	○6	○7

PCL-5

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Keeping your worst event in mind, please read each problem carefully and then select one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

Your worst event: _____

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
2. Repeated, disturbing dreams of the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0 ○	1 ○	2 ○	3 ○	4 ○
4. Feeling very upset when something reminded you of the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0 ○	1 ○	2 ○	3 ○	4 ○
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0 ○	1 ○	2 ○	3 ○	4 ○
8. Trouble remembering important parts of the stressful experience?	0 ○	1 ○	2 ○	3 ○	4 ○
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0 ○	1 ○	2 ○	3 ○	4 ○
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0 ○	1 ○	2 ○	3 ○	4 ○
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0 ○	1 ○	2 ○	3 ○	4 ○
12. Loss of interest in activities that you used to enjoy?	0 ○	1 ○	2 ○	3 ○	4 ○
13. Feeling distant or cut off from other people?	0 ○	1 ○	2 ○	3 ○	4 ○
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0 ○	1 ○	2 ○	3 ○	4 ○
15. Irritable behavior, angry outbursts, or acting aggressively?	0 ○	1 ○	2 ○	3 ○	4 ○
16. Taking too many risks or doing things that could cause you harm?	0 ○	1 ○	2 ○	3 ○	4 ○
17. Being "superalert" or watchful or on guard?	0 ○	1 ○	2 ○	3 ○	4 ○
18. Feeling jumpy or easily startled?	0 ○	1 ○	2 ○	3 ○	4 ○
19. Having difficulty concentrating?	0 ○	1 ○	2 ○	3 ○	4 ○
20. Trouble falling or staying asleep?	0 ○	1 ○	2 ○	3 ○	4 ○

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TABLES AND FIGURES

TABLE 1

Descriptive Statistics of Humour Appreciation, Emotional Regulation and PTSD symptoms

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
HSQ total	131	80	305	131.21	23.902
ERQ total	131	16	68	46.19	8.974
PCL total	131	1	79	37.60	17.140
Valid N (listwise)	131				

TABLE 2

Correlation Matrix of Humour Appreciation, Emotional Regulation and PTSD symptoms

Correlations

		HSQ total	ERQ total	PCL total
HSQ total	Pearson Correlation	1	.041	.276**
	Sig. (2-tailed)		.641	.001
	N	131	131	131
ERQ total	Pearson Correlation	.041	1	-.022
	Sig. (2-tailed)	.641		.799
	N	131	131	131
PCL total	Pearson Correlation	.276**	-.022	1
	Sig. (2-tailed)	.001	.799	
	N	131	131	131

**. Correlation is significant at the 0.01 level (2-tailed).

TABLE 3

Coefficients of Humour Appreciation and Emotional Regulation as predictors of PTSD

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	14.515	10.831		1.340	.183		
	HSQ total	.199	.061	.277	3.260	.001	.998	1.002
	ERQ total	-.065	.162	-.034	-.399	.691	.998	1.002

a. Dependent Variable: PCL total

TABLE 4

Model Summary of Regression predicting PTSD symptoms

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.278[a]	.077	.063	16.594	.077	5.350	2	128	.006

a. Predictors: (Constant), ERQ total, HSQ total

FIGURE 1

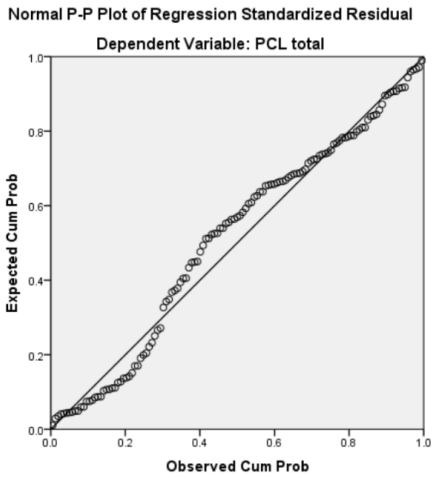

FIGURE 2

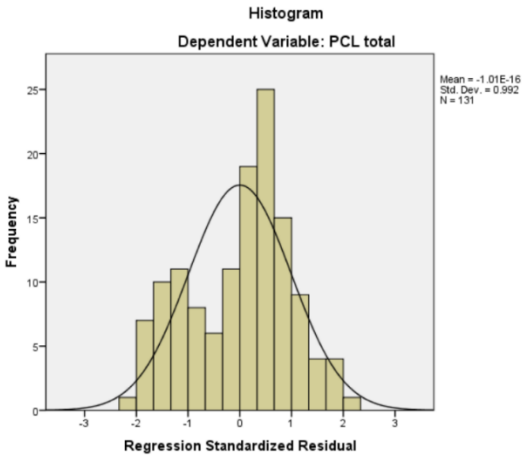

FIGURE 3