A Summary Analysis and Deconstruction of Risk Factor Research

in the PTSD Construct

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Abstract

A summary of risk factor research, centered on two meta-analyses (Brewin et. al., 2000, Ozer et. al. (2003) and a more recent literature review by Bomyea et. al. (2012) shows mixed results in establishing a consistent theory of the role of risk factors in PTSD epidemiology. A careful review of current literature suggests that risk factor analysis is in its infancy and that at this point it is unclear what role established risk factor categories will play in future PTSD research. New perspectives in trauma research including resiliency factors, increasing criticism of PTSD as an ethnocentric, pseudo-construct, and Ecological and Constructivist approaches to trauma, show that more research is needed to define the relevance of the PTSD construct and to determine the exact relationship of risk/resiliency factors to traumatic responses.
A Summary Analysis and Deconstruction of Risk Factor Research

In the PTSD Construct

PTSD can be defined as, “A pathological response to a traumatic event such as combat, natural disasters, or physical or sexual assault.” (Bomyea et. al., 2012). It has been measured in some form in approximately 7-9% of the general population in America and 7% in Europe; women have been shown to have lifetime prevalence rates as high as 10 or 12% with men around 5%.( Kessler et. al., 1995). PTSD is a diagnostic construct that is located in the western psychological framework and it assumes a basic Medical/Clinical model of pathological development for mental illness that locates problems predominately inside a person’s body (Keinzler, 2008). This approach can be described as Trauma-Focused Psychiatric Epidemiology (TFPE) (Kulkarni et. al., 2006), and has been the dominant approach of trauma researchers, but due to numerous criticisms and limitations of this approach (Bonanno & Mancini, 2012; Keinzler, 2008; Kulkarni et. al., 2006; and Summerfield, 1999) it is important to show how it has influenced the development of trauma research, specifically in the area of risk factor analysis. Other approaches such as the ecological and Constructivist approaches may provide an alternative to the TFPE model that move trauma discourse and research away from the traditional binary approach of normal vs. pathological response, toward a more inclusive approach that better accounts for the heterogeneous response to trauma events (Bonanno & Mancini, 2012; Gusman et. al., 1996; Harvey, 1996).

Identifying and collecting risk factors in an attempt to predict vulnerability to PTSD has been a common and longstanding effort of etiological studies, however the data weave a complex web that can be very easy to confuse or misinterpret. There is argument in the etiological
literature as to which factor categories are most important, with evidentiary lines dividing pre-trauma from peritraumatic and posttraumatic risk factors and along social and individual lines. There is also much disagreement about which factors are most powerful causal agents or if it is even possible to create an effective risk factor model (Brewin et. al. 2000; Kraemer et. al., 2001; Vogt, et. al., 2007). The meta-analyses by Brewin et. al. (2000) and Ozer et. al. (2003) cover a majority of etiological risk factor studies with results that lean toward peri- and post-trauma. Also, a more recent literature review by Bomyea et. al. (2012) provides a greater focus on pre-trauma factors. Together these three sources provide a broad, but, comprehensive view of current risk factor analysis in TFPE discourse.

Finally, it is difficult to discuss risk factors in relation to trauma without also including the idea of resilience. Resilience to traumatic stimulus is by far the norm in any given population, but similar to risk factors, resilience as a concept suffers from differences in definition (Agaibi & Wilson, 2005; Bonanno & Mancini, 2012; and Hoge et. al., 2007). A brief overview of literature on resiliency factors will help provide a more comprehensive understanding of risk factors and their relationship to the development of negative trauma responses.

**The Risk Factor Literature**

The meta-analyses by Brewin et. al. (2000) and Ozer, et. al. (2003) cover a majority of etiological risk factor studies with results that lean toward peri- and post-trauma. Also, a more recent literature review by Bomyea, et. al. (2012) provides a greater focus on pre-trauma factors. Together these three sources provide a broad, but, comprehensive view of current risk factor analysis in PTSD.

Brewin, et. al. (2000) identified 14 risk factors including, gender (female),
younger age, low SES, lack of education, low intelligence, race (minority status), psychiatric history, childhood abuse, other previous trauma, other adverse childhood experiences, family psychiatric history, trauma severity, lack of social support, and life stress. All 14 of these factors presented modestly significant effects, peritraumatic factors like: lack of social support, trauma severity, and life stress had the strongest weighted effect. while pre-trauma factors like: gender, age at trauma, and race predicted PTSD inconsistently depending on the population education, previous trauma, and general childhood adversity were slightly more consistent but differed more depending on which type of methods were used. Psychiatric history, reported childhood abuse, and family psychiatric history were the most consistent of the pre trauma factors across method and population. They concluded that although there were significant effects for all risk factors, the results in each case were extremely heterogeneous and therefore it would be ill advised to try and create a generalized risk factor model given the current state of the research, but that more attention should be paid to factors that are proximal to the trauma event. Also they suggested that it would be important to find out if the extreme heterogeneity in data was inherent in risk factor analysis or if it was mostly due to methodological differences. (Brewin, et. al. 2000).

Similarly, Ozer et. al (2003) on 7 risk categories that included, prior trauma, prior adjustment, family history of psychopathology, perceived life threat, perceived support, peritraumatic emotions, and peritraumatic dissociation. They found peritraumatic emotions and peritraumatic dissociation to be the strongest predictive risk categories for development of PTSD. As in Brewin et al. (2000) they found social support to be a moderately strong predictor. It is also significant to note that they completely left out demographic factors as they were not causal and thus irrelevant as predictors of PTSD. Ozer, et al.(2003) also disagreed with the
suggestion of Brewin et al. (2000) that a generalized model of predictive factors should not be attempted because of the newly found salience of the proximal factors. Although there has been some newer evidence that brings the importance of peritraumatic dissociation in to question as a causal factor. (Marx & Sloan, 2005)

Newer research by Bomyea et. al. (2012) focused on pre-traumatic vulnerabilities at both a biological and cognitive level as being some of the most important factors in risk markers for PTSD.

There is evidence suggesting that dysregulation in HPA axis function, particularly glucocorticoid sensitivity and reduced FKBP5 expression, may be a pre-trauma vulnerability factor for PTSD… General cognitive factors including intelligence and neuropsychological functioning also appear to be pre-trauma variables that are implicated in PTSD development… moreover, forms of cognitive biases (i.e., negative attributions, rumination, negative appraisals, fear of emotion, and looming cognitive style) appear to interact with trauma exposure to predict PTSD symptoms. (Bomyea, et. al. 2012)

This comprehensive review collects the newest and most important findings in pre trauma vulnerability factors and helps balance out the pre-, peri, -post debate, however there are numerous methodological problems for developing statistical strength in research into biological vulnerabilities, such as the inability to have proper baseline measures, due to ethical reasons, and the current variance in PTSD measurement and heterogeneity in response. (Bomyea et. al., 2012)

As we can see, the idea of risk factors presents a huge problem to researchers and mental health practitioners, trying to understand what makes some people more vulnerable to negative outcomes of trauma exposure. In light of this problem, it is tempting to try and simplify, and
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average out, the great heterogeneity in response by painting a few broad strokes, or stopping at the identification of possible risks. But, as Vogt, et. al point out:

The accumulation of a laundry list of risk factors does little to increase our understanding of etiological processes underlying associations with outcomes or to inform our decision making about how interventions can be optimally timed, constructed, and delivered to prevent or treat mental disorders. (2007)

Most research on risk factors work on the assumption that risk factors are causal in nature, when in fact there is no real evidence showing any more than a possible correlation. "It is likely that a number of commonly asserted risk factors do not meet criteria for risk factor status, and should more appropriately be classified as concomitants or consequences of PTSD." (Vogt et. al., 2007). Also, Kraemer et. al. point out the necessity for more rigorous criteria in determining risk factors and a more precise use of risk factor terminology (1997). Given the extreme diversity of responses to trauma exposure, it is extremely important that researchers are consistent or at least conscious of their use of terms regarding risk and PTSD. And it may be more fruitful to discontinue the idea of risk factors as univariate indicators and instead focus on "risk pathways" (Vogt, et. al., 2007). Research by Vogt et. al (2007) explains how Kraemer and her colleagues (1997, 2001) demonstrated the importance of a deeper understanding of these risk pathways by showing how risk mechanisms can blend together and overlap in at least five unique ways: "One variable may be a proxy risk factor for another variable... Variables are overlapping risk factors... variables may be independent risk factors... one variable mediates another variable... [and] one variable moderates another variable." (Vogt et. al. 2007). Until these operational problems are addressed and these pathways and mechanisms of risk are better
understood, it will be impossible for researchers and clinicians to make any meaningful or scientific conclusions about the role of risk factors in the development of PTSD.

**Problems, Limitations, and Consequences of the PTSD Construct**

As shown previously, the study of risk factors for PTSD is rife with theoretical and methodological problems as well as oversimplifications and some just plain bad science. But another thing that often gets overlooked in trauma related studies is that the basic existence of PTSD as defined and diagnosed by the DSM is not a scientific fact. Keinzler (2008) said “There exists no agreement on the public health value of the concept of PTSD and the appropriate type of mental health care.” At best, it exists as a consensual metaphor within western psychiatric discourse. There continues to be strong debate about the validity of the PTSD construct and the ability of DSM type diagnostics to accurately portray the heterogeneous nature of trauma responses across individual, cultural, and cross-cultural samples (Bonanno & Mancini, 2012; Keinzler, 2008; Kulkarni et. al., 2006; and Summerfield, 1999). Some of the criticism challenges the many assumptions of the PTSD construct including: the pathological nature of extreme trauma response, the location of problem inside of the person, that people as a whole respond similarly to traumatic events, that diagnostic criteria represents a discrete category of “abnormal” responses, and that current symptom categories accurately describe the lived experience of people suffering trauma (Bonanno & Mancini, 2012; Keinzler, 2008; Kulkarni et. al., 2006; and Summerfield, 1999). Kienzlzer points out that,

Critics state that PTSD is an example of how society and politics have helped to create rather than discover a mental illness. That is, psychological knowledge is the product of a particular culture
at a particular point in time... meaning is always related to cultural backgrounds, and, thus, PTSD
is seen to be the product not of trauma in itself but of trauma and culture acting together. (2008)

While Summerfield argues "argues that for the vast majority of survivors posttraumatic stress is
a pseudo condition, a reframing of the understandable suffering of war as a technical problem to
which short-term technical solutions like counseling are applicable." (1999). Other less extreme
criticism points out that the main problems lie in the assumption that responses to trauma are
homogenous in nature and point out the need to redefine some of the terminology, substituting
potentially traumatic event (PTE) in place of the impossibly definite traumatic event (Bonanno
& Mancini, 2012) as well as focusing more attention on the variability of trauma responses
across populations and across time.

It is important to note that current changes in diagnostic procedure, reflected in the DSM-
V, show an effort to correct some of the problems mentioned above, but the basic assumptions
about the existence of PTSD as a discrete condition have remained intact. I argue that these
assumptions can have negative consequences for people who are experiencing Trauma related
suffering and are therefore not benign theoretical distinctions. Over pathologizing can often lead
to a sense of personal defectiveness or weakness, and a pervasive sense of helplessness in the
face of "chronic" conditions. Even though the creation of PTSD as a diagnostic category was
meant to identify those in need of help, it can be used by insurance companies to deny or limit
treatment in the case of "sub-clinical" symptoms. Pathologizing normal human suffering and
coping as a disorder after only a month seems less than ideal, considering the stigmas that are
often attached with a psychiatric disorder. On the other hand it cannot be denied that some
people respond to PTE's in a more drastic and negative way than others and it is important to
understand the etiological nature and progression of these responses that can often overwhelm and incapacitate an individual.

One avenue that is open to exploration is the shift in risk factor identification towards a focus on resiliency outcomes. Harvey (1996) defines resiliency as, “the possibility of recovery in the absence of clinical care and the contribution of social, cultural and environmental influences to these outcomes.” Resiliency is often conceptualized as a spectrum of specific factors that lie on a continuum with the opposite side being risk factors. I believe this view is a mistake, and that resiliency describes an entirely different perspective. The continuum view creates a negative picture where an individual’s response to traumatic events are decided by fate, holding a scale or accountant’s ledger weighing the good and bad in a person’s life, or balancing assets with liabilities: on one side, health and wellbeing, on the other chronic pathology. Resilience is much more than positive life factors that guard against PTSD: it is better described as a natural human quality. It does include factors such as inner strength, locus of control, and positive coping mechanisms, but I prefer the description by Bonanno where resiliency happens alongside and despite overwhelming risk: more focus is placed on generative experiences in the midst of tragic events. (Bonanno & Mancini, 2012). In PTSD research it is often common to overlook long term resilience in the recovery process. Most PTSD studies rely on cross-sectional measures that show only short term effects of PTE’s and people’s natural resiliency. Natural recovery from traumatic wounds over time is very little understood. For example: it is commonly assumed that possible natural coping mechanisms such as avoidance and dissociation are pathological symptoms of covert, undiagnosed PTSD—just festering under the surface waiting to explode outward at the slightest provocation, and in some cases, delayed onset of PTSD is a possibility-- however, it is equally possible that avoidance coping may be exactly what that
person needs at that time during their natural recovery. I am not suggesting that one way is better than the other, but that ideas of risk and resilience in trauma recovery need a more holistic view that privileges the experience and power of the individual over the ethnocentric assumptions of a universal category called PTSD, and the TFPE bias.

I think that there are a few approaches that can help shift the focus of trauma studies in a more empowering and holistic direction. These are the Ecological and Constructivist approaches. These two approaches characteristically reject the assumption that trauma exposure necessarily leads to PTSD if left untreated, and that intervention by a therapist guarantees recovery (Gusman et. al., 1996; Harvey 1996). Both approaches also focus on personal resilience rather than individual deficits. The Ecological perspective rejects the focalization of pathology solely in the individual, focusing more on the community and culture as a whole. This is described better by Harvey:

Both vulnerability to victimization and individually varied response and recovery patterns are multi-determined by interactions among three sets of mutually influential factors: those describing the person/s involved and their relationship/s to one another, those describing the events experienced; and those describing the larger environment.

(Harvey, 1996).

The constructivist approach also places emphasis on cultural and community differences in responses to PTE's but is more concerned with individual meaning making.

A constructivist perspective is founded on a belief in the proactive and self-organizing features of human experience. This perspective assumes that there is a form-giving, meaning-making part to each of us, so that for every waking moment of our lives an account is produced of who we are,
what we are doing, and why we are doing it. Trauma stresses this meaning-making component to the extreme, at times leading to a rigidity and inflexible repetitiveness in the process of meaning-making.” (Gusman et. al., 1996).

Most importantly, both of these approaches place strong emphasis on the empowerment of the trauma survivor, and shift emphasis away from the dehumanizing language of pathology favored by the traditional TFPE model.

Throughout this paper I have sought to show how traditional the traditional Western medical/clinical bias often goes unnoticed and unchallenged. Emphasis is often placed on fitting people into homogenous categories which devalue individual response and communal responsibility in relation to PTSD. I have shown how focus on risk factors from the TFPE perspective faces many problems and limitations in its attempt to see the causes of PTSD development in response to PTE’s. And finally, I have shown how different ideas like resilience and empowering approaches like the Ecological and Constructivist ones may help point trauma research and discourse towards a more productive and humane end. However as a final point I would like to emphasize that, although I find it crucial to deconstruct and challenge the assumptions of the mainstream models for understanding and treatment of trauma, it would be impossible to deny the accomplishments of more traditional approaches. Despite criticism and numerous limitations, the medical/clinical models, and TFPE risk centered research have made wonderful contributions to the field of trauma studies. Moreover, these clinicians and researchers have compassionately and competently helped millions of individuals who have struggled and survived because of traumatic wounding. Their contributions cannot be ignored or denied.
References


