

The Relationship Between PTSD and Physical Disability among Adults

Junyan Wang^{1,a,*†}, Yunfei Wang^{2,b,†}, and Yifei Yang^{3,c,†}

¹Wenzhou-Kean University, No. 88 University Road, Li'ao Street, Wenzhou City, China

²Department of Psychology, University of York, York, England, YO10 5DD, United Kingdom

³China World Academy, No.8 Yi'jia Road, Changshu City, China

a. wanjunya@kean.edu, b. yw4341@york.ac.uk, c. yangyifei@cwacs.cn

*corresponding author

[†]These authors contributed equally.

Abstract: From the data collected by the World Health Organization, the population affected by Post Traumatic Stress Disorder is measured at 12 million in America, especially after the outburst of COVID-19. A further outbreak of post-traumatic stress-related syndrome is achieving a large leap in the infected population. Hence, more and more studies about such disorders are being put into more and more attention in the field of abnormal Psychology. The revaluation of certain disorders had become a significant focus. This paper focused on the impact of post-traumatic stress disorder after traumatic events such as sexual harassment and in the post-COVID-19 period. It highlights the need to develop inclusive formulas beyond post-traumatic stress disorder to understand the psychological difficulties experienced by affected populations. It also explores the relationship between human cognition and physical dysfunction, including immune system disorders, structural changes in the brain, and memory trade-offs associated with post-traumatic stress disorder. The social aspects of PTSD are also discussed, highlighting its impact on individuals in different social contexts. Finally, popular interventions such as prolonged exposure, cognitive processing therapy, and trauma-centered cognitive behavioral therapy are mentioned. The limitations of current PTSD diagnoses are acknowledged. The limitation of the research is also apparent. The understanding of to what extent factors like cultural background and culture dimensions, under different macro environments, the influence is being less discussed and less easy to determine as well.

Keywords: PTSD, disability, society

1. Introduction

During the COVID-19 pandemic in 2020 across the continent, a severe outbreak of Post-Traumatic Stress Syndrome (PTSS) displayed in multiple countries, resulting from exposure to various diseases. Inspired by the post-COVID phenomena, this paper is intended to look at how traumatic experiences affect human physical dysfunctions.

The common belief that excessive stress and negative emotions affect human health has been a permanent argument from the 20th century until now. American psychologist Rubino proposed that cognitive changes could affect human physiology [1]. The study conducted by Rubino was being majorly conducted among the Rheumatoid arthritis population, they experienced a sequence of

processes including verbal disclosure and emotional processing of their previous stress experiences, further resulting in an immediate negative emotion by improved psychological functioning [1]. The researchers concluded two groups: the stressful or traumatic event group and the trivial groups, where both groups expressed negative emotions through talking for four constructive periods [2]. The disclosure immediately increased negative emotions and physical appearance (joint pain and headache). However, after a constant release of stress after the periods, the participants' physical condition improved as less physical pain was reported due to fewer negative emotions affecting them. Through this experiment, it is plausible to believe that emotions do correlate with human physiology [2].

Recent research has shown a high prevalence of associative dysfunctions under post-trauma events such as sexual harassment [3]. The findings of Neigh suggested that comparing the categorization of PTSD, the formulation is more suitable for concluding the difficulties experienced by the population group [3]. The actual application of the treatment is being concluded. The rate increases even more in female situations; according to the data collected by WHO, there are 1.2 million cases, and around 70% of the population suffers from severe post-traumatic disorders and develops physical disabilities such as cardio overflow and excessive blood pressure [2].

The discussion and exploration of the effect of human cognition on physical appearances is essential for further discussion because it is proper to believe that understanding the damage after trauma experience is essential in making further predictions and protecting the affected population. The major content of the paper will focus on how human cognition affects physical dysfunctions, which will be discussed from a social and biological perspective. The topic of the paper will further cover the clinical understanding of PTSD by its functional mechanism and cause, the types of influences of PTSD under different social lenses, and further understanding of its effect on human physiology. The entire discussion will focus on both the social and biological perspectives of analyzing PTSD cases, in further discussing the macro trend of how a cognitive process is linked with physical appearances. To ensure the coverage of the discussion is sufficient, both individual cases and macro phenomena will be included. The paper will also include related topics, such as treatments and therapies that are correlated to PTSD, to further understand the etiology of the disorder itself as an alternative argument toward the biological and cognitive understandings.

2. The Meaning and Diagnosis of PTSD

2.1. The Meaning of PTSD

Post-traumatic stress disorder or PTSD is a complication of disorders that are being recognized to develop in someone who experiences scary, dangerous events, it can be a clinically diagnosed condition that can be both complex and long-lasting [4]. It typically affects individuals who have personally encountered or observed a traumatic incident, which may include the presence of an imminent danger to life, acts of violence, or severe harm.

2.2. The Diagnosis of PTSD

At present, the assessment and identification of PTSD rely on structured interviews and questionnaires conducted by a clinician, which obey criteria issued by the American Psychiatric Association, which is called the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [4]. No conclusive diagnostic examinations have been devised for PTSD. To conduct the diagnosis, the patient's healthcare provider will likely: Conduct a radical examination of the physical body to eliminate any potential medical conditions that might be leading to the symptoms. Administer a psychological assessment involving an in-depth discussion about the signs and symptoms they are experiencing, as well as the specific event(s) that precipitated them.

3. The Appearance of PTSD (Disability)

Patients with PTSD experience changes in memory, physiologic functioning, and health status that produce different physiologic responses than those who are non-PTSD patients, and this article is dedicated to examining whether these changes are related to PTSD.

3.1. Dysfunction in the Immune System

According to the research conducted by Neigh which provides sufficient knowledge on the mechanism and the bio-factors influencing PTSD symptoms and the dysfunction in human physiology, people living with PTSD often show dysregulated systems that regulate the stress response [5]. In addition to this, endocrine disorders, as well as immune disorders caused by PTSD, can further result in other complications, which amount to complications due to PTSD. What's more, according to Neigh, PTSD is associated with low levels of cortisol in the morning and high levels of norepinephrine (NE) in the evening, it is proposed that excessive activation of the hypothalamic-pituitary-adrenal (HPA) axis in response to trauma and a sustained increase in corticotrophin-releasing factor (CRF) will combine to down-regulate CRF receptors in the pituitary, leading to a downstream reduction in glucocorticoids (GC) signaling, which leads to the immune system dysfunctions [5]. The evidence will provide a strong persuasion in discussing the existence of the relationship between PTSD and disability.

3.2. Disability in Brain Structure

Some of the effects of PTSD are physical and behavioral in that they manifest themselves when there are changes in the brain structure usually associated with stress. A study done by Bremner highlights how stress affects the stress sensitivity circuits in the brain, which later tends to affect the physical health of an individual [6]. According to Bremner, disability is often debilitating in the chronic form of PTSD [6]. Research indicated that individuals diagnosed with PTSD exhibit reduced volumes in the hippocampus. In a study utilizing magnetic resonance imaging (MRI), it was observed that after being heavily affected daily by post-traumatic stress disorder, Vietnam veterans had a change in the volume of the hippocampus, which shrank by 8% compared to a control group as a result [7]. In the research, the control group was carefully selected to match various factors, alcohol abuse for example, and education levels [7]. In addition, compared with ordinary people, PTSD patients have major defects in the central nervous system, which makes them have continuous processing of continuous strong noise [7]. In simple terms, ordinary people will gradually adapt to noise, but PTSD patients will not Uncomfortable response to noise persists.

3.3. Disability in Memory---Memory Trade-off

A study conducted by Pietrzak discusses the link between the disabling symptoms of PTSD and the onset of chronic physical health problems, it mainly talked about some other physical diseases that arise [8]. Besides this, another research is particularly valuable for its focus on older adults, a population where the implications of disability are especially pronounced [9]. It mainly talked about how many people with PTSD have changes in their memories after experiencing trauma, but it is not clear to the researchers whether these disappearing memories are related only to the trauma experienced, from the hypothesis that was proposed - an emotionally induced memory trade-off. PTSD patients may appear to be "typical" because they are similar to the control group which when both applied neutral stimulation, only when an emotionally related object was present, but not when a neutral item was being shown, was pre-existed memory sacrificed in favor of object-associated memory. These resources examine the different and varied effects of PTSD on physiological

functions, such as memory and disabling symptoms. This provides documentary evidence of the disability perspective for the paper.

4. The Connection Between Social Groups and Reasons for an Individual's PTSD Symptoms and Malformed Beliefs

PTSD does not just have a biological and physiological explanation but also has a social aspect by which it can be explained and reasoned with [10]. There are many reasons one should look at these aspects and expand the study of trauma from the mere study of stress on the individual and their trauma. Some of these are –humans are social animals, and therefore, every interpersonal interaction affects the psychological and mental trauma conditions. Extensive literature studies how often the entire society is traumatized together rather than just an individual. Traumatic stress can occur globally, and individualized therapies for PTSD still have limited effects [11].

Psychoanalytical studies suggest that often, a trauma experienced in a social surrounding by a child can affect the individual as they grow up [12]. As early as Mitscherlich, it was suggested that it was not enough to study the person's trauma concerning the particular event that caused the trauma but to analyze it deeply to understand what other aspects could hurt the person [13]. For example, if a person has been traumatically bullied by their peers, they may never feel safe in any social group [12].

Therefore, it is clear that there are many social contexts of PTSD, which can broadly be categorized into before, during, or after the actual traumatic event [14]. According to Maercker & Horn, social effects like guilt, shame, and other kinds of reactions of the traumatized person, close relationships and interactions with the traumatized person during the process of experiencing trauma, and the culture and society after the traumatic event later on together decide how an individual may be affected by the trauma and PTSD in the future [10].

5. Interventions

Currently, the prevalent intervention methods for addressing trauma-related psychological distress are Prolonged Exposure (PE), Cognitive Processing Therapy (CPT), and trauma-focused Cognitive Behavior Therapy (CBT), as emphasized in the comprehensive study by Watkins et al. [15].

5.1. Prolonged Exposure

The premise of a therapeutic intervention called prolonged exposure is that, under the guidance of qualified practitioners and in a controlled and protected environment, systematically reintroducing individuals to the memory of traumatic events can effectively alleviate the pain and suffering related to recalling the events. Prolonged exposure therapy is a therapeutic intervention for managing post-traumatic stress disorder (PTSD). This general concept is the central guiding principle of prolonged exposure therapy based on this treatment method. This technology solves the current problems by integrating two intervention methods and adopting various strategies. In vivo, exposure strategies include systematically and gradually encouraging patients to participate in activities they have avoided due to traumatic experiences. Patients are strongly urged to participate in activities they have avoided because of the trauma they have experienced. The treatment of PTSD includes the following measures: The technology used to solve the anxiety related to traumatic experiences is a gradual process of reintegrating into a non-threatening environment. This method aims to alleviate the anxiety usually associated with traumatic experiences. The imaginative exposure method combines an additional element in which the individual participates in the cognitive process of mentally reconstructing traumatic events. The purpose of taking this action is to mitigate the impact of this distressing event. To use this method effectively, it is necessary to provide strong encouragement to the subjects to produce a detailed description of the painful experience and, at the same time,

encourage them to participate in this process actively. As described by Eftekhari et al., the primary purpose of this study is to examine the emotional and cognitive aspects of the above events, with the ultimate goal of reducing the level of fear related to them [16]. The study aims to examine these components to reduce the level of fear related to the event. It is worth noting that this particular method shows potential for helping individuals whose daily workability is hindered by symptoms related to post-traumatic stress disorder (PTSD) [16]. The study is significant because it may help individuals with post-traumatic stress disorder (PTSD). Symptoms associated with post-traumatic stress disorder (PTSD) may challenge individuals who participate in activities that often bring them happiness.

5.2. Cognitive Processing Therapy (CPT)

Following exposure to traumatic events, individuals may develop maladaptive cognitive constructs and beliefs firmly ingrained in their psychological framework. This therapeutic approach aims to eliminate these cognitive patterns and underlying beliefs. This could potentially provide a hindrance in the trajectory towards achieving rehabilitation. Cognitive processing therapy (CPT), or CPT, is a style of psychotherapy that aims to target and modify the underlying beliefs and assumptions associated with these difficulties. Individuals can develop the aptitude for critically analyzing their cognitive processes and effectively addressing the underlying components of their unconstructive beliefs. This capacity can be nurtured by professional therapists who facilitate the process, providing support and guidance throughout. This phenomenon is feasible due to individuals' capacity to develop the skill of critically assessing their cognitive processes. This paradigm enables the active assessment of the accuracy of these beliefs and subsequent reinterpretation, ultimately resulting in the modification of individuals' emotional reactions. Modifying cognitive processes represents a strategy employed in pursuing a specific objective within this therapy approach: ameliorating concomitant emotional distress [17]. One of this treatment's additional objectives is to transform concurrent experiences of emotional distress. The study conducted by Resick. et al have established a correlation between utilizing this specific approach and improving several symptoms associated with post-traumatic stress disorder (PTSD) [18].

5.3. Cognitive-behavioral Therapy (CBT)

Cognitive-behavioral Therapy (CBT) is a therapeutic approach that combines cognitive and behavioral techniques. Cognitive behavior therapy (CBT), or cognitive-behavioral therapy, is a well-recognized psychotherapeutic modality that adopts a comprehensive treatment strategy by integrating diverse theoretical frameworks. This enables cognitive behavior therapy to become a more comprehensive therapeutic option. One potential approach that can facilitate this transition is the utilization of psychoeducation to acquaint patients with salient symptoms and coping methods, thereby initiating a comprehensive behavior change. Facilitating this shift can be achieved by implementing psychoeducation. The phenomenon of change can occur through a diverse range of methodologies. As previously mentioned, the substantial framework serves as the primary foundation for the therapeutic method, encompassing elements of continual exposure. As mentioned earlier, the framework is the therapeutic technique's fundamental foundation.

Harvey et al. assert that cognitive processing holds considerable importance within the cognitive behavioral therapy (CBT) framework [19]. Consequently, this process facilitates the reconfiguration of cognitive schemas and the development of anxiety management skills, both essential to successfully treating anxiety disorders. Cognitive behavioral therapy (CBT) has gained significant attention in recent years and is extensively employed as a therapeutic approach for those diagnosed with post-traumatic stress disorder (PTSD). This is because cognitive-behavioral therapy (CBT) has

demonstrated efficacy in mitigating the symptoms associated with post-traumatic stress disorder (PTSD). The comprehensive nature of cognitive behavioral therapy (CBT) can be primarily attributed to its inclusive approach, which facilitates the integration of many therapeutic components within its framework. The comprehensive cognitive-behavioral therapy approach is primarily responsible for its holistic aspect. Individuals currently undergoing medical intervention for their illness may see more significant benefits from cognitive behavioral therapy (CBT) due to the therapy's fundamental characteristics: individuals undergoing medical intervention for a specific medical condition. As mentioned earlier, individuals not undergoing treatment for the disease exhibit a diminished probability of experiencing positive outcomes from cognitive behavioral therapy (CBT).

6. Conclusion

The topic of this article is how PTSD is correlated to physical disability among adults. The purpose of this paper is to discuss the impact of PTSD in the post-COVID phenomenon, which includes discussing and exploring the impact of human cognition on physical appearance is necessary for further discussion. Finally, it is concluded that PTSD has an impact on the physiological functions, memory ability, and brain nerves of the human body, resulting in disabilities in different aspects of the human body. Humans are social animals, and the effects of PTSD are not just personal. Every social interaction will affect the mood of PTSD patients, whether it is positive or negative, so the research on the impact of PTSD needs to involve the social level. The relationship between PTSD of teenagers and society may lie in incidents like school bullying. The environment will determine how these patients are affected by trauma and PTSD.

In addition, PTSD interventions are also included in the scope of our review. The popular intervention methods include prolonged exposure (PE), cognitive processing therapy (CPT), and so on, which are the two most commonly used treatment methods. However, the current determination of PTSD has certain limitations.

The limitation is that there is currently no conclusive diagnostic test for PTSD. Therefore, future research should focus on the approach of diagnosis for PTSD and form unified conclusions. In the post-epidemic era, society has just emerged from turmoil, and people's mental state cannot be adjusted to the depressive environment in a short period. In this case, mental illness is more likely to appear. PTSD is a kind of mental illness that occurs in people who have experienced or witnessed terrorist events.

The significance of this article is to extend the impact of PTSD from mental torture and injury to the impact on physiological functions so that people can be more intuitive and recognize the dangers of PTSD and the importance of treatment. PTSD is a serious mental illness. For many people, mental illness is not as deadly as physical illness and does not even affect daily life. Mental illness has never been ignored and left untreated. With the development of society, people's thinking gradually progresses and more and more people become more and more aware of mental illness. Many mental illnesses have entered the public, such as depression, PTSD, bipolar disorder, and so on. The significance of this article is to make people who ignore mental illnesses realize that PTSD not only damages the nerves but also affects the physiology functionally.

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