

Risk Factors for Combat-related PTSD: Case Studies of Filipino Active Duty Soldiers

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Military personnel have been consistently exposed to adverse potentially traumatic events (PTEs) leading to a higher risk of acquiring posttraumatic stress disorder (PTSD). Although PTSD is incurred following a traumatic event, not all will have PTSD. Hence, risk factors that make one vulnerable towards PTSD development are noteworthy for investigation. Additionally, more studies are needed to examine PTEs' role in PTSD development. This study contributes to the paucity of research on Filipino soldiers. It aimed to investigate PTE risk factors for combat-related PTSD as experienced by three Filipino active duty combat soldiers diagnosed with PTSD. Data triangulation and convergence were classified according to these PTE risk factor categories: combat-related experiences, precombat and postcombat experiences at work, and nonmilitary experiences. Recommendations are made for the prevention of the development of PTSD among active duty military personnel.

Keywords: risk factors, potentially traumatic events (PTEs), combat-related PTSD, soldiers, military personnel

Combat-related posttraumatic stress disorder (PTSD) is a condition that shows stress symptoms after trauma exposure in a warzone (Fragedakis & Toriello, 2014). Termed as “battle fatigue”, “combat fatigue syndrome”, “warzone stress”, and “shell shock” through World Wars I and II and the Korean War, PTSD was noted among soldiers who experienced a collapse of mental and physical resources after battling in war (Nolen-Hoeksema, 2014).

An exposure to a traumatic event, characterized by actual or threatened death, serious injury, or sexual violence, is criterion A (i.e., index trauma) of PTSD (American Psychiatric Association [APA], 2013). Exposed to many *potentially traumatic events* (PTEs) and adverse events more than any other occupational group (Greenberg, Langston & Gould, 2007), soldiers' professions include killing other people and protecting themselves from being killed (Castro & Hassan, 2016). In fact, since 2001, more than 2.5 million U.S. soldiers have been deployed to join Operation Iraqi Freedom/Operation Enduring Freedom (OIF/OEF), the same year when the number of soldiers who had developed PTSD following combat exposure in Afghanistan and Iraq escalated (Wang, Mandel, Levingston, & Young, 2016).

However, not all those exposed to trauma will acquire PTSD. Individual vulnerability or risk factors, other than the index trauma, should be considered (Xue et al., 2015), because they have their specific roles in PTSD development (Brewin, Andrews, & Valentine, 2000).

Although there have been efforts in the prevention and minimization of psychological injuries associated with combat, a significant number of soldiers continue to experience combat-related PTSD. Hence, it is recommended that more studies investigate on factors that would prevent PTSD development among soldiers (Riggs & Sermanian, 2012).

Xue et al. (2015) also contended that there is a need to do more research for identifying key risk factors that make soldiers become more vulnerable to incurring combat-related PTSD. A better determination and understanding of these risk factors will make clinicians develop interventions aimed toward PTSD prevention. By doing so, the possible PTSD symptoms after a soldier's combative experience in a warzone shall be avoided before it can even reach a full-blown PTSD diagnosis.

Similarly, Schnurr, Lunney, and Sengupta (2004) argued that it is not the traumatic stressor that is associated with morbidity – both etiology and maintenance – but the specific risk factors involved in each person's trauma

experience. Therefore, determining the involved risk factors is equally important.

Although studies regarding PTSD risk factors exist, most of these pertain to general risk factors for a civilian population, rather than for military personnel (see Brewin et al., 2000; Ozer, Best, Lipsey, & Weiss, 2003). The studies were also quantitative, and participants were not necessarily diagnosed with PTSD (Xue et al., 2015).

With regard to PTE risk factors, there are still uncertainties in the role that PTEs play in PTSD development in post conflict populations worldwide (Steel et al., 2009). Studies that focus on PTEs are also called for, most especially where experiencing PTEs has been the known standard for the trauma-affected populations (Macdonald, Danielson, Resnick, Saunders, & Kilpatrick, 2010). Also, few studies have investigated the impact of exposure to persistent, life-threatening, war-related stress (Ben-Ezra, Palgi, Hamama-Raz, & Shrira, 2015); that is why studies on this field are needed. Future studies that contribute to PTSD development among professions who are highly exposed to trauma, like the military personnel, are thus encouraged (Sareen, 2014).

This study aimed to investigate on combat-related PTSD risk factors, specifically the PTEs experienced by soldiers. Through the three cases of the participant-soldiers diagnosed with combat-related PTSD, the PTEs that happened before their index trauma should enrich understanding of how participant-soldiers experienced such risk factors and how the risk factors affected them. Findings shall inform preventive interventions for soldiers so that the probability of them incurring PTSD shall be lessened, if not ceased.

Combat-Related PTSD

Posttraumatic stress disorder (PTSD) is a chronic condition that elicits prolonged distress following a traumatic event. Its four symptom clusters are the following: intrusion of trauma-related cues, avoidance of cues related to traumatic event, negative alterations in cognitions and mood, and alterations in arousal and reactivity (APA, 2013).

Human-made traumatic events (e.g., wars) are more likely to cause PTSD than natural disasters (Nolen-Hoeksema, 2014). Combat exposure has been associated with PTSD following multiple combat operations, even after a long time has elapsed after combat has ended (Britt, Adler,

Bliese, & Moore, 2013). Increased PTSD symptoms are reported among combat soldiers who had elevated rates of combat exposure and multiple and longer deployments to Vietnam, the Persian Gulf, Iraq, and Afghanistan (Xue et al., 2016).

Posttraumatic stress disorder is considered one of the most common diagnoses in the military population (Xenakis, 2014). Many soldiers had PTSD diagnoses, of which rates doubled by 10-fold increase after they had experienced predeployment stressors. Around 18,305 U.S. soldiers attested that they had experienced having chronic PTSD within three to 12 months of active combat operations in Iraq or even decades after war (Nolen-Hoeksema, 2014). In the Philippines, Ilagan (2010) found out in her assessment of combat stress load of the 10th Infantry Division (10ID) that around one out of every four soldiers had high levels of combat-related stress. Ilagan posited that 10ID, the most engaged division of the Philippine Army, is a high-stress environment. The highest means of stress were also registered by the two battalions (66IB and 28IB), where attacks and ambushes happen and remain to be higher than elsewhere in the country.

Following extreme stress, soldiers may have common reactions: having intrusive thoughts, nightmares, trauma-related triggers, faster heart rate, heightened muscle tension, feeling “jacked up” following sudden noises, losing focus, being on guard, feeling abnormally irritable, having insomnia, avoiding recollections and conversations of war experiences, having fewer positive feelings, having difficulty trusting others, not enjoying usual hobbies, and having survivor guilt (Whealin, Decarvalho, & Vega, 2008). These reactions, usually experienced by soldiers after engaging in combat theaters, are considered normal reactions to an abnormal event. It is only when their symptoms meet the full diagnostic criteria for PTSD (see APA, 2013), including symptom duration for more than one month, that they meet full-blown PTSD diagnosis.

It is indeed life-altering for one to have PTSD, as it is also associated to having other mental illnesses, occupational problems, interpersonal and familial conflicts, and non psychiatric medical conditions (Svetlicky, Solomon, Benbenishty, Levi, & Lubin, 2010). Nevertheless, PTSD is a treatable condition. In fact, the Department of Defense (DoD) and Veterans Affairs (VA) (2010) recommended evidence-based first-line psychotherapies for PTSD treatment. These psychotherapies, rather than medicines, are persistently endorsed in all clinical practice guidelines and in DoD and VA practice settings (Steenkamp, Litz, Hoge, & Marmar, 2015).

However, because these psychotherapies have limitations and PTSD treatment among military personnel is complex and challenging (Steenkamp et al., 2015), the development of novel psychotherapies for military-related PTSD is needed. A related study (Fajarito & De Guzman, submitted for publication) of which this current study is a part, addressed this concern by developing and implementing a novel PTSD treatment (i.e., psychotherapy) for the same participants in the current study. Apparently, the participants fully recovered from their PTSD. They also have current optimum occupational and social functioning.

Risk Factors for PTSD

Risk factors for developing PTSD include having psychiatric disorder before the trauma, or a family history of mental disorder(s). Heredity influences in acquiring PTSD show that twin studies demonstrate a moderate heritability in trauma exposure, whereas non assaultive trauma exposure does not pose a risk. Hence, genetic and environmental influences suggest how PTSD can be inherited and how it is comorbid with other disorders (Bandelow et al., 2012).

Environmental factors (e.g., dysfunctional family, sexual and physical abuse) are factors that also heighten risk of developing PTSD. The lack of social support (Bandelow et al., 2012), peritraumatic dissociation, trauma severity, prior adjustment difficulties, and prior trauma exposure (Rademaker, van Zuiden, Vermetten, & Geuze, 2011) also increase vulnerability to incurring PTSD.

Meanwhile, lower intelligence raises the risk of PTSD development. Disruption of neuro transmitter systems influences resilience to trauma stress. Dysfunctional hypothalamic–pituitary–adrenal axis is also a risk factor. Brain abnormalities have also been identified in individuals with PTSD (Bandelow et al., 2012).

Other general risk factors for psychopathology are traumatic stress and traumatic memories. Retraumatization occurs with sensitization and kindling. And the risk of PTSD becomes chronic in its course while the individual is still being exposed to a number of traumatic experiences (Shapiro, 2012).

Compared with civilians, soldiers face higher risks of acquiring PTSD. Westwood (2010) argued that, besides actively fighting in combat, soldiers

see various stressors in war. Thus, more than the risk of being wounded in war, the risk of having PTSD is higher.

Although efforts were made in studying combat-related PTSD, the escalation of soldiers incurring PTSD remains a problem. According to Sareen (2014), although an understanding about PTSD has occurred in the last 30 years, there are still various questions about PTSD development risk factors. Risk factor literature exists, but most participants were civilians, risk factors were generally laid, and quantitative approaches were used. Military personnel continuously exposed to PTEs are at a high risk of having PTSD, although not all of them will have PTSD. This study investigated the specific PTEs that were likely to make soldiers less resilient. Hence, this study focused on PTE risk factors for combat-related PTSD as experienced by soldiers. Also presented are the socio demographic profiles of the soldiers in relation to the risk factor literature. By qualitatively investigating soldiers' PTEs, an enriched and holistic understanding of their experiences can inform preventive interventions, so that the likelihood of incurring PTSD shall be lessened, if not ceased. Further, there is a dearth of research done with Filipino soldiers. According to Ilagan, the Armed Forces of the Philippines (AFP) and Filipino soldiers seldom merit mainstream academic interest even though it is very salient that soldiers continue to fight for the life of the nation, including battling in wars in Mindanao. This study is part of a bigger study (Fajarito & De Guzman, submitted for publication). Along with two other related case studies (Fajarito & De Guzman, in press a; Fajarito & De Guzman, in press b), this study informed the development and implementation of a novel and tailor-made psychotherapy for combat-related PTSD (Fajarito & De Guzman, submitted for publication). This is also the first study to investigate the risk factors for combat-related PTSD in cases of Filipino active duty soldiers diagnosed with the said illness.

METHOD

Study Design

This is a case study executed within the boundaries of one social system (the case), or within the boundaries of few social systems (the cases), such as people (Swanborn, 2010). A case study enables exploration of a phenomenon within its context through multiple sources of data that allow data triangulation, so that the issue being explored will not be understood

through one lens alone, but through different lenses that reveal an understanding of the phenomenon's multiple facets (Baxter & Jack, 2008). A detailed investigation of processes, then, can lead to processes that can be general or unique to a context (Yin, 2003).

Participants

Participants included three Filipino male active duty soldiers ranging in age from 28 to 45 diagnosed with PTSD. Two were confined at the psychiatry ward of the Armed Forces of the Philippines Medical Center (AFPMC) and one at the heroes ward of AFPMC. Participants were required to be aged 18 or over, to have sufficient proficiency in English and Filipino to complete psychological tests and interviews, to have multiple PTEs prior to index trauma, and to have combat-related PTSD diagnosis. They were the only ones who met the inclusion criteria at the time of data gathering. Exclusion criteria were: having comorbid disorders, brain injury, and psychosis that will disallow participation in interviews or psychological tests.

Procedures

The study was approved by the Ethics Review Committee of AFPMC. Participants, their significant others, attending nurses, and the resident psychiatrist provided their written informed consent to participate in the study. Data gathering started with an interview schedule, followed by the psychological tests and clinician-administered interviews. Each interview lasted from 1 to 1.5 hours and ensued whenever the client felt comfortable to do so. They were recorded on a digital audio recorder, transcribed verbatim, and translated into English.

Measures

To allow data triangulation, several measures were used in investigating specific phenomena. To validate and investigate the combat-related PTSD diagnoses of the participants, the following measures were utilized: interviews with participants and their significant others, attending nurses, and psychiatrist; Clinician-Administered PTSD Scale (CAPS-5); Trauma Symptom Inventory (TSI); Harvard Trauma Questionnaire (HTQ); and archival records.

To investigate the risk factors for combat-related PTSD, the following were used: interviews with participants and their significant others, attending nurses, and psychiatrist; Life Events Checklist (LEC-5); HTQ; and archival records. Each data collection instrument is detailed below.

Combat-related PTSD diagnosis, PTE risk factors for combat-related PTSD, socio demographic profile, and military background were gathered through a semi-structured interview schedule developed by the authors. The interview included questions on personal information, PTEs experienced from childhood to adulthood, and trauma symptoms. To validate and have an intensive understanding of their quantitative endorsements, questions were also asked regarding their answers on psychological tests presented below. The same interview questions for the participants were likewise given to their significant others, nurses, and psychiatrist to have other lenses of understanding on the phenomenon being investigated.

Clinician-Administered PTSD Scale (CAPS-5). *Combat-Related PTSD* diagnosis was measured using CAPS-5 (CAPS; Blake et al., 1990; Blake et al., 1995). A gold standard for PTSD assessment, CAPS-5 is a standardized clinician-administered interview. Internal consistency for the intensity of PTSD symptoms was demonstrated from a sample of 25 veterans (as ranged from .73 to .85). Interrater reliability ranged from .92 to .99 for frequency and intensity and .91 for severity. Perfect diagnostic agreement was found within the pairs (Blake et.al., 1995).

Life Events Checklist (LEC-5). Risk factors for PTEs were investigated using LEC-5. Developed by the National Center for PTSD concurrently with CAPS, LEC-5 is appropriate for military contexts and has good reliability. Test–retest reliability is reasonably stable, including item and total scale, over approximately seven days. Mean kappa for all items was .61, and retest correlation was $r = .82, p < .001$. The LEC-5 converges with an established measure of PTE exposure and strong convergence with measures of psychopathology related with trauma exposure (Gray, Litz, Hsu, & Lombardo, 2004).

Trauma Symptom Inventory (TSI). Posttraumatic stress disorder was measured using TSI (TSI; Briere, 1995). A self-report scale and a global measure of trauma sequelae, it can measure acute and chronic posttraumatic symptomatology. It has very good to excellent internal consistency for the individual scales (as ranging from .74 to .90). Similar reliability was shown in a university sample, standardization sample, and a Navy recruit sample of

3569. It has sensitivity between 92–96% and specificity of 91%. It has the ability to detect PTSD, because of the TSI scales' diagnostic utility of 86% (Briere, 1995).

Harvard Trauma Questionnaire (HTQ). Risk factors for PTEs or specifically directly/indirectly experienced traumatic events, index trauma, and PTSD were investigated using HTQ (HTQ; Mollica et al., 1992). As a self-report scale, HTQ measures traumatic and torture events and PTSD symptoms among individuals affected by torture, trauma, and war-related violence on a cross-cultural approach. It has good reliability of .96 for the symptom portion and a test–retest correlation of .92, with a 1–122 k interval between tests. It has good criterion validity with PTSD group ($n = 65$) showing higher symptom scores than the non-PTSD group ($n = 26$). Its sensitivity is .78 and its specificity is .65. The overall hit rate is .75 (Mollica et al., 1992).

Combat-related PTSD diagnosis, PTEs, and socio demographic profiles were investigated using archival records of the participants to allow the collection of data that may not have been shared by the participants and other interviewees for the study.

Data Analysis

Data—both qualitative and quantitative—from all multiple sources were integrated, instead of dealing with them individually, to reach a holistic understanding of the phenomenon under study. Such convergence leads to strong findings, because various data from multiple sources are interwoven to boost a more valuable understanding of the case (Baxter & Jack, 2008).

Category construction started with the first interview transcripts of participants, significant others of participants, nurses, and the psychiatrist, followed by the first answered psychological tests. Open and axial or analytical coding was done. Initially-made categories were revised thereafter. The process of refining and revising, as suggested by Merriam (2009), continued through the data analysis until coming up with the findings.

To sustain data credibility or “truth value”, four measures, as suggested by Baxter and Jack (2008), were accomplished: (a) Data triangulation was done to strengthen the study's internal validity. Triangulating data makes robust findings by convening lines of evidences from multiple sources (Yin, 2012); (b) Data from multiple sources were converged into the analysis to

strengthen data quality; (c) The researcher established rapport with the participants; and (d) Member checking, wherein participants were asked if the findings of the study hold true for them were done.

RESULTS

Findings show the participants' socio demographic profiles and military background in Table 1. Findings also validate that the participants really have combat-related PTSD, through the quantitative measures of CAPS-5, TSI, and HTQ (see Table 2); qualitative inquiries from interviews with participants and their significant others, attending nurses, and psychiatrist; CAPS-5; and archival records. Pseudonyms were used to protect the

Table 1. Sociodemographic Profiles and Military Background of Participants

	Jose	Manuel	Enrico
Age	28	29	45
Place of birth	Mindanao	Luzon	Mindanao
Religion	Roman Catholic	Roman Catholic	Palen (indigenous group)
Civil status	Married	Single	Married
Socioeconomic status	Low	Low	Low
Educational attainment	College level	College level	High school graduate
Rank	Private First Class	Private Class	Corporal
Branch of service	Phillippine Army	Philippine Army	Philippine Army
Years of service	8	8	14
Number of war encounter	4	10	18

Table 2. Participants' Clinically Scores in PTSD Assessments.

	Jose	Manuel	Enrico
CAPS-5			
Criterion A = combat-related	Yes	Yes	Yes
B S ev	17	19	18
#B S x	5	5	5
C S ev	8	5	6
#C S x	2	2	2
D S ev	24	12	16
#D S x	6	3	5
E S ev	19	13	13
#E S x	6	4	4
Total S ev	68	49	53
Tottal S x	19	14	16
Duration of disturbance	>1 month	>1 month	>1 month
G S ev	12	9	10
#G Sx	3	3	3
TSI			
Anxious arousal	72	74	80
Depression		82	
Anger/irritability		75	
Intrusive experiences	73	84	73
Defensive avoidance	71	70	
Diassociation		78	
Sexual concerns		72	
Dysfunctional sexual behavior		68	
Impaired self-reference	66	79	
Tension reduction behavior		72	
HTQ	3	3.47	2.53

Note. B = Criterion B; C = Criterion C; D = Criterion D; E = Criterion E; G = subjective distress, impairment in social functioning, and impairment in occupational functioning; Sev = Severity; Sx = Symptoms.

participants' identities. The PTE risk factors were also unfolded from the qualitative inquiries from interviews with participants and their significant others, attending nurses, and psychiatrist; LEC-5; HTQ; and archival records. The categories of PTE risk factors are presented below.

The PTE risk factors for combat-related PTSD were categorized into three: combat-related experiences, precombat and postcombat experiences at work, and nonmilitary experiences. They were all prior exposures to trauma before the soldiers' index traumas occurred. Each PTE risk factor is marked by either actual or threatened death to oneself or to others, physical injury, sexual violence, or a threat against physical integrity. It also resulted in the participant-soldiers' extreme distress. Each category of risk factors is detailed (Table 1) and some sample transcripts from the participant-soldiers are shown to enrich descriptions of the PTE risk factor categories.

Combat-related experiences. Combat-related experiences are characterized by soldiers' prior exposure to war as combatants and actual or threatened death towards themselves and their comrades, excluding their combat-related index traumas. These experiences brought them considerable distress and led them to have low morale. It included encounters with the Abu Sayyaf Group (ASG) terrorists or the New People's Army (NPA) rebels.

Jose highlighted an experience that posed a near-death encounter with the ASG. He described, "There was a big and loud explosion. It blasted before me...I thought I would die."

Usually, soldiers engage in firefights from advantageous positions. But when enemies are able to advance to close range, or when improvised explosive devices get near the soldiers, it becomes threatening as this could compromise the soldiers' tactical advantage. He expressed, "I saw my troops being captured by the NPA...I saw my troops being brutally killed by the ASG...beheading my troops...I got frightened...I thought they would behead me, too."

Manuel had a similar experience of having thought that his life would end when he was injured in 2011 because of an ambush encounter in a landmine-filled area, where the explosion left him wounded. He said, "It was my first time to be a battle casualty...I thought I would die from the explosion."

Like Jose, Manuel witnessed his comrades being killed. He recounted, "During our encounter with the ASG, I saw how my comrade beside me was killed. Large bullets fell on him, crushing his face...leaving him dead on the spot...I was shocked. At another encounter, my troops were captured by the ASG. They were killed by the NPA."

Enrico also relayed his comrades' deaths, which he closely witnessed. He stated, "I saw the death of our commander...I was shocked...I saw how his body was crushed by the mortar fired by ASG."

Enrico expressed his dismay when he shared, "I witnessed six Scout Rangers being beheaded by the ASG."

Enrico also had repeated exposure to aversive details of traumatic event(s) as he was among those who carried dead bodies of his troops. He narrated, "My troops and I always carry dead bodies of our troops from the warzone to the chopper. Sometimes, dead bodies are not complete anymore...they no longer had heads, arms, or legs...we can no longer identify them...their faces have been crushed...sometimes there were too many, like 20 KIA (killed in action)."

He said, "When there is a chance during war, we carry dead bodies of our troops to a safe place...otherwise, the ASG will behead their dead bodies."

Precombat or postcombat experiences at work. These include prior exposure to trauma at any given time during their duty at the barracks or during operations before actual combat. These experiences involve the following: a personal attack to one's integrity by a comrade or an officer from their unit, conflict with some comrades, and potential death during operations.

Jose recounted how he was hurt by the humiliation inflicted on him by his officer. He narrated, "During our unit's formation, our officer shouted unbecoming words against me...he called my name out loud and asked if I was sure that my mother is a teacher...he said he couldn't fathom the values my mother taught me with the kind of attitude he believed I had...he also asked if I was sure that I'm the father of my child...I was so embarrassed...I went home immediately...then, my officer declared that I had 'absence without leave (AWOL)', even it was not yet 24 hours...my salary was cut off...I didn't expect it...my family had to endure six months of financial strain."

Jose was so saddened. Not only was his morale lowered when he was embarrassed in front of his comrades but also his salary was cut off. He felt useless as he could not financially support his family. He said, “It was one of my lowest points...I felt I could not rely on my unit, and I could not provide for my family...”

Jose also shared that he was not in good terms with some of his comrades. He described, “I feel some of my comrades cannot be trusted, as they are doing things against our brotherhood.”

Meanwhile, Manuel narrated that during a 2011 operation, he almost drowned in the river. He said, “The river’s current was too strong...I almost drowned...I got frightened.”

Similarly, Enrico relayed his difficult experiences during operations at the mountains. He thought he would die. He mentioned, “I almost drowned in the river...at another time, our boat toppled down. The worst experience I had when I was part of a special working group—for one year, it was like torture...suffering...I experienced excessive hunger, thirst, exhaustion...all of it...I thought I would go crazy. At another experience, I almost got killed by the NPA when they discovered that I am a member of the AFP intelligence unit...I ran for my life in the mountains...I thought I would die.”

Nonmilitary experiences. These are marked by the soldiers’ prior exposure to trauma at any point in their lives from childhood to adulthood, excluding military-related experiences. These experiences include sexual violence, threatened death, unnatural death of a family member, family disruptions, vehicular accidents, and natural disasters leading to the destruction of home and financial constraints. The next paragraphs detail the nonmilitary struggles of the participants.

Jose conveyed his dismay when he said that he had prior interpersonal victimization. He mentioned, “I was sexually harassed in high school by a quack doctor, who asked me to remove my underclothing...he touched my private part...I was shocked...I felt I was violated.”

Jose also recounted his experience of being physically attacked when he was an adolescent. He said, “I was assaulted with a knife during our argument...his anger escalated...he threatened to kill me.”

Jose also had a vehicular accident. Pointing at the scars on his legs, he mentioned, “These are my scars from the injuries I sustained from a

motorcycle accident...my wife no longer wanted me to ride a motorcycle for fear I might die.”

Besides experiencing sexual harassment, a physical attack, and a motor vehicle accident, Jose also shared his frustrations regarding family disruption and financial strains. He recounted, “My parents separated...I wanted them to be back together. It was so saddening that even after so many efforts it still never happened...I also remember that we had financial problems that my mother had to transfer me to another school.”

Manuel also had the same feeling when it comes to his family, but it was about his father’s death. He expressed, “It was untimely when my father died. I despaired over it...I had just successfully entered the military that time...I couldn’t believe it...I could no longer show to him that I was already a soldier.”

Manuel was just on his first year of service in the AFP when his father died. He felt that he could have shown to his father all his achievements had he not died that early. Manuel also recounted their family’s experience of losing their home through a natural disaster. He narrated, “The Mt. Pinatubo eruption destroyed our house in 1991...we did not have anything to eat...our farm where we used to get our food and means of living was wiped away by hot lahar...life was so difficult...we had nothing to eat...I had to stop high school...it took two years before we were able to recover from the ruins and losses the disaster had brought us.”

Enrico also had his share about the death of his father. Enrico disclosed, “My father suffered from stroke for 11 years...It was difficult for me to see him suffer that way.”

Enrico’s brother also died. He blamed himself for what had happened. He revealed, “My brother died...he was murdered...I felt it was my fault...it so happened that we had different gangs when we were adolescents...My gang accidentally killed him...it was too late when I found out that he was there during that riot...I felt guilty about it.”

Enrico’s home and means of living were also destroyed, but unlike Manuel, it was the rebels who destroyed all of their properties. He recounted, “Our house...our farm...our business... they were all destroyed by the NPA...it led to financial problems.”

Enrico also shared some domestic disruptions. He expressed, “I was so young when I had a live-in partner...I was still immature...everyday, my wife and I fought...it was chaotic and stressful...my life had no direction and I was irresponsible...I used to smoke and drink...My wife used to gamble.”

DISCUSSION

The purpose of this study was to investigate on the PTE risk factors for combat-related PTSD. For purposes of descriptive explanation, the sociodemographic profile and military background of each participant were also presented.

Two active combat soldiers with PTSD were in their late twenties and the third one was in his mid-forties. All of them are male. Research on veterans attests that people who are more symptomatic with PTSD are in their younger age (Naifeh, Del Ben, Richardson, & Elhai, 2010). In contrast to this, the study of Roberts and Browne (2011) on postwar settings confirmed that increasing age determines one having PTSD. With regard to gender, it was shown that anyone can be vulnerable to PTSD regardless of gender (Naifeh et al., 2010).

Each of the two participant-soldiers finished two years of college education, and the third one finished secondary education. Roberts and Browne, in their study on post conflict settings, contended that such socioeconomic factors are known to exist among trauma-exposed populations with poor psychological health.

Participants, who are all active duty soldiers, came from the Philippine Army branch of service, and they had numerous combat encounters. In the study of Lovering, Proctor, and Heaton (2013), service members were actively involved in the biggest ground operation since the Vietnam War. These active duty soldiers encountered a significant amount of stress, including combat exposures, which weakened both of their physical and psychological performances. When compared with the other three branches of service, the biggest branch that makes up the biggest bulk of the military personnel is the Army. It was also the branch found to have the highest number of PTSD diagnoses. Shea, Reddy, Tyrka, and Sevin (2013) also argued that the level of combat exposure is associated with and significantly predicts PTSD development.

The PTE risk factor for *combat-related experiences* led to the soldiers' low morale. It had been the duty of combat soldiers to fight for the country, to be tough, and never leave a fallen comrade behind. However, they are also subject to the effects of warzone stress exposures, especially when enemies penetrate their perimeters. James, Kampen, Miller, and Engdahl (2013) examined combat experiences as posing a deleterious impact to soldiers' mental health, such as them later having PTSD. The levels of combat exposure (Shea et al., 2013), together with perceived threat during war (Ozer et al., 2003), make combat experiences become a risk factor for PTSD development.

What is prominent in these combat-related experiences is the soldiers' deep regard for their comrades. When a comrade falls, their morale goes down. For the military personnel, the strength of one member adds to the courage and morale of the military unit. The downfall of one threatens their morale, because a comrade is more than a brother to them. Murphy and Sharp (2011) posited that morale is one of the key dynamics in successfully executing combat operations. Morale is a shared sense of purpose, values, and group cohesion, characterized by a positive mindset. Interestingly, Dickstein, McLean, et al. (2010) demonstrated that, although unit cohesion lessens the risk for PTSD development for low-to-moderate warzone stress, it becomes detrimental at high levels of warzone stress exposure. At extreme levels of stress, problem-solving abilities are compromised, leading to a greater feeling of a sense of loss and survivor guilt when a comrade dies during war.

The PTE risk factor for *precombat and postcombat experiences at work* showed that soldiers get affected by the military unit climate that they have. The nation is the priority of the soldiers, and they consider their military unit their first family. Hence, if the unit does not offer any encouragement, their morale gets weakened. It can be noted that one of the participants almost left the military, because of the humiliation he had received from his officer. According to Whitesell (2012), unit cohesion is significant among military personnel, because their emotional closeness to one another acts like a cushion in times of psychological distress. It also alleviates the impact of previous life stressors. Further, social support from leaders, an element of unit cohesion, is integral in maintaining soldiers' well-being, especially when soldiers experience extreme levels of trauma. Murphy and Sharp contended that unit cohesion motivates soldiers to persevere in combat theaters. If the unit has poor cohesion and has no good leadership, there will

be an increased likelihood of anxiety among combat soldiers, less resilience in dealing with stress, and less success in executing tasks.

It can also be noted that when soldiers are repeatedly exposed to extreme stressors, without any pause and without any psychological interventions to refuel them in the battlefield, they will feel drained and burnt out and might have nervous breakdowns. Consistent with the findings about stressful experiences during military operations that are noncombat related, Lovering et al. (2013) examined the link of mental health problems and the degree that a service member is confronted with many stressors during sustained ground operations, such as extended duty hours, sleep deprivation, and heavy and physically demanding workloads. Such experiences degrade the soldiers' physical and psychological well-being.

The PTE risk factor for *nonmilitary experiences* reveals that soldiers were once civilians, and as civilians, they had prior exposures to trauma that were not processed when they entered the military. Because starting from military training, they were already trained to strip off everything that was civilian-related—attitude, experiences, among others. The warrior ethos has been imprinted on them to help them become resilient to the high exposures of traumatic stressors they will encounter in the battlefield. Additionally, because soldiers are always deployed to different far-flung places away from their families, they become worried when problems arise in their families. This pressure happens because the demand of their professions cannot allow them to leave their missions at their own time. These nonmilitary family-related concerns, when combined to war stressors, become burdensome for them. Family-related concerns were discussed by Polusny et al. (2014) as those soldiers' concerns before deployment that include worries about family disruptions. These factors were shown to predict PTSD development among soldiers. Similarly, Shea et al., (2013) demonstrated that life/family concerns during deployment are significant risk factors for PTSD, most especially if they are coupled with high intensities and frequencies of combat exposures.

It can also be noted that Manuel and Enrico experienced family losses as their loved ones died. They also lost their homes, destroyed by the Mt. Pinatubo eruption and by the NPA, respectively. Such loss led to their families' financial constraints. Jose, meanwhile, experienced frustration over her parents' separation and also experienced financial strains. Tay, Rees, Chen, Kareth, and Silove (2015) elucidated on the pathways that lead to the advancement of PTSD. These pathways are comprised of traumatic losses,

like family deaths and separations, together with ongoing worry about the family. Jose also had prior trauma of sexual harassment. Polusny et al. demonstrated that prior interpersonal victimization and sexual stressors are associated with the risk of PTSD symptoms. A history of sexual assault or sexual trauma increases the risk of developing PTSD.

It is important to note the limitations of this study. First, quantitative measures were self-report ones, which may include bias. Second, the participants were all from the Philippine Army and have combat-related PTSD diagnosis. Findings may not be generalized to other branches of military service and to other types of PTSD. Third, data gathered through qualitative inquiry may have retrospective report bias. Fourth, the risk factors investigated focused only on PTEs.

Despite limitations, the study has its strengths. First, case study design was utilized to allow data triangulation and corroboration of evidence from multiple data sources. Second, findings give rich descriptions of the phenomena. Third, trustworthiness of the data was ensured. Fourth, the PTSD diagnosis of the participants ensures that the investigated risk factors are for combat-related PTSD. Fifth, quantitative endorsements of participants in psychological tests were validated through qualitative inquiries. Sixth, participants are all from the Philippine Army, the biggest branch of service in the AFP. Findings may apply to soldiers with similar experiences and settings.

Findings of the study supplement the risk factor literature for combat-related PTSD. The qualitative approach of the study presents an enriched understanding of the PTE risk factors as experienced by soldiers and how they are affected by these PTEs. These valuable data can guide the development of preventive interventions for combat soldiers, given that the wars between soldiers and terrorists and/or rebels have been prevalent nowadays.

At various points, protection for our soldiers from having PTSD may be provided. For example, before entering the military, they may be given psychological processing of their previous PTEs. Once in the military, they may be given psychological preparation before deployments. Then, psychological debriefings may be immediately provided after every combat encounter. It is useful to note from D. Grossman (personal communication, February 9, 2017) that the term “debriefing” was first used in the military in World War I, wherein pilots were given a “mission brief” before their mission

and “debriefing” after their mission, to capture intelligence, lessons learned, among others. Nowadays, debriefing encompasses the processing of events that had happened to psychologically restore troops before the next combat mission (D. Grossman, personal communication, February 9, 2017). Importantly, after blood is shed and lives are lost in combat, there may be memory distortion, irrational guilt, among others that would hinder soldiers’ capacity to go back to combat. Debriefing helps soldiers to make sense of what had happened, reconstruct the pieces together to learn from what was done wrong and what was done right, restore morale and unit integrity, bring the troops back together again, divide the pain and multiply joy, and put closure to an event so that the emotional distress may not linger anymore (Grossman & Christensen, 2008).

Unit support and cohesion should also be maintained at all times. Psychoeducation on how to deal with the negative consequences of extreme warzone stress exposures may be given, because problem-solving abilities are compromised at these times. By doing so, a high unit cohesion may not eventually lead to survivor guilt in the loss of a close comrade.

An understanding of the warrior ethos by clinicians and soldiers’ family members should also be advocated to increase the morale of soldiers at times when they are experiencing warzone and military-related stressors. The significance of understanding combat-related PTSD expression through index trauma and military culture is further elucidated in Fajarito and De Guzman (in press, *b*). Lastly, this study contributes to the dearth of research being done with the AFP and the Filipino soldiers.

AUTHOR NOTE

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