

2015

Best Practices for Treatment of Post-Traumatic Stress Disorder

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<https://doi.org/10.15760/honors.160>

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Best Practices for Treatment of Post-Traumatic Stress Disorder

by

Zeke Ogburn

An undergraduate honors thesis submitted in partial fulfillment of the

requirements for the degree of

Bachelor of Science

in

University Honors

and

Psychology

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2015

Table of Contents

Table of Contents	1
Abstract	4
Introduction.....	4
History.....	5
Symptomology and Diagnostic Criteria.....	6
Exposure	7
Re-experiencing	7
Avoidance	8
Cognition and Mood	9
Alterations in Arousal	10
Severity and Exclusion	10
Subtypes	11
Causes of PTSD	11
Complex PTSD.....	13
Other Potential Causes	14
Living with PTSD	15
Maladaptive Coping Mechanisms.....	15
Constructive Coping Methods	16
Modern Treatment Modalities	17
Psychological Debriefing.....	17
Eye movement desensitization and reprocessing.....	18
Cognitive Behavioral Treatments	19
Pharmacotherapy.....	20
Group Therapy	22

Best Practices for Treatment of Post-traumatic Stress Disorder

Psychodynamic	23
Hypnosis	24
Conjoint Therapies.....	25
Art Therapy.....	26
The Stage Based Model	26
Inpatient Treatment.....	28
Psychosocial Rehabilitation	29
Complex PTSD.....	30
Introduction to Complex PTSD	31
Diagnostic Criteria	31
Affect Regulation.....	31
Alterations in Consciousness	32
Self-perception.....	33
Perception of Perpetrator	34
Relationships.....	35
Systems of Meaning.....	36
Summary of Complex PTSD	36
Comorbidity	36
Misdiagnosis	38
Acute Stress Disorder	38
Borderline Personality Disorder	39
Risk Factors	40
Prevention	41
Best Practices for Treatment.....	42
Sexual Trauma	43

Best Practices for Treatment of Post-traumatic Stress Disorder

Combat Trauma	44
Other Traumas	44
Best Practices for Complex PTSD	45
Working with Patients.....	46
Triggers	47
Nightmares	48
Case Study Excerpts	49
Mark	49
Maria	50
Joe	51
Jane Doe.....	52
Effective Treatment Plans.....	53
Record Keeping	53
Reinforcement.....	54
Changing Plans	54
Conclusion	54
Acknowledgements.....	56
Works Cited	57

Abstract

PTSD is a recent disorder in the scope of psychology, only formally introduced to the *Diagnostics and Statistical Manual of Mental Disorders* in the 1970s. Since then, recognition of the disorder and its sources has increased both in psychological awareness and public consciousness. PTSD can come from any severe traumatic event, and can take several forms, as well as imitate other disorders. Although many perceive it as an incurable mental illness, there are numerous evidence-based treatments available. In addition to proven cognitive, psychodynamic, and humanistic therapies, experimental methods are testing new exposure techniques and new ways of reducing patient arousal. This thesis contains a comprehensive review of the major methods, common comorbidities, misdiagnoses, and best practices for the treatment of PTSD. It is intended for the provider, but the information within can provide PTSD sufferers, friends, and family with the knowledge they need to make an informed care decision.

Introduction

Post-traumatic Stress Disorder, more commonly referred to as “PTSD”, is a psychological disorder brought on by tremendous stressors. Traditionally, PTSD is seen as a result of imminent danger which includes a risk of severe bodily harm or death. The criteria have expanded in recent years to include witnesses to trauma, close friends and relatives of someone exposed to traumatic events, or even those exposed to vicarious trauma in the line of duty (“DSM-5 Criteria for PTSD - PTSD: National Center for PTSD,” 2014). While it is currently unclear how incidence of the disorder has changed over time, the ability to diagnose the disorder is rapidly increasing. Not only that, but public understanding of the disorder is also increasing.

Other diagnoses, such as borderline personality disorder or the controversial dissociative identity disorder, may come to be fully recognized as post-traumatic stress.

PSTD is a disorder of affect, behavior, and cognition. It affects mood regulation, spurs maladaptive action, and distorts thoughts. Not only do purely psychological problems manifest, but physiological issues are correlated with PTSD, including cortisol dysregulation (Delaney, n.d.) and conversion and somatization disorders (Herman, 1997, p. 122). Because it takes so many forms and affects so many things, PTSD can be a tremendous hindrance to quality of life, or even basic function.

From a behavioral standpoint, PTSD is best understood as an avoidance behavior (M. J. Friedman, Keane, & Resick, 2007). In this framework, the core of the issue is the negatively reinforcing cycle of escape and avoidance of stimuli that recall the trauma from which the disorder originates. Descriptions of symptoms and causes shall be discussed accordingly, to demonstrate how symptoms fit into the larger picture, and to illuminate why various methods may or may not prove effective.

History

In the past, a combination of physiological and psychological phenomena have been postulated, going by names such as “soldier’s heart”, “combat fatigue”, “shell shock” and “nostalgia” (M. Friedman, 2004). Where non-combatants are concerned, the labels “hysteria”, “fright neurosis”, and even “railway spine” have applied (M. J. Friedman, Keane, & Resick, 2014). Within the International Classifications of Diseases (ICD), the term “personality change from catastrophic experience” has been used (Herman, 1997, p. 120). A pattern of symptoms was found that fit into groups which simply lacked overlap, beginning with the unexplained

similarities in prisoners of war during World War II, and concentration camp survivors. In time, recognition built that these symptoms were shared by survivors of other traumas. For example, combat veterans and sexual assault survivors shared many of these same symptoms, such as avoidance and inappropriate anger responses.

Eventually, older diagnoses were dropped in favor of a newer, more empirically proven diagnosis. In addition to the work of psychological researchers, recognition of PTSD progressed through the lobbying of many groups – holocaust survivors, veterans groups, feminist groups – and PTSD found recognition in the Diagnostic and Statistics Manual third edition (DSM-III) as a discrete disorder, rather than one of the previously hypothesized anxiety disorders (M. J. Friedman et al., 2014, p. 54). This diagnosis began to combine the two attempts at understanding into a single framework, leading into the modern framework which recognizes both the psychological and physiological changes that result from trauma.

Symptomology and Diagnostic Criteria

Those suffering from PTSD often find themselves navigating psychological minefields. Stimuli in the world may trigger flashbacks – these stimuli are often simply referred to as “triggers.” Trauma survivors may face recurring nightmares, and define many of their day to day interactions by avoidance, rather than engagement. These three categories are so inherent to PTSD, in fact, that they are the three categories the National Institute for Mental Health uses to define PTSD (“NIMH · Post-Traumatic Stress Disorder (PTSD),” n.d.).

Exposure

The first diagnostic criterion is the exposure to a traumatic event. This may be from experiencing one, witnessing one, learning of one that a loved one experienced, or repeated exposure to the details and results of traumatic events in the line of duty. The last section is particularly notable as it is the one that affects people in care professions most often, including emergency room workers, EMTs, and psychologists. Soldiers are also susceptible to this, wherein they may not be directly exposed to combat but routinely to the damage done.

Re-experiencing

This leads to the second diagnostic criterion, the re-experiencing of the trauma. Most recognized among this is the concept of a flashback – the feeling that a past trauma is currently happening. This sensation can take many forms, including visual and auditory hallucinations (Tym, Beaumont, & Lioulios, 2009). Triggers for flashbacks may include a wide array of things; veterans may report backfiring cars or open streets as triggers, sexual assault survivors may report certain phrases or scents (“Flashbacks | RAINN | Rape, Abuse and Incest National Network,” 2009).

In a cognitive-behavioral framework, this is a distorted perception often caused by a powerful stimulus. Stimuli which preceded or were paired with the events – often senses such as sight, smell, or sound – are conditioned to become warnings. PTSD contains predictive behavior as a result of powerful stimulus-response pairings, where previously neutral stimuli become threatening. This mechanic helps to explain the difficulties in finding triggers – just as the sound of a bell may cause one to salivate without being aware of the condition, previously neutral stimuli become tremendously threatening with no warning. (Ehlers & Clark, 2000) It is my

supposition that flashbacks are an extension of this effect, where the perceived threat is so strong that it overwhelms the senses as a prediction of what will happen next, driving someone into action.

Another part of the re-experiencing category is the prevalence of nightmares. Nightmares recalling trauma are very common, with reports starting at 52 percent among PTSD sufferers (“Nightmares and PTSD: Research Review - PTSD: National Center for PTSD,” 2014). Because the nature of dreams is so contested among psychologists, there is no good explanation as to the reason for this. However, there are treatments specific to treatment of nightmare symptoms that have proven effective for this. Additionally, as PTSD is alleviated, nightmares, as with other symptoms, taper off and eventually may end entirely.

Avoidance

The third cluster of PTSD symptoms is the avoidance cluster. When the term “avoidance” is used in regards to PTSD, it refers not only to active avoidance of people, places, and external stimuli, but of thoughts and emotions as well. Generally, these are classified as behavioral and emotional avoidance.

Trigger avoidance is a particularly common issue, where PTSD sufferers avoid people, places, situations, and other stimuli that recall the traumatic event. This falls under behavioral avoidance, and it often limits what someone may do in their day-to-day life. This is one of the most restricting aspects of PTSD, accordingly. It prevents people from engaging in social activities, from meeting others, or even from accomplishing seemingly simple tasks such as visiting the grocery store. The reduction of leisure options combined with the difficulties in

completing essential tasks can prove incredibly stressful and even disheartening, leaving many with PTSD feeling that their treatment prognosis is accordingly grim.

Within a cognitive behavioral framework, behavioral avoidance may be recognized as a self-perpetuating cycle. Avoidance behaviors are recognized as being difficult to change because of the self-reinforcing nature – whenever one escapes or avoids a negative reinforcer, the behavior is increased (Skinner, 1976). In the case of PTSD, the fear of recurrence and the memory of a traumatic event are negative reinforcers. When the stimulus is encountered, it may lead to flashbacks, panic, or other aversive stimuli, all of which lead to the reinforcement of the escape and avoidance behaviors.

Cognition and Mood

Fourth among the symptom clusters, negative alteration of cognition and mood are also among the hallmarks of PTSD. These symptoms can range from personal, to interpersonal, to generalized. On a personal level, someone with PTSD may experience dysphoria – a pervasive sense of unease or unhappiness. On an interpersonal level, they may have difficulty forming relationships; on a general level, they may feel that the event will inevitably be repeated (“Symptoms of PTSD - PTSD: National Center for PTSD,” n.d.). All of these are negatively reinforcing avoidance behaviors, performed in an attempt to reduce the likelihood of the event recurring. If the trauma was related to leisure activity, no longer taking part in that activity means it cannot be repeated. If it was an assault by a trusted friend, withdrawing from people will ensure it does not happen again. If the trauma was entirely random, the belief that the world itself is the problem keeps one on guard – also known as hyperarousal, a key PTSD element.

Alterations in Arousal

Alterations in arousal and reactivity are the fifth group, made of an array of symptoms that can have severe negative impacts on quality of life. Rather than emerging and subsiding, as other symptoms do, these symptoms are constant (“NIMH · Post-Traumatic Stress Disorder (PTSD),” n.d.). PTSD sufferers may report being on edge consistently, unable to relax or sleep, or may respond to situations with inappropriate aggression. These are defensive symptoms, a result of negative reinforcement in order to protect oneself from another traumatic incident. Culturally, these symptoms are common stereotypes about veterans - snapping at everyone, paranoid, jumping at loud noises, never sleeping. Additionally, DSM-5 lists self-destructive and restless behavior among the alterations in arousal, in contrast to the defensive behaviors generally seen in the symptom cluster (“DSM-5 Criteria for PTSD - PTSD: National Center for PTSD,” 2014).

Severity and Exclusion

The Diagnostic and Statistical Manual of Mental Disorders 5th edition, aka DSM-5, has eight criteria for a PTSD diagnosis (American Psychiatric Association & American Psychiatric Association, 2013). The previously discussed criteria fall under the categories of exposure, intrusive symptoms, avoidance of associated stimuli, negative alterations in cognition, and alterations in arousal and reactivity. Beyond these are three categories related to the intensity of the symptoms and the exclusion of other causes.

The sixth criterion is duration. For the purposes of diagnosis, DSM-5 requires that the symptoms last for at least one month. Functional significance, the seventh cluster, requires “clinically significant distress or impairment” in terms of function. This is qualified as both

social and occupational impairment, but is not limited to these areas. Finally, the eighth criterion is the exclusion criterion. To be diagnosed as PTSD, the symptoms must not be caused by substances or other medical conditions (American Psychiatric Association & American Psychiatric Association, 2013).

Subtypes

DSM-5 also provides for two subtypes of PTSD.

The first is PTSD with dissociative symptoms. These include depersonalization and derealization, defined as feelings of detachment from the world, or that the world is somehow unreal. These contrast to the re-experiencing criteria in that they speak to a lack of experience in the world and a dulling of sensation, while the second criterion are a repeat of it. As with the primary form of PTSD, these symptoms should be excluded from substance or other medical causes. (American Psychiatric Association & American Psychiatric Association, 2013)

The second subtype is PTSD with delayed expression, wherein it takes six or more months to reach full diagnostic criteria (American Psychiatric Association & American Psychiatric Association, 2013). This does not mean that no symptoms are present prior; rather, it means that it takes at least that time for symptoms from all criteria to be present in required minimum amounts.

Causes of PTSD

In 2008, the World Health Organization reported a 6.8% lifetime PTSD rate for the United States, defined by the DSM-IV criteria (M. J. Friedman et al., 2014, p. 108). Because of

the growing recognition of PTSD's prevalence, it becomes ever more important to recognize both causes and effects.

The defining feature of PTSD is that it comes as a response to the threat of severe harm or death. Primarily, this is recognized as being to oneself, but vicarious exposure is recognized within DSM-5. DSM-5 also provides for witnessing traumatic events as they occur, or for the knowledge of a violent or accidental trauma inflicted on a close friend or family member. The criteria also provide for repeated exposure to the details of traumatic events (American Psychiatric Association & American Psychiatric Association, 2013). While this can be anyone, the most likely scenarios involve those who are exposed to trauma in the line of duty. ER doctors, EMTs, soldiers, combat medics, police, and even psychologists are particularly vulnerable to this, as they may encounter the aftermath and detailed accounts of trauma routinely.

In the United States, the leading cause of PTSD is sexual trauma. The statistics for rape are particularly horrific, with 31% of women who experience rape developing PTSD over their lifetimes. According to CDC research, 19.3% of American women will be raped in their lifetime (Breiding et al., 2014, p. 4). Based on these numbers, at least 5.9% of American women will develop PTSD at some point in their lives. Sexual-physical abuse in childhood, meanwhile, is reported by 35-50% of women in mental health settings and 17-33% of women in the general population (van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005).

Certainly one cannot dismiss the stress of combat when studying PTSD. Current studies indicate a 12 percent prevalence of PTSD among Marine veterans of the Iraq War by strict DSM-IV definitions. Under broader definitions, the number may be as high as 20 percent. Among Vietnam veterans, lifetime prevalence was estimated at 26.9 percent for women, and 30.9 for

men. Another study performed by the RAND Corporation in 2008 cites the prevalence of PTSD at 13.8 percent (P. Schnurr & Gradus, 2013). The wide range of figures demonstrates the difficulties in ascertaining a PTSD diagnosis, yet the numbers are consistently near 15 percent, with 25 percent of Veterans Affairs patients seeking treatment for PTSD (P. Schnurr & Gradus, 2013). It is not unreasonable to presume, of course, that undiagnosed cases also come up for the VA. However, even if one assumes 25 percent as the actual figure it demonstrates a remarkable need for effective treatment modalities.

Complex PTSD

While DSM-5 provides for three forms of PTSD – standard, with dissociative symptoms, and delayed onset – arguments have been made for a fourth form, known as complex PTSD (Herman, 1997, p. 119). Much like the other two subcategories, complex PTSD is not a separate disorder, but a form of PTSD requiring special care.

Complex PTSD is proposed by Dr. Judith Herman as a response to the more intense and complicated symptomology experienced by those with repeated, long-term trauma. According to Herman, PTSD itself is insufficient in describing the vulnerabilities to related harm and the profound psychological changes those with complex PTSD undergo (Herman, 1997). In her proposition, PTSD should be considered as a spectrum disorder, and she refers to Lawrence Kolb's comparisons of PTSD to syphilis – a disease which seems to mimic countless disorders, eluding diagnosis (Herman, 1997).

Where it is recognized, complex PTSD is known for creating a particularly challenging treatment environment. In particular, the strong interpersonal difficulties it creates demand a more thorough approach. However, the VA states that complex PTSD is treatable by tested

methodologies which are already known as effective for standard PTSD, despite requiring more involved approaches (“Complex PTSD - PTSD: National Center for PTSD,” 2013).

Other Potential Causes

According to Dr. Monnica Williams, racism should be considered as a factor for PTSD as well. Beyond the risk factors of socioeconomic issues tied in with race, she postulates that both overt aggressive race-based incidents as well as constant microaggressions are enough constant, repeated trauma to produce PTSD symptoms (Williams, 2013). The stresses of racism are certainly recognized as having deleterious effects on health in America, resulting in dramatically increased heart disease rates, diabetes, and high blood pressure to name a few in the black community.

Native American communities also share in this, as well as the idea of severe intergenerational trauma, known as the “soul wound”, a lasting legacy of the genocide and cultural extermination, e.g., boarding schools, reservations, the Trial of Tears, the Long Walk, and “Kill the Indian, save the man” policies (Smith, 2007). As with the black community in the US, Native communities face many of the same health complications, as well as increased rates of violence in terms of violent racial incidents and encounters with police.

As with other expanding areas of PTSD recognition, these incidents often fail to meet DSM-5 criterion A. Intergenerational trauma has the potential to qualify, but requires a more specifically detailed recollection than the general knowledge of the past the concept often refers to. While intergenerational trauma in Native communities certainly includes current violence and acts against parents and grandparents, there are often missing generations who were victims of the most overt forms of violence.

Despite this, it would be wise to take PTSD criteria into consideration when encountering clients with a history of racial trauma, be it violent acts or microaggressions. Even if DSM-5 does not consider the latter to be sufficient criteria, they serve as powerful risk factors which may predispose someone to development of disorder.

Living with PTSD

There are both positive and negative ways of coping with trauma, and almost assuredly before any visit to therapists or any recognition of having PTSD people will come up with several strategies. These can be beneficial or maladaptive, and fall under many categories.

Maladaptive Coping Mechanisms

Several common negative coping methods fall under avoidance symptoms. PTSD sufferers, particularly victims of sexual assault or abuse, may avoid others. This becomes harmful, however, because of the importance of social support in recovery. They may also avoid reminders of their traumatic experiences. Unfortunately, a critical part of recovery is confronting traumatic memories. Without changing how one perceives the stimulus and how one reacts to it, one becomes trapped in the PTSD cycle. A third avoidance symptom is overworking – while hard work is generally commended by society, the amount of work can be maladaptive, serving as a way to avoid reminders of trauma and other people simultaneously (“Negative Coping and PTSD - PTSD: National Center for PTSD,” 2014).

Emotional dysregulation is common as a maladaptive coping method as well. Anger and even violent behavior can be used to keep people at arm’s length. Hypervigilance is also a common issue, especially in cases of violent trauma, leaving people on guard at all times to

prevent another occurrence (“Negative Coping and PTSD - PTSD: National Center for PTSD,” 2014).

Finally, substance abuse is a common comorbidity with PTSD (“Negative Coping and PTSD - PTSD: National Center for PTSD,” 2014). Addiction does not occur in a vacuum, and PTSD is a risk factor for it, and substance addiction is a risk factor for developing PTSD.

Constructive Coping Methods

Fortunately, there are as many or more beneficial coping methods for trauma as there are maladaptive.

The VA has a long list of what it considers helpful coping methods, written as suggestions for coping with PTSD. First on the list of actionable items is a simple but important recommendation – learning about trauma and PTSD. Knowledge is power, and understanding the process can help alleviate concerns about symptoms and mental illness (“Coping with Traumatic Stress Reactions - PTSD: National Center for PTSD,” 2014).

The VA also recommends talking to others for support. This should come as no surprise, being rather the opposite of interpersonal avoidance. Similarly, practicing relaxation methods and distracting oneself with positive activities are recommended by the VA.

Finally, among the general coping methods, the VA recommends talking to a doctor or counselor about PTSD, particularly if symptoms fail to lesson on their own, or if they become worse (“Coping with Traumatic Stress Reactions - PTSD: National Center for PTSD,” 2014). Of course, not all mental health professionals use the same methods, and while all patients have

their own needs, knowing and implementing best practices wherever possible is tremendously important.

Modern Treatment Modalities

Besides current studies, it is worth studying treatments for diseases that are now recognized as being post-traumatic stress disorder, as identifying effective treatments can provide inside into the current methodologies. By studying past treatments, one can learn where treatment has failed and has succeeded, building on this for modern mental health care.

Among the current methodologies, a multitude of options are available and should be examined. With regards to the modern understanding of post-traumatic stress disorder, there are ten major methodologies I have examined for their value in prevention of development of PTSD as well as treatment.

Psychological Debriefing

First among these is psychological debriefing. While pop psychology suggests that to be a common and beneficial thing for anyone experiencing trauma, the evidence is that it is a useless and potentially harmful treatment. In particular, single session debriefing was shown not only to reduce risk, but to increase risk of PTSD development a year after debriefing (Rose, Bisson, Churchill, & Wessely, 2002). Even arguments for debriefing suggest a very, very limited scope of utility, and that it must be multiple sessions to be beneficial at all. Additionally, proponents clearly state that psychological debriefing is of no use alone. While proponents argue that it can be ethically implemented due to the participants reporting feeling better at the time (Wessely & Deahl, 2003), it is this author's opinion that this argument could be made for self-

destructive behaviors as well. Certainly PTSD patients report feeling better after injecting heroin, but no responsible psychologist would recommend it.

Eye movement desensitization and reprocessing

Eye movement desensitization and reprocessing (EMDR) has been gaining attention in the public consciousness lately, and with it questions of its efficacy. EMDR operates in a manner similar to CBT programs, involving aspects of exposure therapy and challenging cognitive distortions. Where EMDR differs primarily is an addition of a physical element – typically a therapist moving their finger in front of the patient’s field of view, though other stimuli are possible (International Society for Traumatic Stress Studies, 2000). Studies on the efficacy of the method are varied in their results. Beginning with a 1999 study comparing CBT and EMDR methods, the EMDR sample group reported only 36% no longer meeting PTSD criteria at post-interview. Worse yet, only 18% retained their progress in a three month follow-up (Devilley & Spence, 1999). Conversely, the 2000 metareview in *Effective Treatments for PTSD* assigns an A rating to EMDR, with the caveat that its effect is best with a single-event civilian trauma.

More recently, we turn to The Trauma Recovery Group, who suggest that while EMDR has significant empirical evidence showing that it is an effective method, it is not as effective as cognitive behavioral methods, nor are the eye movements demonstrated to be integral to the treatment (Mendelsohn, 2011, p. 10).

In short, studies show that EMDR is effective, but consistently less so than other methods. In the 1999 study, researchers even felt they were ethically obligated to drop the EMDR trial due to the clearly higher success rate of trauma treatment protocol discussed in the next section (Devilley & Spence, 1999). At best, EMDR should be considered a potential backup method

where exposure therapy and cognitive restructuring are too intense for a patient; it provides a somewhat distracted version of both while conferring no advantages over either.

Cognitive Behavioral Treatments

Cognitive behavioral methods have significant testing, with many methods known to be highly effective.

Cognitive therapy itself is shown to be as effective as any other tested methods, and is generally recommended. Additionally, exposure therapy has proven to be effective for candidates who can handle the stresses of it, and is considered the best starting option for PTSD patients by the authors of *Effective Treatments for PTSD* (International Society for Traumatic Stress Studies, 2000), with the best effect on those with anxiety. Additionally, it is recommended as a component of cognitive therapy. Similarly, systematic desensitization works well, but is shown to be less effective than traditional exposure.

Cognitive processing therapy is also considered a highly effective treatment. Designed as a treatment for rape survivors (International Society for Traumatic Stress Studies, 2000), CPT is a 12 meeting process designed to help bring new levels of self-awareness to trauma survivors, as well as teach them ways to confront the troubling thoughts (“Cognitive Processing Therapy - PTSD: National Center for PTSD,” 2014). The VA has since endorsed CPT for a broad range of PTSD cases, finding it to be highly effective for veterans. Specifically, they report a significant reduction in mental health care needs after the twelve week program with individual therapy, and that one study shows the method can be effective in a group setting as well. Perhaps most

importantly, the VA says that CPT is effective in complex cases which include substance abuse and personality disorders as comorbidities (Chard, 2013).

Another method, trauma treatment protocol (TTP), was implemented as part of a study on the efficacy of cognitive behavioral methodology versus eye movement desensitization and reprocessing. While the study was not intended to evaluate its efficacy specifically, it found significant results, with 83% of participants no longer meeting PTSD criteria at post-treatment interview, and 58% still no longer meeting PTSD criteria according to a self-report survey three months post-treatment (Devilley & Spence, 1999).

In addition to these methodologies, therapists should also keep dialectical behavior therapy (DBT) in mind. DBT is an approach focused on treating borderline personality disorder; it has proven particularly effective with women who have substance abuse or parasuicidal behaviors with BPD (A. L. Chapman & Linehan, 2006). In a study that used DBT as a precursor treatment for those it defined as bad candidates for PTSD treatment due to other disorders present, 50 to 68 percent of participants would be considered appropriate candidates for other treatments after a year (Harned, Jackson, Comtois, & Linehan, 2010). As well as the use in mitigating comorbidities, there is a strong correlation between BPD and PTSD, as well as significant potential for misdiagnosis. BPD may even be a manifestation of PTSD (Herman, 1997); if this is so, dialectical behavior therapy is one of the most effective treatment methods available.

Pharmacotherapy

Because PTSD has a significant amount of research showing that it has a neurological component, pharmacotherapy is worth considering as part of a treatment program. PTSD's

comorbidity rate is significant, and these comorbid disorders may prove detrimental to the main efforts toward treatment of the disorder (International Society for Traumatic Stress Studies, 2000). To that end, many drugs may aid the process by reducing the detrimental effects comorbid disorders have on treatment. However, it must be noted that while some drugs are effective at reducing PTSD symptoms and comorbid disorders, pharmacotherapy alone has not proven to be as effective as psychotherapy alone (International Society for Traumatic Stress Studies, 2000).

When considering what drug classes are most appropriate, selective serotonin reuptake inhibitors (SSRIs) have been shown to be most effective for avoidance cluster symptoms. Monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants have been demonstrated as having the most effect on re-experiencing cluster symptoms. Conversely, antipsychotics have been shown as being ineffective as a general PTSD treatment and should be considered one of the last options, reserved for cases of extreme hypervigilance and aggression (International Society for Traumatic Stress Studies, 2000).

It is also worth noting that certain PTSD causes may present unique difficulties in implementing pharmacotherapy. Experience with survivors teaches that for those who experienced rape or sexual assault, particularly involving drugs or alcohol, the fear of dulling their senses or losing control may far outweigh the difficulties presented by PTSD or the effects of comorbid disorders. Because recovery of personal autonomy is one of the most significant elements of recovery in such cases, best practices dictate that any therapist or psychiatrist not push drug treatments on a patient. Rather, making the option known and providing a comprehensive list of risks and benefits is the safest choice.

Group Therapy

Studies into group therapy methods for PTSD tend to fall into two methods – trauma-centered group therapy (TCGT), and present-centered group therapy (PCGT). While cognitive processing therapy was designed as a group modality originally (Chard, 2013), its efficacy between individual and group methods is not within the scope of this section.

TCGT and PCGT both have apparently similar results within intent-to-treat analysis. Both resulted in approximately 40% of patients having a 10 point reduction at 12 months according to the Clinician-Administered PTSD Scale (CAPS) (P. P. Schnurr et al., 2003), a structured interview of 30 items rated from 0-4 (Weathers, Blake, Schnurr, Marx, & Keane, 2014). Adequate dosage metrics show some significant differences between the two methods, however, with PCGT showing 38% at least 10 points reduction after 12 months and TCGT showing 49%.

Despite the significant difference, even TCGT shows less promise as a treatment method than individual cognitive methods. That said, it also provides unique advantages. Group therapy has the ability to normalize symptoms in a way individual does not. When studying veterans groups, a consistent appreciation of being able to talk to people who truly understand what living with PTSD is like is expressed (Sloan & Shea, 2013). Groups also provide a chance for people to lead, be it as a facilitator of a group in a consistent or rotating way, empowering someone who felt a loss of ability after trauma.

While group therapy's effect is lesser than individual cognitive methods, it is an excellent complement to them. The value of camaraderie cannot be overstated, particularly due to the isolation that can come with PTSD's negative alterations of cognition and mood. Additionally,

isolation is one of the factors specified by Judith Herman as part of complex PTSD, and group therapy can provide a much needed remedy for that (Herman, 1997). Based on these assessments, group therapy is not recommended as a single treatment strategy, but as an enhancement to a larger treatment program.

Psychodynamic

Psychodynamic modes of treatment have long been in use for traumas and have been historically applied to PTSD or differential diagnoses. Indeed, the very essence of psychoanalytic psychology is the impact of trauma. However, empirical research is limited (Mendelsohn, 2011) – perhaps unsurprisingly, as Freud’s work relied extensively on a limited selection of case studies. What reports there are suggest that psychodynamic therapy’s effect is comparable to other methods. Notably, results after post-termination results appear to be higher with psychodynamic approaches, but immediate results are lower in comparison to other methods (International Society for Traumatic Stress Studies, 2000).

Where psychodynamic methods have been applied well, they are applied to a single trauma, and are not well suited to chronic PTSD, multiple traumas, or complex PTSD (Mendelsohn, 2011). Psychodynamic methods may be best considered an alternate form of exposure therapy. The process of “making the unconscious conscious” is a process of re-experiencing events which have already happened while teaching improved coping and defense mechanisms.

Psychodynamics may provide their best effect for single trauma cases where interpersonal relationships have suffered in particular, as one of the most common responses from patients who complete a program is that their ability to connect with people has improved

(International Society for Traumatic Stress Studies, 2000). Because psychodynamic therapy requires a strong client-provider relationship, this practice may generalize to friends and family. Ultimately, the best use for psychodynamic methods may be to teach patients to connect to people again, particularly in a group setting, while a cognitive-behavioral approach is used for other PTSD symptoms.

Hypnosis

Related to psychodynamic theories, hypnosis has also been studied as a possible method for PTSD treatment. Hypnotherapy is not without merit, and is one of the older trauma therapies. Research, however, is somewhat limited. A clinical study on hypnosis has been performed, ranging from its use as a treatment for shell shock all the way to DSM-III definitions of PTSD, with successful outcomes (International Society for Traumatic Stress Studies, 2000).

Hypnosis is not a panacea, certainly – while it is best recommended as a way to enhance therapeutic relationships and shorten treatment times (International Society for Traumatic Stress Studies, 2000), it does not have current evidence to show it effective as a lone treatment. Moreover, it simply cannot be applied to all patients. While research suggests that PTSD patients have higher hypnotic suggestibility rates than average, 25% of the general population rates as highly suggestible, and 50% mildly. The other 25% rates as resistant – and thus unsuited toward this method. Recent studies also fail to specify the types of trauma tested on, only that their traumas were “bereavement, acts of violence, and traffic accidents (Brom, Kleber, & Defares, 1989).” Of these, the majority were bereavement due to loss of a family member (International Society for Traumatic Stress Studies, 2000). This is particularly important when it comes to dealing with sexual assault survivors, especially those attacked by a trusted acquaintance.

Hypnotherapy requires a significant amount of trust and leaves one in a vulnerable position.

While there is certainly value in practicing trust and vulnerability, this may be far too demanding for many patients.

Finally, hypnotherapy presents risks in the creation of false memories (International Society for Traumatic Stress Studies, 2000). If indeed hypnotherapy brings the subconscious to the fore, that brings with it the tangled mess of sensory imagery that it is comprised of. Fragments of memories may be pieced together incorrectly or created inadvertently, and the “Lost in a Shopping Mall” experiment has shown the ease in which false memories may be created (Loftus & Pickrell, 1995). For these reasons, it is my suggestion that if a psychologist chooses hypnotherapy as a method, it should be with tremendous caution. Additionally, hypnotherapy should be avoided entirely if the patient is involved with or will be involved with any testimony related to the trauma. Witness testimony is notoriously unreliable and even prone to hypnotic suggestibility (Kassin, Ellsworth, & Smith, 1989), and anything which presents risks to the accuracy of memory may do harm to the patient’s case – and with it, their recovery.

Conjoint Therapies

Marital, family, and other conjoint therapies are popular approaches for a variety of issues, but cannot be recommended as primary approaches for PTSD. While evidence-based treatments exist in this modality for depression, drug abuse, and interpersonal issues, there is a remarkable lack of evidence supporting it for PTSD specifically (International Society for Traumatic Stress Studies, 2000). These methods of treatment also pose unique risks – PTSD can create tremendous stresses on relationships, be they romantic, familial, or platonic. Such therapies require a special element of certainty if they are to be completed successfully, and if

their partner or partners in this fail to uphold their end, the therapy itself will have been a waste of time. In some cases, particularly where trauma has resulted in issues with trust and reliance on others, patients may be left worse off than they were when they started the program.

Art Therapy

Creative therapies – aka art therapy – have no programs defined specifically for treatment of post-traumatic stress disorder. Effective Treatments for PTSD suggests that they may be useful as an addition to a standard therapeutic model, and does not indicate any dangers to the method beyond the standard risks of PTSD treatment (International Society for Traumatic Stress Studies, 2000). A study using Chapman Art Therapy Treatment Intervention (developed for incident-specific medical trauma) was published in 2001 using participants from 7 to 17; it found no statistically significant difference between art therapy and what it refers to as “standard therapy.” In this study, “standard therapy” lacks definition as a modality, only being referred to as psychological care offered within a hospital setting. However, it did have results in reduction of stress and anxiety (L. Chapman, Morabito, Ladakakos, Schreier, & Knudson, 2001). As such, art therapy can only be recommended as a component of therapy aimed in making the process easier on the patient, rather than a treatment of its own.

The Stage Based Model

Dr. Judith Herman and the Trauma Recovery Group propose a model of recovery emphasizing three distinct stages, based on her work with trauma survivors and historical survey (Mendelsohn, 2011, p. 11). Though these are abstractions, they rely on three key elements. The first priority is the establishment of safety. Second is what she refers to as remembrance and mourning. Finally, the patient is aided in reconnecting to everyday life (Herman, 1997). As with

any such model, it is non-linear and an attempt to categorize major elements, rather than provide a simple, specific pattern to follow.

Safety, in this case, refers to bodily autonomy and control at first. The key task is to restore a survivor's sense of power in their self-direction, and moves onto the ability to control their environment as well. The way safety is established, of course, depends on the source of trauma and the complexity. Simple single traumas may begin with medical care – complex traumas may require longer sessions and more detailed determinations about treatment and medication – if any. In addition to the body, a safe environment must be established. Without this basic need taken care of, recovery is likely to be severely impeded (Herman, 1997).

Remembrance, the second stage, is described bluntly as one where “the survivor tells the story of the trauma. She tells it completely, in depth and detail (Herman, 1997).” The act of reconstruction of the memory is vital to the stage model, and serves different purposes according to different psychological theories. For behaviorists, it provides exposure. For cognitions, it provides a chance to re-examine the trauma and confront fallacies. According to psychoanalytic approaches, it provides reconnection to the repressed, unconscious forms of trauma to allow examination. After the remembrance, exposure comes into play again. Various techniques may come into play here – regression, exposure, or retelling the story may serve here – but all play the same role in challenging fallacies attached to the trauma and weakening its hold by breaking escape and avoidance patterns. Finally, there is a phase for grieving in the second stage – be it for the pain experienced, lost people, or even lost opportunities. In this phase the power of the traumatic event is further weakened until patients are ready to enter the reconnection stage (Herman, 1997).

Best Practices for Treatment of Post-traumatic Stress Disorder

Reconnection is the final stage, where the patient begins to return to normal life. In this stage, coping mechanisms are practiced, and survivors are taught to manage in the world as they did before. Ways to handle fear are particularly important, as are methods in handling interpersonal interactions that were damaged. Many trauma survivors also use this stage to find a mission of their own, often related to the trauma (Herman, 1997). By finding a meaning in their pain, survivors are able to take power over the events in ways they had not before.

The stage model presents as much framework as it does method, but provides a particularly detailed picture of the process of recovery. While its origin is psychoanalytic in nature, it can easily be achieved through behavioral and humanistic approaches. Most importantly, it seems to be the treatment method best suited to complex PTSD, the form she and her working group proposed (Mendelsohn, 2011). Rather than being focused on single traumas or even single traumatic types, as many methods are, this method is a holistic approach, targeting the harms of trauma rather than sources. For this reason, I believe it to be particularly valuable to complex PTSD cases and cases with comorbidities such as borderline personality disorder, dissociative disorders, and somatoform disorders.

Inpatient Treatment

As a specific modality, inpatient and residential treatment appears to be lacking in conclusive evidence. Indeed, it only describes a way to control an environment rather than a way to treat a patient, though there is evidence to suggest it aids in the process (International Society for Traumatic Stress Studies, 2000). Certainly this falls in line with basic behavioral treatment principals, as applied behavior analysis prescribes controlling the environment as a basic element of any treatment program (Kelly, 2015). The VA has an array of options under this modality,

known as Evaluation and Brief PTSD Treatment Units (EBPTUs), PTSD Residential Rehabilitation Treatment Programs (PTSD RRTP), PTSD Domiciliary Programs (PTSD DOM), Specialized Inpatient PTSD Units (SIPUs), and Women’s Trauma Recovery Programs (WTRPs) (“PTSD Treatment Programs in the U.S. Department of Veterans Affairs - PTSD: National Center for PTSD,” 2014). Because of the VA’s usage, it can be safely assumed that this is at least beneficial for combat veterans.

Similarly, it is likely that a residential treatment program would benefit sexual assault survivors. Sexual assault is a crime of power, with the much of the trauma caused by humiliation, loss of agency, and fear. In treatment for rape, non-judgmental understanding, safety, and personal autonomy are key elements to recovery (Herman, 1997). Based on this, a proper residential environment could be tremendously beneficial as an element of treatment. It is my position, accordingly, that one of the potentially most effective treatment options is a specialized residential treatment center, occupied by sexual assault survivors to create an understanding community. By combining this with a strongly self-directed treatment program in a secure environment, recovery rates would be significantly above the baseline for outpatient treatments – indeed, this model may be one of the best in creating the three stage recovery model Herman proposes. Ideally, this would be functional on its own, but may need assistance in becoming generalized. Still, as a component of a program, this could be invaluable.

Psychosocial Rehabilitation

In conjunction with inpatient methods, psychosocial rehabilitation methods may be helpful in teaching patients to cope with symptoms. More importantly, they may help patients who have comorbid issues such as drug abuse, depression, or schizophrenia. However, there is a

lack of psychosocial rehabilitation programs designed for PTSD specifically (International Society for Traumatic Stress Studies, 2000). Their primary use in PTSD treatment is to relieve other issues, or provide stability in the recovery process for patients who are unlikely to be able to complete a program on their own. Common reasons for this include homelessness, domestic abuse, lack of access to treatment centers, or even lack of motivation.

Despite the utility of psychosocial rehabilitation as a complement to other programs, it cannot be recommended on its own based on available research. Psychosocial rehabilitation lacks studies that properly implement randomization or even control groups. Rather, evidence comes from naturalistic case studies and patient satisfaction surveys (International Society for Traumatic Stress Studies, 2000). While these indicate that the method is useful, the evidence for other methods is far stronger. Therefore, ethical best practices require starting with other methods, and using psychosocial rehabilitation as either an augment to another technique, or a method to be used if others fail.

Complex PTSD

These treatments are, with the possible exception of the stage based model, aimed toward the “standard” model of PTSD. Because of this, one should consider additional needs when dealing with PTSD with dissociative symptoms. These symptoms present additional challenges to treatment, particularly to exposure methods. Moreover, special challenges arise with complex PTSD, which is typically presented with other problems such as somatoform disorders, dissociative disorders (distinct from PTSD with dissociative symptoms), and borderline personality disorder. Accordingly, treatment for complex PTSD is likely best treated with a multimodal approach (Mendelsohn, 2011).

Introduction to Complex PTSD

Complex PTSD is a proposed form of PTSD that develops in response to prolonged, severe trauma. Currently, it lacks a special categorization within Diagnostic and Statistical Manual of Mental Disorders (DSM) or International Classification of Diseases (ICD); the American Psychiatric Association has designated it as “disorder of extreme stress not otherwise specified.” Dr. Judith Herman suggests that it occurs within situations of totalitarian control, such as hostages, prisoners of war, domestic abuse, childhood abuse, and sex trafficking (Herman, 1997). I believe this also should apply to cases where the victim does not see a way out, as well. This would include situations of long-term abuse or sexual assault by someone in a position of power such as a boss, teacher, or unrelated caregiver. It may even be worth expanding into situations of blackmail, in particular where “revenge porn” is used as a threat against someone – a rapidly increasing occurrence.

Diagnostic Criteria

Complex PTSD presents seven categories of diagnostic requirement. First is the aforementioned traumatic source requirement. The next six refer to symptomology, particularly in ways that present beyond the expectations of PTSD (Herman, 1997). Because these criteria were proposed in 1992 initially, there are not categories that conform nearly with DSM-5, and the psychologist must trust their judgement accordingly.

Affect Regulation

Affect regulation is the first symptom cluster listed by Dr. Judith Herman, generally coinciding with the negative alteration of cognition and mood in DSM-5. Complex PTSD

specifies pervasive dysphoria as a symptom, as well as chronic suicidal ideation. It also suggests an increase in self-injurious behavior is a symptom of chronic PTSD, whereas this is not listed in DSM-5. Finally, expression of sexuality and anger may be presented in inhibited or explosive ways (e.g. hyposexuality and hypersexuality), potentially varying based on the situation (Herman, 1997, p. 121) – a more specific version of the hyperarousal within DSM-5.

Alterations in Consciousness

The second proposed cluster is alterations in consciousness. This cluster includes memory and awareness disorders presented as part of complex PTSD. Herman describes dissociation as a part of this cluster (in contrast with the PTSD with dissociative symptoms subtype later added to DSM). Amnesia is among these as well, referring to loss of memory of the event itself and/or surrounding events. Contrasting with this, hypermnesia is also a possible outcome. In both cases, this appears to refer to episodic memory, and is a retrograde amnesia or hypermnesia.

Depersonalization is also included within the second cluster of symptoms; it represents a wide spectrum of experiences that can be vaguely described as a dissonance between one's experiences and self. Depersonalization (also referred to as derealization) is common during traumatic events, with rates between 31 and 66% reported (Sierra, David, & Hunter, 2004). Herman does not specify whether this derealization refers to during the trauma, memory of the trauma, or even occurrences after. However, the feeling of derealization is reported by some PTSD sufferers, including states of fugue after the event ("Dissociative Subtype of PTSD - PTSD: National Center for PTSD," 2014), suggesting that a continued experience may be most important in diagnosis.

Finally, a more specific form of reliving symptoms are listed in the second cluster, including flashbacks and rumination. As mentioned previously, flashbacks are described as a feeling of reliving a past trauma or that the trauma is currently happening. They tend to disconnect a person from the situation around them and can be an overwhelming sensation, feeling completely real to the person experiencing the flashback. Added to complex PTSD in comparison to standard models is the ruminative pre-occupation, wherein the victim is unable to move away from the thoughts of the trauma or perpetrator, as compared to the pure avoidance behavior in DSM-5.

Self-perception

Third in the complex PTSD symptoms are the alterations of self-perception (Herman, 1997). These symptoms are not uncommon in PTSD cases, and on their own do not indicate complex PTSD. Helplessness is first among these, and is a common element of trauma. Self-blame and guilt follow, common in particular in combat and sexual trauma. With combat trauma involving the loss of fellow combatants, this may manifest as survivor's guilt. With sexual trauma, societal messages that tend toward disbelieving or blaming the victim of sexual assault are apt to cause someone to believe they caused it. Sexual assault survivors are also prone to the third element of the cluster – feeling defiled, or stigmatized (Herman, 1997). This is something that can be prevented or remedied with a proper support system, and cognitive methods are particularly good for challenging these ideas. Finally, the alterations in self-perception include nobody can understand, or that trauma survivors are alone in the world (Herman, 1997). Group therapy, conjoint therapy, or even simple meetings for PTSD sufferers or survivors of similar trauma can help alleviate this fourth issue by providing concrete demonstration that others understand their pain.

Perception of Perpetrator

Perhaps the most unique set of symptoms that serves to define complex PTSD versus standard forms are the alterations in perception of the perpetrator (Herman, 1997). Due to the overwhelming control held over the victim in complex PTSD cases, the ideas of perpetrators become distorted and enlarged. For some, they take on godlike proportion – for others, they become mythical demons.

Those with complex PTSD may attribute absolute power to the perpetrator, long after their release. They find themselves unable to resist now, just as they were then – this symptom may coexist with the intense self-blame, serving as a distinct paradox. The survivor may see the self as the one to blame, yet believe the perpetrator to be the one in charge at all times.

Another set of apparently paradoxical ideas comes in two other forms intrusive thought – a preoccupation with the relationship with the perpetrator, including thoughts of revenge. At the same time, idealization and even gratitude are possible, often very distressing ideas to the survivor (Herman, 1997). Notable examples of this include survivors who were younger when the traumas occurred, where the perpetrator has the additional power of adulthood and “maturity.” In cases such as this, one may see such expressions as rape victims falling in love with their rapist, or teenagers thankful for someone teaching them “how the world works.” In addition to this, those with complex PTSD may be prone to believing the perpetrator. This may manifest in terms of believing excuses, believing verbal assaults to be true, or even believing in the cause of the perpetrator (aka, Stockholm Syndrome) (Herman, 1997).

Finally, complex PTSD patients may report a sense of a supernatural connection with the perpetrator (Herman, 1997). This is a vague description, likely by design; it may include ideas of

mind control, telekinesis, or even of a dead perpetrator haunting the survivor. It is very possible for these symptoms to mimic schizophrenia, or even be comorbid with it, and differential diagnosis may be particularly important if this feeling is expressed.

Relationships

Herman also defines “alterations in relations with others.” While these are possible PTSD issues, the level of severity encountered in complex PTSD takes it to a level beyond the norm for trauma (Herman, 1997). Unsurprisingly, intimate relations are often disrupted – this is a common issue with PTSD. Beyond that, those with complex PTSD are likely to isolate themselves, and this may tie in with the previously reported themes of isolation and hopelessness; if nobody understands how they feel, there’s no reason to try to connect with anyone. Additionally, they have not only a hard time trusting, but may express active distrust toward others.

Though it may seem contradictory, those with complex PTSD often seem to be searching for someone who can rescue them. This may be from their general life situation, their trauma, or the perpetrator if still involved in the survivor’s life. At the same time, the failure to protect oneself is a feature of complex PTSD. When presented with danger, sufferers may simply give up before they try to defend themselves or escape harm based on the sense of inevitability. They may put themselves in dangerous situations, or simply be careless in their lives. Both of these symptoms serve to underscore the sense of vulnerability that manifests with complex PTSD, from the helplessness mentioned in the third cluster to the godlike nature of the perpetrator in the fourth.

Systems of Meaning

The final cluster for complex PTSD is alterations or losses of systems of meaning. Those with complex PTSD may report a loss of faith, partially or entirely. Philosophies they lived by previously may fail them in the face of their experience, and a sense of meaninglessness may prevail. Hopelessness and despair replace what they found reassuring, and where strength was, fear is (Herman, 1997).

Summary of Complex PTSD

Complex PTSD's array of clusters contain very few, if any, that could be considered endemic to it. Rather, the whole of the clusters paints a unique picture of severity. Any trauma survivor may feel hopeless, may seek revenge, may lose faith, but when these pieces are all in place, special care should be taken due to the difficult nature of treatment. However, complex PTSD is far from the only way such severe trauma may manifest. While not formally recognized as PTSD, there are strong correlational ties between PTSD, including borderline personality disorder, somatoform disorder, and dissociative identity disorder (Herman, 1997).

Comorbidity

Besides the complications of diagnosing specific subtypes of post-traumatic stress disorder, PTSD comes with an array of common comorbidities. A large study of performed with those seeking treatment for depression revealed that 36% of patients met the PTSD criteria according to The Primary Care PTSD Screen. The National Alliance for the Mentally Ill (NAMI)

reports that 6.7% of adult Americans have major depression (Duckworth, 2013) – suggesting a significant overlap, with the WHO’s suggestion of 6.8% lifetime PTSD occurrence in the US.

Alcohol and substance abuse are also common issues with PTSD. One study of those seeking treatment for substance abuse found 25% PTSD symptomology (Brown, Recupero, & Stout, 1995). According to the National Center for PTSD, up to 75% of violent trauma survivors and up to 33% of traumatic accident, illness, or disaster survivors report drinking problems (“PTSD and Problems with Alcohol Use,” 2014). It is imperative, accordingly, that any patient being treated for substance abuse issues also be screened for PTSD, and that PTSD patients be screened for substance abuse issues.

Self-injury and other forms of self-harm may be found in PTSD patients – particularly complex PTSD (“Complex PTSD - PTSD: National Center for PTSD,” 2013). These behaviors may be simple reckless behavior, an extension of substance abuse, intentional self-injury such as cutting, or even self-injury that occurs as part of a flashback.

Survivor’s guilt is also a commonly seen issue with PTSD patients. While not specified as part of PTSD under DSM-5, guilt over surviving a traumatic event or not doing enough to prevent it is recognized as a feature of acute stress disorder (American Psychiatric Association & American Psychiatric Association, 2013). Given that ASD is a strong predictor (“Acute Stress Disorder - PTSD: National Center for PTSD,” 2014), it is a reasonable assumption that it may be found in PTSD patients.

Misdiagnosis

Because of its array of symptoms and subtypes, PTSD may be misdiagnosed. According to Doctor Laura S. Brown, PTSD comes from a combination of trauma and socio-cultural factors which prevent the victim from processing their trauma effectively. Because of the ways traumas can manifest, differential diagnostics are recommended to avoid misdiagnosis (Rothblum & Cole, 1986). In particular, one should look for acute stress disorder and borderline personality disorder as common misdiagnoses. The International Society for Traumatic Stress Studies recommends the Structured Clinical Interview for DSM-IV (Foa & International Society for Traumatic Stress Studies, 2009), but with the advent of DSM-5, newer, more relevant methods are likely available for this. Regardless, previous structured interviews may at least reveal likely comorbidities that can be confirmed according to modern definitions.

Acute Stress Disorder

Acute stress disorder (ASD) symptoms very much reflect those of PTSD (“Acute Stress Disorder - PTSD: National Center for PTSD,” 2014), but contain important distinctions. Chief among these is time; ASD is an early diagnosis, requiring a minimum of three days, but a maximum of a month. In addition, where PTSD has a subtype for dissociation, ASD requires it, either as an altered sense of reality or dissociative amnesia (American Psychiatric Association & American Psychiatric Association, 2013).

While it has potential to be a misdiagnosis, ASD also serves as a warning. Those with ASD run a 78-83% chance of developing PTSD, and those who meet ASD criteria excepting for dissociative symptoms run similar rates (“Acute Stress Disorder - PTSD: National Center for

PTSD,” 2014). Because of this, there is still debate on whether these symptoms are different at all, or if ASD should be considered an early PTSD manifestation.

In either case, the best practice here is to intervene early. Cognitive behavioral methods have shown to be the most effective method here, and reduce the incidence of transition from ASD to PTSD (“Acute Stress Disorder - PTSD: National Center for PTSD,” 2014), as well as likely lessening PTSD symptoms if the disorder develops.

Borderline Personality Disorder

While there is potential for BPD to be a misdiagnosis, it is important to return to the previously mentioned possibility of BPD being a form of complex PTSD as suggested by Dr. Judith Herman, along with somatization disorder and multiple personality disorder (aka, dissociative identity disorder). All three have strong ties to childhood abuse, and the trends point to a greater likelihood of development of one of these based on youth and severity. 55 percent of somatization disorders, 61 percent of borderline, and 97 percent of dissociative cases involve severe child abuse (Herman, 1997). Conversely, a study on BPD showed 56.4% PTSD comorbidity rate (Harned, Rizvi, & Linehan, 2010). Dr. Herman points out that these three disorders often overlap, suggesting they may be manifestations of the same thing. Given the traumatic sources in question are strongly correlated with complex PTSD, it is not unreasonable to approach them as variants thereof.

While the conclusion makes intuitive sense, it is not a settled matter. A more recent study of complex PTSD and borderline personality disorder drew the conclusion these should remain separate, despite the high overlap (Cloitre, Garvert, Weiss, Carlson, & Bryant, 2014). The study argues that the defining features of BPD are fears of abandonment and shifting self-concepts,

while the key maladaptive behaviors are self-injurious or suicidal. Additionally, BPD does not have a requirement of trauma, which separates it from DSM-5's requirements for PTSD diagnosis. Meanwhile, PTSD has no requirements for fear of abandonment, and self-image is a constant negative.

Another factor with BPD is the highly gendered diagnosis it presents. 75% of diagnoses of BPD are women (American Psychiatric Association & American Psychiatric Association, 2013), which suggests that cultural factors are in play. Psychologists may be biased toward assuming BPD in women based on cultural stereotypes and gender roles; women acting in ways that seem angry or lashing out are deprecated, versus these behaviors being culturally endorsed for men. Self-harm in men may be considered more serious, emotional lability in women more pathologized. These factors do not tend to favor one side over the other in the BPD debate, but they indicate a need to double check women who are diagnosed as BPD, and increase consideration of the disorder as a possibility for men.

Whether or not BPD is a variation of PTSD, the best practice when BPD manifests is to treat it first, due to its interference with PTSD treatment. Dialectical behavior therapy is the best modality for this by far, and the nature of the treatment benefits PTSD recovery because of the emphasis on emotional regulation, distress tolerance, sharing experiences, and building trust (Linehan, 2013).

Risk Factors

Of course, more valuable than treatment of PTSD is prevention. This presents challenges, certainly, as most people do not seek therapy as a preventative measure, nor do many have the option in the current system within the United States. Among those who present symptoms after

a trauma, it is estimated that between 10 to 20 percent will develop PTSD. Among them, 50 percent will likely improve without treatment, and 10 to 20 percent will develop chronic PTSD (Gartlehner et al., 2013). Among the major risk factors for PTSD are chronic stress, mental illness, and a lack of social support (Halligan & Yehuda, 2000) – all things a psychologist can help with.

These risk factors are particularly important in preventing PTSD development in combat veterans and sexual assault survivors. For the former group, the chronic stresses of military life may lead to a predisposition toward PTSD development, exacerbated by the stigma toward discussing traumatic events. For sexual assault survivors, social support is often lacking, and worsened by the tendency toward victim blaming and skepticism.

In the intersection of these groups are military sexual trauma (MST) survivors. The chronic stresses of military life combined with the lack of support for sexual assault combine within this group. In particular, women in the military face the “rule of silence” which prevents them from speaking up due to fear of retribution on top of the sense of shame that often afflicts veterans having difficulty in coping (Rothblum & Cole, 1986). It is likely that for this group above all others, early intervention is key to either preventing PTSD development or reducing the difficulty of later treatment.

Prevention

While there are many risk factors for PTSD development, there are also things that aid in its prevention. A strong support network, first and foremost, can help keep people safe. Validation of trauma from friends, family, and fellow survivors is tremendously powerful. Just as waiting until symptoms are severe can make PTSD treatment harder, early intervention can

prevent development entirely. The ability to speak openly about traumatic events is likely helpful for many, and access to resources that can point someone in the right direction goes a very long way.

Pharmacological methods are also useful in the prevention of PTSD. Studies of the beta blocker Propranolol (Inderal) have shown a reduction in the development of PTSD symptoms, with a possible complete prevention of PTSD (National Institute of Mental Health, n.d.). Though these studies are early, they seem to demonstrate that reducing stress immediately after trauma and working to prevent the development of traumatic memory may have a significant long-term impact.

Unfortunately, many of these things are out of the psychologist's control. However, just as PTSD recognition came through psychologists and activists working toward mainstream awareness, psychologists can and should work toward changing the social issues that get in the way of early treatment. Reducing the stigma of mental illness benefits both trauma survivors and mental health as a whole.

Best Practices for Treatment

When prevention fails or is simply unavailable, therapists must know how to treat chronic PTSD. Regardless of other conditions, no treatment method has more studies showing its efficacy than exposure therapy, and as such it is the universal recommendation among cognitive behavioral methods according to the International Society for Traumatic Stress Studies (Foa & International Society for Traumatic Stress Studies, 2009). However, this is a simplified view of the subject that fails to account for the different origins of trauma and the ways they affect treatment. PTSD often includes comorbidities, and presents challenges to therapy that may make

patients unlikely to complete an exposure based course of therapy. Although exposure is a major component or even the backbone of the most effective methods, evidence suggests that combination methods are the most effective option for long-term recovery for more complex traumas.

Sexual Trauma

Sexual trauma, for example, is often a complicated matter. Recovery from it is marked by two major needs – safety and self-direction. In an optimum setting, these needs could be served in an inpatient setting. In practice, the best approach to this is likely to be exposure based and may even be reminiscent of phobia desensitization methods. Additional difficulty is presented in the likely damage to personal relationships and trust. As 82% of rapes are committed by someone known to the victim (RAINN, 2009), the shattering of trust that comes with the trauma can be one of the most difficult obstacles to the therapeutic relationship. Group therapy methods, used as a supplement, can be tremendously useful in this.

Ultimately, the best primary method for treating sexual trauma is cognitive processing therapy. The program's nature is flexible and designed to be altered as needed, functions in a group model, and is particularly focused on issues sexual assault can create.

While CPT is the recommended primary method, the Trauma Recovery Group endorses a multimodal approach (Mendelsohn, 2011) to recovery. Exposure sections may be needed for some patients, while others may need relaxation therapy. As previously mentioned, some therapies are best avoided unless demonstrated as essential. For sexual assault survivors, pharmacotherapy can be tremendously aversive, and hypnosis may present similar issues due to the relinquishing of control.

Finally, for sexual assault survivors who do not respond to CPT or other cognitive behavioral methods, Dr. Judith Herman's stage based model is suggested. Although it is rooted in psychodynamic methods, it is a distinctly goal focused model built on reconnecting a patient with the world, particularly useful for those facing severe disruptions in trust.

Combat Trauma

For combat survivors, CPT is again recommended as the primary treatment modality, in conjunction with exposure therapies. CPT has been shown effective by randomized, controlled clinical trials for male and female veterans (Foa & International Society for Traumatic Stress Studies, 2009). Exposure therapy may be performed by imaginal or in vivo methods, and new, hi-tech methods are becoming increasingly available that blend these two. In particular, war themed video games may serve as a controlled exposure method by presenting triggering stimuli while presenting the patient with varying levels of control over the situation. Other methods allow for customization of a game to fit a unique trauma, such as the Bravemind system (USC Institute for Creative Technologies, 2015). Finally, group modalities should be employed to provide a sense of comradery that many find unavailable in the civilian world due to the unique nature of combat trauma.

Other Traumas

While the majority of traumas come from child abuse, sexual assault, and combat trauma, there are myriad other sources. A robbery or mugging certainly may lead to PTSD symptoms, or a violent car accident. Social workers have nearly double the rates of PTSD incidence as the general population (Bride, 2007), and secondary trauma is certainly a risk in other health care professions.

Best Practices for Treatment of Post-traumatic Stress Disorder

For single incident trauma outside the scope of sexual or combat trauma, trauma treatment protocol is generally the best approach. The method's combination of relaxation training, cognitive challenging, and exposure are especially effective for those dealing with a fear-avoidance behavior. This is a particularly good method to use for victims of a single violent non-sexual crime or accidental injury where confidence building is a significant need. For those who do not respond to such methods, psychodynamic methods have been proven effective in single-source traumas. Psychodynamic approaches also may be most effective in cases of grief induced PTSD, such as traumatic injury/death of a friend or family member.

Finally, for health care professionals, a group therapy system is recommended for secondary trauma, with present-centered group therapy being the preferred method. Although TGCT demonstrates a stronger statistical outcome in general testing, PCGT is particularly useful in creating a positive environment by focusing on group members' strengths, and is the method best suited to help reaffirm the value of their work while acknowledging the emotional challenge and strain that they experience. Additionally, its avoidance of exploration of traumatic events creates a low transference environment (Foy, Unger, & Wattenberg, 2004); an important factor as transference is the initial traumatic source.

Best Practices for Complex PTSD

When treating complex PTSD, the key first step is determination of what comorbid issues are present. A structural clinical interview is useful in this (Foa & International Society for Traumatic Stress Studies, 2009), and allows psychologists to set their treatment priorities. Some issues, such as depression and borderline personality disorder, may get in the way of initial PTSD treatment, and should be handled first. Others, such as obsessive compulsive disorder or

generalized anxiety disorder, require a separate treatment or may be presented as a part of complex PTSD, resolving with the main treatment.

Although designed initially for borderline personality disorder, dialectical behavior therapy is recommended as the first treatment method for cases of complex PTSD. Aside from the high rates of comorbidity, BPD and complex PTSD present many of the same challenges. As previously referenced, there are debates over the possibility of being varied manifestations of the same disorder. The challenges in affect regulation between inhibition and explosion of complex PTSD can mirror the emotional extremes of BPD, and the damage to trust in complex PTSD can reflect the fear of abandonment in BPD. Because DBT challenges assumptions and belief systems, it can benefit both the changes that occur as part of complex PTSD. It even provides validation in its group elements, something often needed by those with PTSD. Without a doubt, DBT is the first method to employ toward treating complex PTSD.

If dialectical behavior therapy is unavailable or otherwise unsuitable, the next best method available is cognitive processing therapy. CPT's focus on self-awareness aids in the self-regulation challenges of complex PTSD particularly well, and can also be implemented in a group setting. It also serves well in cases where substance abuse or personality disorders are present, giving it an advantage over raw exposure therapy.

Working with Patients

For therapists treating PTSD, knowing how to work with patients is as important as knowing what method to use. The ability to properly apply cognitive behavioral methods or stage therapy is important, but being able to build a successful relationship is critical, as with any therapeutic venture.

Triggers

Among the most important elements are learning triggers for a particular patient. While the ideal patient knows their triggering items, the ideal psychologist asks, rather than assuming. Knowing these not only helps the therapist with exposure methods, but helps to prevent accidentally triggering a patient when they need to be relaxed, and avoid damaging the relationship. Psychologists should also make an effort to discuss other potential triggers as well, based on commonly held ones and things that seem to pose a risk based on sessions. This information can serve as a preventative measure as well as provide the patient practice handling what are likely less disruptive stimuli.

Another important skill is the ability to interrupt flashbacks and dissociation – in clinical settings, these are not always bad things and a patient may be guided through them. However, they can be timed in a way that harms treatment, particularly any relaxation modalities. Fortunately, though flashbacks are powerful internal stimuli, they can be interrupted by external stimuli. Physical sensations such as cold may work, as long as the trauma is not associated with cold. Another possibility, learned from acquaintances who wish to remain anonymous, is new music. This is most effective when dealing with older traumas, but the dissonance between the perception of the flashback and the intrusive reality can interrupt the stimulus-response chain. It is my hypothesis that this method provides a cue that the situation being re-experienced is not currently happening by creating an impossible situation. For example, a patient traumatized as a teenager may be able to use a song from her twenties in this way – by thinking of or listening to a song that did not exist at the time when she realizes a flashback is beginning, she can create a paradox that demonstrates the unreality of the situation. Alternately, if a patient begins dissociating, a therapist may play a pre-determined song to assist the patient. While there is a risk

of the newer stimulus turning from a neutral to conditioned stimulus, the effect of interrupting the chain has proven to be more powerful. Rotation or randomization of the stimulus used may further dampen this risk, but still interrupted the response in the same way.

Finally, simple stimuli with strong effects can work for this. Experience with PTSD populations has taught that of the most common is a patient's cell phone, particularly among those prone to immediate response to a phone call or message. By provoking a different, incompatible behavior, the stimulus chain that leads to the continuation of a flashback can be interrupted. AS with the previous musical method of interruption, a new ringtone can be particularly effective for this. This is just a single example, but any stimulus which provokes an immediate response may serve this purpose.

Nightmares

In treating PTSD, therapists may often encounter a particularly common difficulty that interferes with treatment – nightmares. While these are a common element of PTSD and should be resolved with treatment, it is possible for them to get in the way and require addressing on their own.

Regardless of the source, the best practices for treatment of nightmares tend to be the same. Image Rehearsal Therapy (IRT) has shown to be effective as a cognitive-behavioral approach. In IRT, patients work on remembering the nightmares and rehearsing them while awake, attempting to change the outcomes (“Nightmares and PTSD: Research Review - PTSD: National Center for PTSD,” 2014). It is my deduction that this may in turn affect PTSD symptoms as a whole, by providing new cognitive patterns which can affect flashbacks as well as

day to day reactions, as with any exposure therapy. If so, this would create a valuable self-reinforcing cycle, and should be pursued.

The National Center for PTSD also suggests therapists consider treatments for breathing problems during sleep for patients with PTSD. CPAP devices, for example, have been shown to eliminate nightmares that come with PTSD (“Nightmares and PTSD: Research Review - PTSD: National Center for PTSD,” 2014). Additionally, some drugs may have effects on reduction of nightmares, but data is insufficient. Currently, prazosin is the most promising medication for pharmacological treatment (“Nightmares and PTSD: Research Review - PTSD: National Center for PTSD,” 2014).

Case Study Excerpts

In order to demonstrate the manifestations of post-traumatic stress disorder in real world settings, I have included four case studies.

Mark

The Australian Department of Veterans’ Affairs provides a written account by Mark, a 41-year-old infantryman diagnosed with PTSD. His symptoms are a classic account of PTSD as it applies to soldiers, and the way being exposed to other people’s harms can cause someone else’s trauma.

“But when I got home a few weeks later, I couldn’t get those images out of my mind. There were lots of them, but one in particular – a young child who had been mutilated but left alive – came back to me over and over again. Pictures jumping into my mind during the day, nightmares at night. I was short-tempered and on edge, shouting at my wife, losing my cool with

the kids. Couldn't think straight. Just wanted to lock myself away and draw the curtains (Mark & Australian Department of Veterans' Affairs, n.d.).”

The exposure criteria are met by Mark's exposure to a village attacked by local militants, with the harm done to a child haunting him. The nightmares and pictures fall under the category of re-experiencing, Short-temperedness suggests alterations in arousal, and the inability to think demonstrates the changes in cognition. Mark's desire to lock himself away suggests avoidance symptoms, of people and places, even loved ones. The time criterion is suggested by the reference toward the issues occurring several weeks after the event, and the severity is clear. While his account does not guarantee the exclusion criteria are met, the other seven criteria are readily met.

Mark's story is quite optimistic – he has begun a medication plan as of the time of writing that has proven effective, alongside weekly visits to a psychologist. With a good support structure, recovery is likely.

Maria

Dr. Harold Cohen writes about two more PTSD patients for Psych Central – one a rape survivor, one a combat survivor (Cohen, n.d.).

Maria, the rape survivor, describes common symptoms and problems in recovery. She had nightmares and intrusive after the attack. She was unable to take the same route she did on the day of her assault and reported feeling emotionally numb much of the time. Yet at home, anxiety defined her. Her symptoms lasted for months, and caused her tremendous difficulties in

daily living and interpersonal relations. Again, aside from exclusion, Maria met all diagnostic requirements.

Maria's recovery path began by confiding in her art teacher, who supported her immediately and refuted ideas of being damaged or defiled. She began a group therapy program wherein she found validation and camaraderie. Learning of others who felt the same as she did reduced her isolation, and she was able to relieve her guilt and express anger, as well as re-connect with others. Maria also benefitted from medication which aided the reduction of anxiety and intrusive memories (Cohen, n.d.).

Joe

Joe, Dr. Cohen's combat survivor, had several particularly gruesome incidents. Among the most troubling was seeing a friend killed by a mine (Cohen, n.d.) – a combined trauma of seeing a friend harmed as well as narrowly avoiding one's own death. Joe would see the battle playing out in his mind after his deployment ended, and familiar stimuli, such as the scent of diesel fumes, caused him to re-experience the events they were paired with. He avoided his military friends, for fear it would bring memories to the surface, but also reported difficulty in remembering things on his own. At home, he was in a state of hyperarousal, unable to relax and sleep; he often reacted to loud noises as if a battle were about to begin. Joe also began drinking heavily, expressing one of the most common comorbidities. Joe meets all but two of the criteria for PTSD diagnosis in this account, lacking only duration and exclusion.

Joe's recovery began with confiding in his girlfriend, who also pushed him to get treatment. Unlike Maria, Joe chose one-on-one therapy, which began with eliminating alcohol use. They proceeded to identify his triggers and began helping him manage his symptoms. After

this, they used exposure therapy in the form of old war movies. Like Maria, Joe benefitted from medication as well, which helped to reduce his arousal levels (Cohen, n.d.).

Jane Doe

John Burton, M.D. writes about a particularly severe PTSD case involving an unnamed elderly woman (Burton, n.d.), referred to as Jane for purposes of this thesis. Jane was a fully functional 90-year-old woman, assaulted by a burglar in her home two years after her husband's death. She lived alone at the time, and had only one remaining relative who she spoke to once a month. Over two months of living at a community nursing home, her symptoms of distress, delusion, and confusion were reduced.

9 months later, Jane Doe became ill again, demonstrating severe paranoia and psychotic symptoms. She reported men and women in her bed, and was hospitalized in a psychiatric unit. Symptoms recurred after her release, to the level that she was nearly evicted for refusal of treatment. She was convinced by her hired caregiver to taking a neuroleptic, which resulted in steady improvement and stabilization (Burton, n.d.).

Jane Doe's case is easy to read for exposure, alterations in cognition, arousal, and for severity in the forms of her reported distress and confusion, as well as her near eviction. She may have expressed avoidance by choosing to move to another location after the rape. Her previous mental health records reported her as being healthy, lending cause to believe she met the exclusion criteria. While the typical presentation of re-experiencing symptoms revolves around concepts of seeing events as they happened or similarly to it, hallucinations are a rare but possible manifestation. Jane Doe also showed the difficulties that can be associated with treatment at times. First, she showed the importance of environmental control in a recovery

process. As an inpatient, she showed improvement, but when returned to an uncontrolled environment, she slowly began developing symptoms of PTSD again. Secondly, she showed the difficulties that can come with pharmacotherapy, refusing treatment until convinced by a trusted acquaintance. Although her case had a positive outcome, these issues may be unresolved in other cases. Consequently, practitioners should be aware of the fundamental elements of a successful plan, in addition to being willing and able to change a treatment program as needed.

Effective Treatment Plans

Despite the efficacy of the discussed treatments, no method is perfect, and no plan goes unaltered. Helmuth Von Moltke reportedly stated “No operation extends with any certainty beyond the first encounter with the main body of the enemy.” In the hands of time, this has become the more recognizable phrase “No plan survives first contact with the enemy”, attributed from Van Moltke to Napoleon to George Patton. While one may hesitate to consider medical practice as being so adversarial, there will be missteps along the way despite the best intentions of patients and psychologists. Progress will not be a linear path, even in the best circumstances, and patients should be made aware of this before a program begins.

Record Keeping

Good record keeping is vitally important – not only for the therapist to monitor changes and have a frame of reference, but for the patient to see. Accordingly, proper treatment always begins with a baseline. For even healthy individuals, a lack of self-apparent progress can be discouraging. For those predisposed toward negativity, it can halt progress entirely. By tracking behavioral changes, psychologists can point out tangible improvements, giving patients evidence

of their hard work and recovery. Just as importantly, they have the tools to see if there is a lack of change rather than allowing stagnation and frustration to set in for the patient.

Reinforcement

When treatment stalls regardless, psychologists and patients should talk about the difficulties encountered. Exposure methods in particular can be challenging and traumatic in their own right, and the natural reinforcement of healing may not surpass the punishment of the experience. In such cases, therapists should work with patients to create a system of reinforcement to encourage them. Positive event schedules are useful for this, and will help patients through the more difficult sections of treatment.

Changing Plans

Should all this fail, it may be time to consider changing the program more drastically, or even trying a new method. Not all patients will respond the same to all treatments – some will be responsive to psychodynamic methods while others will ask what their relationship with their mother has to do with being shot at. While an artist may be a prime candidate for creative therapies, a salaryman is not. Despite all guidelines and testing, a therapist should trust their instincts and build a collaborative relationship with a patient based on mutual input.

Conclusion

Now that PTSD has come to a modern understanding, records throughout history are available for us to learn from. We can study the ways nostalgia was treated, the way “spent men” were able to recover, and we can integrate this knowledge into evidence-based methods. While PTSD is an intimidating and increasingly common diagnosis, it is treatable. New methods of

Best Practices for Treatment of Post-traumatic Stress Disorder

treatment are emerging at a fantastic rate, and promising experimental treatments are currently being reviewed. From cognitive processing therapy to beta blockers to gaming as exposure and immersion, an array of tools are at the psychologist's disposal. In time, PTSD will be considered as easily treated as a phobia, and the way to that future will be built on the methods discussed here.

Acknowledgements

Special thanks are extended to the following for their aid in the process, be they exceptional teachers, advisors, colleagues, or friends. The lessons learned from each were invaluable this process, whether their contribution was information, experience, or support.

- Dr. Andrea Goforth
- Dr. Ann Marie Fallon
- Ash Doak
- Cesar Gonzalez
- Elaine Franks
- Dr. Greg Townley
- Dr. John Westerman
- Dr. Kam Majer
- Keanna Jones
- Lucile Tower
- Luke Crow
- Dr. Marsha Linehan
- Penny Campbell
- Peter Lupu
- Sally Eck
- Dr. Shawn Johnston
- Sophia Newton
- Tim Kelly

Additionally, I wish to acknowledge Roslyn Farrington, beloved member of the Portland State community who we lost this year. Her presence on campus was powerful; she taught us to be fearless, to reach for our goals, and most importantly, to be our authentic selves. The wisdom shared in Roslyn's classes continues to be treasured, and her belief in her students helped me grow as both a student and a person in ways I never imagined. We miss you, Sister Love.

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