Understanding Posttraumatic Stress Disorder at a Residential Program for Concurrent Addiction and Mental Health Problems

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Abstract

The experience of trauma is higher in individuals with concurrent disorders than in the general population, yet little attention to trauma is given in making a clinical diagnosis for mental illness. This study involved screening for post-traumatic stress disorder (PTSD) in a residential concurrent population, and indicates 60% of individuals presenting for treatment of addiction likely suffer from PTSD as well. Typically PTSD was undiagnosed, with only 6% of those positively assessed having a diagnosis in their clinical record. The study involved 146 participants and resulted in 87 people meeting PTSD criteria. Individuals were screened upon admission to the program over a one-year period of the programs operation. The group reported a total of 483 traumatic events which met Criterion A of the DSM-IV for PTSD. The most common mental illness diagnosed among the group was depression, followed by personality disorders. Suggestions for improvement of the program curriculum to better address the needs of the population are given. The most common substance of choice was alcohol, followed by cannabis, poly substances and cocaine.

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Introduction

This study involved screening for a history of trauma and posttraumatic stress disorder (PTSD) in the clients presenting for addiction treatment at the Georgianwood Concurrent Disorders Program (Georgianwood), and examining the treatment given with regard to such trauma. Georgianwood is located at the Mental Health Centre Penetanguishene (MHCP) in Ontario, Canada and has been operating for 32 years as a publicly funded residential addiction treatment program. The program has recently (April 1, 2003) changed its mandate to only treat people with concurrent disorders. Concurrent disorders refers to the presence of a mental illness as well as a substance use problem. The change to a concurrent disorder program allows for persons with mental disorders to attend and receive their prescription medications, whereas in the past, zero tolerance for any drug use was enforced including prescription medications. This change has been a huge step forward in treating addiction in those with mental illness, but the program does not include treatment for mental illness. This change in consumers served has involved changes in the way the program operates. The new coordinator of the program has been given a mandate to institute changes to the program to better serve a concurrent disorder population. The future of the program has at times been in question, with reduced funding available to treat the mentally ill.

With the growing need for addiction treatment, coupled with reduced funding available for such programs, it is imperative that those programs funded maximize the effectiveness of treatment. Effectiveness at Georgianwood is defined as the ability of the curriculum to assist clients to reach the program's goal of abstinence. The curriculum of the program is a key factor in helping clients alter their behaviour with regard to substance use. Part of the curriculum of interest in this research project is assessment of the individuals' presenting for treatment. This study focuses on screening for PTSD

(which, due to this research, was briefly part of the routine intake assessment process) and the issue of whether any interventions were in place to treat PTSD. If the curriculum does not meet the needs of those suffering from PTSD, the likelihood of relapse into substance use is dramatically increased since substance use disorders are unlikely to be effectively treated unless the treatment includes "the variety of behavioural influences and environmental contexts in which the traumatized person is embedded" (Ruzek, Polusny & Abueg, 1998, p. 232). Although recent research has indicated the high prevalence of traumatic events occurring in the lives of people with severe mental illness and identified the correlation between PTSD and substance abuse, there is still little attention paid to the treatment of PTSD (Mueser et. al., 1998). The most common consequence of a history of trauma is substance abuse in the general population (Mueser, Noordsy, Drake & Fox, 2003). Men are more likely than women to experience events associated with PTSD, with 60.7% of men and 51.2% of women indicating lifetime exposure to traumatic events in the general population (Wilson, 2004). However, women are more likely than men to develop PTSD at a rate of 10% in the general population compared to 5% of men (Wilson, 2004). In those seeking substance use treatment the incidence of PTSD and substance use disorder is two to three times more common in women than men (Najavits, 2002). In those with severe mental illness the history of trauma exceeds the rate of the general population and the incidence of substance use disorders is also higher (Mueser et al., 1998; Mueser, Rosenberg, Goodman & Trumbetta, 2002). Severe mental illness is generally thought to include schizophrenia, bipolar disorder and major depression. Likewise, the development of PTSD is common among those with a psychiatric disorder with 80% of those surveyed in the National Comorbidity Study who had lifetime PTSD also meeting criteria for another mental illness (Freidman, 2006).

Addiction is often at the root of much criminal behaviour, child physical and sexual abuse, spousal abuse, self-abuse and low self-esteem (Butler & Allnut, 2003; Rosenthal & Westreich, 1999). Addiction may also trigger and/or exacerbate mental illness by causing increased symptoms such as suicidality, poor response to psychotropic medications, decreased functioning, and an increase of psychotic episodes (Rosenthal & Westreich, 1999). Successfully treating addiction may help reduce the spiral effect towards other social problems. It is estimated that up to 43% of people with severe mental illness have experienced trauma resulting in PTSD, as compared to 12% in the general population (Mueser et al., 2002). People with severe mental illness report rates of childhood sexual and physical abuse between 34% and 53% and lifetime exposure to interpersonal violence between 43% and 81% (Mueser et al., 1998). The use of alcohol and other substances increases the likelihood of PTSD and having PTSD can worsen the substance use problem (Mack & Frances, 2003). For example, after the September 11th, 2001 bombings in the United States, there was an observed increase in relapse of substance use problems and the use of new substances (Mack & Frances, 2003). Treating PTSD along with the substance use problem increases the likelihood of a positive outcome for substance use disorders (Health Canada, 2002; Rosenthal & Westreich, 1999; Ruzek et al., 1998).

In a study by Mueser et al. (1998), it was found that the highest rates of PTSD were found in patients with depression and borderline personality disorder, followed by those with other disorders and bipolar disorder and lowest in schizoaffective disorder and schizophrenia. The statistical information maintained over the past two years by Georgianwood indicates that the majority of clients entering the program have a diagnosis of depression, bipolar disorder, or personality disorders as well as a substance use disorder. Some have more than one diagnosis, while others have no concurrent

diagnoses at all for a mental illness, but are in the assessment stage while the substance use disorder is treated. If they have already been diagnosed with PTSD, that information is readily available; however, PTSD is not a diagnosis commonly seen upon admission, nor is it a diagnosis commonly made upon admission. Despite the high comorbidity with substance abuse and other mental illnesses, research has shown that most people seeking treatment for substance use are not assessed or treated for PTSD (Najavits, 2004).

The purpose of this study is to determine the prevalence of PTSD in the program population. This involves analyzing the results of data collected through the clinical administration of screening tools that indicate the likelihood of a PTSD diagnosis if a full psychiatric exam were done. The completed tools became part of the clinical file of each client and were available to the staff psychiatrist or other members of the clinical team. It is unknown whether the completed tools were consulted by program staff. In the year prior to the implementation of these screening tools in the program only nine individuals were diagnosed with PTSD in a total of 159 (6%) people treated at Georgianwood. Given that individuals with a substance use problem and a mental illness are more likely than the general population to have PTSD, it leads one to question whether it is being properly assessed upon admission and diagnosed, or even if it is being assessed at any point during the program.

In general, the main reasons to evaluate aspects of an existing program are to determine whether the program is achieving the desired outcomes, how the service can be improved, or even whether it should be continued. By determining the prevalence of PTSD, this study will be useful to determine if further research needs to be done on the effect of PTSD on the outcome of addiction treatment, and to examine how to improve the service for those with PTSD. Curriculum changes are being planned at Georgianwood to better treat individuals with concurrent disorders. The examination of the

Georgianwood intake process with regard to PTSD focuses on what needs to be done for clients suffering from PTSD, and to help these individuals achieve the stated goal of abstinence.

According to the program coordinator, the staff have often been resistant to change and although the program has never been evaluated, they say "If it ain't broke don't fix it". The problem is we don't know if it "ain't broke". The core content of the program has not changed much in the past thirty years, according to long-term staff. Client satisfaction surveys contain complaints about the use of videos from the 70's and lack of current materials. I have often heard staff and clients complaining of the lack of current resources. The diagnosis of PTSD is a relatively new phenomenon, and is not only misunderstood by the people that suffer from it, but also by some of the professionals that should be treating it (Ortman, 1997). It is hoped that this research will shine a light on the prevalence of PTSD in a substance abusing population and provide recommendations for treatment of individuals at Georgianwood.

Literature Review

Definitions and Georgianwood Background

It is useful to discuss the definitions of terms to be used throughout the paper in order to be clear about their interpretation and how they relate to the Georgianwood setting.

Program: A program can be defined as a set of activities designed to produce a certain outcome for the participants (Lee & Sampson, 1990). Every program has given objectives, processes, identifiable clients and outcomes. The Georgianwood program is a four-week residential addiction treatment program with a schedule which the program coordinator describes as primarily based on psycho-education, with some cognitive-behavioural techniques employed in dealing with distorted thoughts, recurrent thoughts, anger and self-abuse. Staff are trained as addiction counsellors or have various nursing designations. There used to be some aftercare for clients who completed the program, consisting of a minimum of three phone calls over a 90-day period following discharge, but this has been discontinued since this study was done. The objective of Georgianwood is "to enhance a healthy lifestyle while maintaining abstinence of mood altering chemical substances" (Georgianwood Logic Model, 2003).

Curriculum: For the purpose of this study, curriculum refers to not only the content of information being taught or discussed, but also the process by which it is delivered to the clients (Miller, 1988). Part of the curriculum is the intake process and completion of screening tools as well as any assessment of future needs and referrals to subsequent treatment upon discharge. A comprehensive assessment matches the needs of the client to the treatment offered.

Currently the written curriculum of Georgianwood consists of a rough outline of group sessions and other activities in a two-page schedule format. There is no detail in writing (i.e., a manual) as to what is covered in those sessions and the staff have considerable leeway as to how and when they cover a topic. Often the schedule is not followed as printed, due to staff absence for vacation, illness, education and so on. Discussion with the program coordinator indicates that PTSD is not formally covered in the group content nor is any other mental illness. There is nothing in writing to indicate otherwise in program brochures. Assessment on intake to the program briefly included screening for a history of trauma and an assessment of PTSD that corresponds to DSM-IV criteria (outlined in methods – see below). This assessment was dropped from the intake process in November 2005 and the program psychiatrist began completing the Mini International Neuropsychiatric Interview (MINI) with each individual, which includes a screen for PTSD.

Substance Abuse: A substance use disorder refers to the abuse of, or dependence on, a chemical substance such as psychoactive drugs (including alcohol) and may involve use of more than one substance. "Within the substance abuse field itself, there is no working consensus on how to classify important sub-groups of people with substance-related problems" (Health Canada, 2002, p. 9). These sub-groups include people with substance use problems but their use does not meet DSM-IV classification.

According to the Psychiatric Dictionary, seventh edition, addiction is a "strong dependence, both physiologic and emotional, on alcohol or some other drug. True addiction is characterized by the appearance of an abstinence syndrome of organic origin when the drug is withdrawn" (Campbell, 1996). The DSM-IV defines substance abuse as follows:

> A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:
> 1. recurrent substance use resulting in failure to fulfill major role obligations at work, school or home…
> 2. recurrent substance use in situations in which it is physically hazardous…
> 3. recurrent substance-related legal problems
> 4. continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (pp 182-183)

Throughout the period covered by this study there was no uniform screening, prior to admission, for substance use disorders done with individuals who present themselves for treatment. Some people determine the presence of a substance use disorder for themselves without a referral or assessment done prior to entering the program. The staff psychiatrist usually meets with each individual coming into the program on the day of admission and confirms the substance use disorder during a clinical interview and provides a diagnosis using DSM-IV criteria as well as expresses an opinion as to whether Georgianwood is appropriate treatment. Gambling and sex addictions are not treated at Georgianwood.

Concurrent Disorders: The term 'concurrent disorders' is used in Canada to describe an individual with one or more psychiatric diagnoses as well as a substance use disorder (Health Canada, 2002). In order to effectively treat both disorders some feel it is necessary to know which came first (i.e., did the substance use cause the symptoms of mental disorder or does substance use increase the impairment of mental functioning? Rosenthal & Westreich, 1999). The dominant view is that each diagnosis should be considered a primary disorder (Minkoff, 1989) until a proper assessment can be done after detoxification from the abused substance. Either way, both disorders need to be

treated. Treating both disorders can improve the outcome of the other because prior to treatment it is difficult to determine how each disorder affects the other or to determine which came first. In other words, the substance abuse does not necessarily cause the psychiatric disorder or vice versa. However, the symptoms of one can mask the other and/or exacerbate them, making diagnosis difficult and treatment equally problematic. For example, an individual suffering from depression, but who also abuses alcohol (a depressant), may have the symptoms of depression increased due to use, but regardless of use still suffer from depression.

The DSM-IV classifies substance use disorders on Axis I. Concurrent disorders are any combination of substance use disorders with a diagnosis of an Axis I or Axis II mental illness (Health Canada, 2002). Axis II describes personality disorders and developmental disorders exclusively. The term 'dual diagnosis' is used in Ontario to describe developmental delay with a mental illness. The literature from outside Canada however, often refers to *dual diagnosis* to mean concurrent mental health and substance use disorders. Other terms are also found in the literature in reference to the same combination of disorders such as *comorbidity*, *MISA* (mental illness substance abuse), *MIDAA* (mental illness and drug and alcohol abuse), *CAMI* (chemically abusing – mentally ill), *SAMI* (Substance abusing – mentally ill, and *MICA* (mentally ill – chemically abusing).

Posttraumatic Stress Disorder (PTSD): PTSD is classified as one of the anxiety disorders in the DSM-IV. It is defined by three types of symptoms, which are present at least one month after exposure to a traumatic event (American Psychological Association, 1994). The symptoms include: 1) re-experiencing the trauma; 2) avoidance of trauma related stimuli and 3) over-arousal. A traumatic event, according to the DSM-

IV is one in which there was a direct threat of death, severe bodily harm or psychological injury to themselves or another, which at the time is perceived as a very real threat by the person, and the person reacted with intense fear, horror or helplessness (American Psychological Association, 1994). The traumatic experience is criterion A per the DSM-IV. The three types of symptoms, mentioned above, are criteria B, C and D, corresponding to the three categories. The condition is considered *acute* if symptoms have been present less than three months and *chronic* if symptom duration is longer than three months. The term, *delayed onset,* is used to describe PTSD that develops at least six months after the trauma is experienced. PTSD is an unusual psychiatric disorder because it is one of few with a specific discernable cause, linked to the experience of an external event that is identifiable, whereas most other psychiatric disorders are caused by yet unknown factors. Criterion E refers to the duration of symptoms experienced, and requires them to be lasting for at least one month in order to meet the criterion. There is also a criterion F which involves assessing whether an individual's social or occupational functioning is impaired due to the PTSD symptoms. In other words, if they function well yet meet the criteria A-E they do not have PTSD.

Residential versus Outpatient Treatment

Over the years, much research has been done comparing inpatient and outpatient treatment programs (Miller & Hester, 1986). Generally, inpatient treatment is beneficial for detoxification purposes; however, this is not generally necessary for alcoholism (Miller & Hester, 1986). In the case of the Georgianwood program, participants are expected to have already detoxified before beginning treatment. The process of detoxification is not therapeutic in terms of behaviour change (Miller & Hester, 1986); however, the addiction treatment received is beneficial for change.

Many studies have been done on the length of stay in residential treatment (Timko, Moos, Finney, Moos & Kaplowitz., 1997; Walker, Donovan, Kivlahan & O'Leary, 1983) and on the treatment setting of residential versus outpatient (Miller & Hester, 1986: Timko et al., 1997) and have concluded that the treatment setting does not affect the long-term abstinence of participants. They all, however, found that the amount of aftercare received correlated positively with greater abstinence. No study has clearly shown that inpatient care is more effective than outpatient care (Miller & Hester, 1986). These studies also found that the length of inpatient care (i.e., length of formal treatment) had no effect on long-term abstinence. Initially those in longer treatment programs seemed to have higher rates of abstinence, but over time there was no significant difference in treatment outcomes.

Studies conducted by Miller and Hester (1986) have found that treatment which has the greatest self-direction from the participants tends to have higher rates of follow-up abstinence. Client-centered approaches to substance abuse treatment including harm reduction, offering the client choices and emphasizing support of the individual rather than confrontation, are modifications of standard substance use disorder treatment that may be especially helpful for people with PTSD (Najavits, 2004). Psycho-education, as practised at Georgianwood, generally follows a structured format although the counsellors can tailor the group discussions to the most pressing issues presenting in that particular group. Clients are assigned a primary counsellor to receive one-to-one counselling sessions, if desired. It is unknown whether the staff assigned to do so have counselling training.

The catchment area covered by Georgianwood is quite large, ranging north to Huntsville, south to Cookstown, west to Collingwood and east to Dorset, and includes many very small communities that have no outpatient care available to residents. MHCP

has an outpatient office in Midland (very close to MHCP) but there is no addiction treatment done there. People who are homeless benefit from the stability of treatment in a residential setting and the social worker on staff will aid in finding appropriate housing for them upon discharge from the program. In some cases this means referral to another long-term residential agency for treatment of mental health issues. In the year prior to this study, 12 out of 159 clients were homeless upon discharge from Georgianwood.

Treating Concurrent Disorders

Of those who have ever had a substance use disorder, 53% have also had one or more psychiatric disorders, which is 4.5 times higher than the general population (Ortman, 1997). Rosenthal and Westreich (1999) report the comorbidity as high as 70% in those seeking treatment. It appears that those seeking treatment for addiction are more likely to have other disorders as well (Timko et al., 1997). Individuals suffering from more than substance use problems are more susceptible to relapse because of the interaction between substance abuse and psychiatric disorders. As Ortman (1997) states, "bouts of drinking or drug use inevitably lead to an exacerbation of psychiatric symptoms, and the return of disturbing emotional or mental problems often progress into a relapse into substance use for self-medication" (p. 6). Due to the high risk of comorbidity, people participating in addiction treatment should be screened for other mental disorders (Najavits, 2004: Rosenthal & Westreich, 1999). Georgianwood does have a part- time psychiatrist who assesses clients on intake, and throughout their stay when possible. Clients are sometimes told that they need to be substance free for a greater length of time than the 28-day treatment, before an accurate diagnosis can be made, and some clients do not have a diagnosis of any mental illness upon discharge. Due to time constraints, few clients receive a full psychiatric assessment.

Many people use alcohol to deal with uncomfortable emotions and feelings of anxiety as a form of self-medication, although paradoxically, the use of alcohol is likely to worsen symptoms of anxiety and depression (Moak & Anton, 1999). It has been estimated that 25% of people who are alcoholic use alcohol to treat an anxiety disorder (Meichenbaum, 1998), which is presumably undiagnosed. Cannabis use results in a variety of moods, ranging from euphoria and panic to relaxation and introspection, and it distorts short term memory so that one is unable to focus on any one thing for very long (Stephens, 1999). For those suffering with PTSD symptoms this lack of focus or 'numbing out' is likely the desired outcome. Unfortunately, the nature of substance use is that it tends to cause people to experience more traumas due to the effects on cognitive ability. For example, when using, people will enter unsafe situations to obtain drugs, experience motor vehicle accidents or become involved in criminal activity such as prostitution or robbery to support their drug habit. Drug use can affect moods causing someone to become aggressive or passive. Either extreme can be dangerous if one lives in a potentially abusive relationship.

The problem with treating concurrent disorders is that one disorder can mask the other and diagnosis can be difficult. Symptoms may be caused from substance use or mental illness, and can easily result in a misdiagnosis. Without treating both disorders the clients receive 'ping-pong' therapy, being shuffled back and forth from substance use treatment to mental health treatment and neither problem is appropriately treated (Ortman, 1997). "Treatment must be individualized to the problem severity of the patient, rather than relying upon program-driven or philosophy-driven approaches to care" (Rosenthal & Westreich, 1999, p. 457). This means that both disorders should be addressed in whatever treatment plan is developed. If it is deemed that sequential treatment of substance use and then mental illness is best for the client, then that is the

order in which it is done. The important thing is that both disorders are recognized and the interplay between them is a factor to consider in treating either disorder. In other words, no disorder is treated in isolation. Georgianwood's focus is on addiction treatment and all clients receive the same treatment. There are currently no therapeutic interventions for specific mental illnesses except for psychotropic medications.

It is also difficult to medicate a psychiatric disorder because of the substance abused by the client. Generally clients in addiction treatment will mix substances or may overdose on the prescribed medication or they are non-compliant with taking it and will 'self-medicate' with their substance of choice instead (Ortman, 1997).

Another problem in treating this population is the lack of training on the part of the therapist. Usually a therapist is trained in either addiction treatment or psychiatric disorders (Rosenthal & Westreich, 1999). Each views addiction differently. Addiction workers often view the addiction as the cause of other problems whereas mental health workers may see the addiction only as a symptom of the underlying illness. Neither group views both problems as independent of each other and acknowledges the requirement of treatment for each (Ortman, 1997). One standard treatment will not serve all individuals due to the varied nature of comorbid problems, nor will all require the same time frame. Treatment must suit both the stage of change the person is in as well as suit the problems the person is facing (Rosenthal & Westreich, 1999). "The largest current problem for patients with comorbid substance use and other mental disorders is the lack of integrated treatment systems…that could provide for comprehensive diagnosis and appropriate integrated treatments" (Rosenthal & Westreich, 1999, p. 443).

The Complexity of Treating PTSD

Stress has been linked to symptom severity in those with severe mental illness and has been linked to the onset of such disorders (Mueser et al., 2002). Therefore screening for, and subsequently treating, PTSD will likely result in an improved outcome for treatment of severe mental illness. When persons suffering from PTSD are also using a chemical substance, it may be important to get the substance use under control, if not eliminated, before beginning treatment for PTSD (Ruzek, et al., 1998, p.231). There is disagreement on this point in the literature (Najavits, 2004) and Health Canada (2002) recommends generally for anxiety/mood disorders to treat the substance use first and have that controlled via harm reduction or abstinence before beginning treatment for the mental illness. The exception to this recommendation is with PTSD, for which it is cautioned to begin substance use treatment without also treating the PTSD (Health Canada, 2002). The reason for this is that PTSD symptoms are often the trigger for relapse to substance use, and some substance use treatment causes PTSD symptoms to seem overwhelming and may destabilize the individual. However, it is not necessary for an individual to be abstinent from substance use in order to effectively screen for PTSD (Najavits, 2004), which is often the case in diagnosing other mental illnesses. PTSD requires a specialized treatment plan to deal with the cause of the initial trauma (Keane & Barlow, 2002).

Recent research suggests that PTSD often precedes substance use disorders and that the substance abuse can cause subsequent retraumatization (Dayton, 2000; Mueser et al., 2003). Dayton (2000), describes the "black hole" of trauma as a cycle of physiological arousal, triggering memories related to trauma, and the memories triggering physiological arousal. People fall into this cycle of increased stress and traumatic associations and "sink into early coping strategies, such as…a desire to self-medicate" (p.162). Following

a classical conditioning theory, it is possible that the triggers to use substances change over time following such physiological changes "because substance-abusing individuals with PTSD often drink or use in the presence of traumatic reminders, memories or PTSD symptoms, these trauma-related stimuli may also come to elicit urges to drink or use substances"(Ruzek et al., 1998, p.229). Due to the nature of severe substance use disorders, individuals will often be in traumatic situations in order to receive the drugs they seek, such as prostitution and criminal activity (Mueser et al., 2003; Rosenthal & Westreich, 1999). Approximately 90% of people with existing mental disorders have been exposed to trauma and most have had multiple exposures (Rosenberg et al., 2001). They are more likely to have been exposed to traumatic events that carry the highest likelihood of PTSD; childhood abuse and sexual assault (Rosenberg et al., 2001). It is common in the world of mental illness that PTSD is under-diagnosed and not treated even if diagnosed (Mueser et al. 1998; Najavits, 2004).

The mind is a complex thing, and it is still unknown why some people develop PTSD and others do not, when experiencing the same situation. Approximately 25% of people exposed to potentially traumatic events develop PTSD (Rosenberg et al., 2001). There is evidence of genetic predisposition for the development of PTSD, which may explain why some people experiencing the same event will develop PTSD while others do not (Mueser et al., 2002).

Although PTSD is a mental illness as described in the DSM-IV, it is not usually the mental illness giving rise to the 'concurrent disorders' label given to clients of Georgianwood. Therefore, those with PTSD are likely undiagnosed or misdiagnosed, and suffering from an additional mental illness as well as having a substance use problem. This is not unusual since research has shown that less than 5% of individuals with severe mental illness and PTSD have PTSD documented in their clinical charts

(Mueser et al., 2002, p. 127). The way an individual copes with PTSD can appear as symptoms of other mental disorders making the diagnosis of PTSD even more difficult to reach (Rosenberg et al., 2001). Reactions to the trauma can include a number of different changes such as learned helplessness, anxiety, depression, disorganized thoughts, hypervigilance, alexithymia, and so on (Dayton, 2000). Each of these consequences would require a differential diagnosis in order to identify the presence or absence of PTSD.

Throughout the 20th century, PTSD did not receive much attention, despite the interest of the impact of trauma by Freud, Erik Erikson, Robert Lifton and William Niederland, all of whom studied the aftermath of trauma in the individual's sense of identity throughout the early 20th century. PTSD was not really taken seriously by the psychiatric community until it was added to the DSM in 1980. Since then, accurate assessment of PTSD has been lacking and the symptoms are often misdiagnosed as affective and other anxiety disorders, borderline personality disorder (BPD) and antisocial personality disorder (ASP; Najavits, 2004; Wilson, 2004). "There is a clear gender pattern with males labelled ASP more and females BPD.…In particular BPD is known for being misused in place of a PTSD diagnosis" (Najavits, 2004, p.8). The main difference between borderline personality disorder and chronic PTSD is the absence of a recognizable stressor; that is, traumatic experience, in the patient's history (van der Kolk, 1987 p. 115). Such stressors may indeed exist in the person's history but may not have been uncovered in the psychiatric interview due to the nature of the trauma since people may not disclose childhood experiences because of the shame they feel or because such memories are unclear and/or repressed (van der Kolk, 1987, p.116). If such experiences are disclosed, they may be overlooked by the psychiatrist because "often the connection between trauma and symptomatology is unexplored" (van der Kolk, 1987, p.116).

Women are more likely than men to have experienced childhood sexual abuse and the nature of such abuse is that it is usually more prolonged than physical abuse (van der Kolk, 1987, p.116). It is common for most women who meet both PTSD criteria and have a substance use disorder to have been abused either physically or sexually in childhood (Najavits, 2002).

When children are raised in an abusive or emotionally unstable environment they do not learn how to interpret physical sensations, which is a critical factor in self-awareness and self-regulation to carry into adulthood, and instead they become hyperaroused or numb to their emotions (van der Kolk, 2001). This may explain why BPD is more prevalent in women than men. Childhood sexual or physical abuse has generally been experienced in 60-75% of people with the diagnosis of BDP (Meichenbaum, 1998). Meichenbaum (1998) states that PTSD is a more appropriate label for those with BDP "given the victimization experience of many BDP patients" (p.465). Meichenbaum (1998) poses the theory that a person develops their personality style as a coping mechanism in response to current situations and then get 'stuck' in that way of being. He says "it is not clear that clients with so-called different personality disorders hold different beliefs, engage in different thinking styles, and the like" and that "one should maintain a critical stance toward the 'hype' surrounding personality disorders" (Meichenbaum, p. 468, 1998).

In general, research has shown that men who experience physical or sexual abuse also tend to be under assessed for PTSD (Najavits, 2004). This may be due to the cultural image of the masculine role and also because of the shame and/or self-blame experienced by victims of abuse: "PTSD is often undiagnosed in cases in which secrecy or stigma prevent recognition of the traumatic origins of the disorder" (van der Kolk, 1987, p.117). The expression of emotional states by men and women are largely socially

conditioned. In a Western society men can freely express anger to cover other emotions whereas women mask emotions through grief (Haldane, 1984). This may explain why women feel more able to report PTSD symptoms whereas men will not be 'soft' and acknowledge emotional wounds.

Without any treatment, rates of PTSD decline over time, but in human-caused events the decline will not necessarily be a return to normal functioning (Meichenbaum, 1998). Unfortunately, most people seeking substance use treatment at Georgianwood have experienced traumatic events of the human-caused variety.

The good news about PTSD is that it can be effectively treated (Mueser et al., 2002, p. 126; Najavits, 2004: Rosenberg et al., 2001) but the key to such treatment is accurate and timely diagnosis. Simply providing a diagnosis alleviates much anxiety caused by the symptoms because people realize they are not 'going crazy' but have developed symptoms in reaction to an event (Najavits, 2002). Many symptoms are not obviously related to trauma. For example, the prevalence of intense anger expressed or feeling unable to love one's family are not obviously related to witnessing a car crash or being raped. Because of the interplay between trauma, substance use and severe mental illness, all three concerns need to be addressed in treatment. Current best practices suggest that concurrent issues receive integrated treatment (Health Canada, 2002; Najavits, 2004: Rosenthal & Westreich, 1999). Effectively this can mean treating one disorder before another, for example, controlling or reducing substance use before assessing for mental illness, or treating the mental illness before addressing the substance use problem. Whichever disorder is considered to cause the most impairment in functioning of the individual is to be treated first if it is not practical to treat all disorders concurrently. However, it does not mean treating one disorder in isolation of the others (i.e., ignoring its presence). When PTSD is present, it is believed that the risk of substance use relapse

is reduced significantly when the traumatic events of the person's past are addressed early in treatment of substance use disorders or addressed once stable sobriety is achieved (Rosenthal & Westreich, 1999). Either way, the trauma must be addressed in order to reduce the risk of relapse. When persons suffering from PTSD are also using a chemical substance, it can be important to get the substance use under control, if not eliminated, before beginning treatment for PTSD (Ruzek et al., 1998, p. 231). However, becoming abstinent from substances can worsen some PTSD symptoms if PTSD is not treated (Najavits, 2002). Some recommend that the substance use be controlled before beginning any trauma treatment because talking about the traumatic events themselves can trigger people to use substances to cope with the feelings that arise (Dayton, 2000). Health Canada (2002) recommends concurrent treatment of PTSD and substance use which can involve harm reduction to control substance use, if not eliminate it. Harm reduction refers to attempts to minimize the harm that comes from using substances (e.g. by decreasing use; using clean needles; switching from heroin to methadone). Unfortunately this is not an option at Georgianwood since it cannot practice harm reduction and allow controlled access to substances. If PTSD is present, and diagnosed in clients, such diagnosis can be beneficial in the treatment of substance use because it "allows them to view their addiction in a new light, as a way to cope with overwhelming emotional pain…They may feel les alone, less "crazy" and more understanding of themselves" (Najavits, 2004, p. 3). This does not mean it has to be treated before substance use, but it needs to be acknowledged as present and if not addressed directly, be addressed subsequent to the substance use disorder being under control.

There are effective treatments for PTSD which include exposure therapy and cognitive-behavioural therapy (CBT), as well as four treatment models which are specific to PTSD and substance use: Najavits' *Seeking Safety*; Dansky & colleagues' PTSD and

cocaine dependence treatment; Triffleman and colleagues' substance dependence PTSD therapy and Donovan and colleague' *Transcend* program. Mindfulness training is also recommended to be done along with other forms of therapy (Van der Kolk, 2001).

Exposure therapy is a relatively brief therapy of nine to twelve sessions in which the client is exposed to the traumatic experience through talking about memories of events and exploring triggers that exacerbate PTSD symptoms. It can involve various physical cues such as visiting the place the trauma occurred and working through the anxiety induced by the exposure. The therapy seeks to create the feelings of anxiety in a safe manner so that the individual can become aware of the feelings and thoughts and also observe them subside. Through this exposure the person is eventually able to think about the event without having the spiral of emotional reactions to the thoughts. It seeks to build greater awareness of somatic and cognitive reactions to triggers and thereby reduce the effect of such triggers. This therapy is widely used with successful results.

Cognitive-behavioural therapy is a widely used, manualized treatment that treats many different disorders such as depression, anxiety disorders including PTSD, and substance use disorders. It may include exposure therapy in treatment of phobias or anxiety disorders.

The treatment methods specifically designed to treat both PTSD and substance use disorders draw on various combinations of exposure therapy, CBT, client-centered empathic counselling, relapse prevention and psychoeducation; and those which have been empirically tested are mentioned here. The treatment developed by Dansky and colleagues' is specific to cocaine dependence and PTSD. This is a 16 session program which combines exposure therapy, relapse prevention techniques and psychoeducation about PTSD and cocaine dependence (Najavits, 2002). The model developed by Triffleman and colleagues' includes *in vivo* exposure therapy for PTSD (Najavits, 2002).

Donovan and colleagues' developed the *Transcend* program specifically for war veterans in a residential hospital setting. This is a 12 week program that incorporates CBT, exposure therapy and twelve-step theories and requires substance use treatment to be attended concurrently but it is not part of the *Transcend* program (Najavits, 2002).

The program developed by Najavits, *Seeking Safety*, is a cognitive-behavioural therapy developed specifically to treat PTSD and substance use disorders, which follows a manual. It has been empirically researched with positive outcomes in many studies (Hien, Cohen, Litt, Miele & Capstick, 2004; Morrissey et al., 2005; Zlotnick, Najavits & Rohsenow, 2003; and others). None of these studies have taken place in a residential addiction facility but have involved women in jail, low-income urban women, veterans, outpatient mental health service consumers and adolescent girls. All found that those receiving the Seeking Safety therapy improved significantly in terms of reducing PTSD symptoms and some found relapse rates for drug use also decreased. An interesting aspect of this group program is that there is no talk of trauma (i.e. no exposure therapy). Seeking Safety is broken into 25 topics for group discussion and education, designed to build emotional safety for the individual. Seeking Safety is designed to motivate clients by using empowering language, and provides a formal structure for treatment that can aid those with PTSD to feel comfortable, since they often feel overwhelmed and out of control in daily life (Najavits, 2002). The treatment for both substance use and PTSD is facilitated by the same clinician, integrating the treatment received, which is in line with best practice recommendations.

Recently (2001) Van der Kolk suggested phase oriented treatment of complex PTSD with mindfulness training being involved in the first of six phases. Mindfulness is described as the process of fully experiencing one's life as it is unfolding moment by moment with full, non-judgemental awareness of thoughts and feelings. Mindfulness

training, such as yoga and meditation, helps people become aware of what they are feeling physically and to observe their emotions without being caught up in them. Yoga and meditation enable one to increase self awareness and aids people in being more aware of their physical, mental, emotional and spiritual aspects of self. This is useful for addiction treatment as well as PTSD treatment. "Traumatized patients need to learn to uncouple trauma-related physical sensations from reactivating trauma-related emotions and perceptions. They need to learn to distinguish between their internal sensations and the external events that precipitated them." (van der Kolk, 2001, p.19). Van der Kolk was recently (2006) quoted as saying that he would not treat a trauma survivor who is not also practising yoga (McGonigal). "Knowing what one feels and allowing oneself to experience uncomfortable sensations and emotions is essential in planning how to cope with them…Being 'in touch' with oneself is indispensable for mastery and for having the mental flexibility to contrast and compare, and to imagine a range of alternative outcomes aside from a recurrence of the trauma" (van der Kolk, 2001, p.17).

Mindfulness-Based Stress Reduction (MBSR) is an eight week program, developed by Jon Kabat-Zinn in 1979 (Kabat-Zinn, 1990) which follows a very structured format designed to build mindfulness in daily living. It involves teaching yoga and meditation, completion of homework and group discussion within meetings held once a week. The homework consists of developing a mindfulness practice (using CD's with recorded instruction) and written observations of various aspects of self. It is highly successful in treating anxiety disorders and has been empirically researched with successful results in treating many disorders including anxiety disorders (Miller, Fletcher & Kabat-Zinn, 1995; Kabat-Zinn et al., 1992). The program is usually facilitated in an outpatient setting and in practice MBSR is usually contraindicated for both PTSD and severe and current substance use disorders (Saki Santorelli personal communication, Feb 2006); however, I

was unable to find evidence to support this contraindication in the literature. In practice it is assumed that the increased self-awareness can cause destabilization in either disorder. There is a significant absence of literature with respect to PTSD and mindfulness or meditation. Van der Kolk (2001) also laments this absence of literature and seems to imply it is due to the lack of pharmaceuticals used in treatment and the money available to research such. He also questions whether people avoid studying trauma which is human inflicted and seems to indicate that researchers just aren't willing to examine the dark side of human behaviour and study the effects of child physical and sexual abuse on personality development and so on (van der Kolk, 2001). The literature that does exist indicates mindfulness training to be of great benefit in reducing symptoms associated with PTSD (Cayoun, 2004; Wolfsdorf & Zlotnick, 2001). People completing the MBSR program (not necessarily suffering with PTSD) report many benefits including: reduced symptoms of anxiety; decreased frequency and intensity of panic attacks; decreased symptoms of depression; better sleeping habits; and increased emotional awareness (Miller et al., 1995; Roth & Creaser, 1997).

Meditative therapy, which is a combination of both meditation and psychotherapy, has been used effectively to treat people with PTSD due to wartime events or childhood abuse (Emmons & Emmons, 2000).

Addiction treatment can be the beginning of a healing journey but if PTSD is also present and untreated, relapse is likely. To recover from both addiction and PTSD one needs help in that area as well (Ortman, 1997; Rosenthal & Westreich, 1999). Since relapse is highly likely if emotional issues are not being dealt with (Ruzek et al., 1998), and the population abusing substances are more likely to experience trauma, it is extremely important that those with PTSD be given referrals for treatment if it is not addressed in substance use treatment settings. There are few outcome studies available

that have examined the effectiveness of treating PTSD and substance use disorders, but those that do exist indicate that people who received integrated treatment not only had reduced PTSD symptoms but were more likely to be abstinent at a 6-month follow-up and drink less at the 9-month follow-up, but after 9 months there was no difference in relapse rates from the group that received only substance use treatment (Ouimette, Brown & Najavits, 1998).

Background

Researcher's Interest

My initial contact with Georgianwood was through volunteer work in 2002. Then since 2003 I have been employed part-time, primarily teaching yoga and facilitating a stress management group. Prior to beginning this research, it became evident to me that many individuals at Georgianwood may be suffering from PTSD. It was not uncommon to hear clients speak of events such as severe abuse, both physical and sexual, witness to or involvement in accidents, prostitution to support substance use, and involvement in illegal activities using weapons when they were in danger themselves of physical harm or they were causing harm to another person. It was common for them not to have received prior treatment for the psychological effects caused by such events. It seemed relatively common for the men seeking treatment, as well as the women, to have been sexually abused as children. A few clients were diagnosed with PTSD but then were not treated for it. Most seem not to have been diagnosed. This may be due to the nature of the trauma and the difficulty in talking about it. Some clients have shared with me experiences they say they have never told another person. Often these events were not spoken of because the pain of talking about it has been described to me as "reliving it every time I think about it". This led me to question the prevalence of PTSD in this population and to wonder how treatment for addiction could be improved if such trauma were addressed during treatment. "The reality is that both PTSD and SUD (substance use disorder) tend to be under-diagnosed, according to empirical studies, and it remains a public health concern to increase valid assessment of them" (Najavits, 2004, p. 468, brackets mine).

Setting

The Georgianwood Concurrent Disorder Program is a four-week intensive group therapy program in a residential setting at the MHCP, primarily treating individuals suffering from concurrent disorders. The program is fully funded by the Province of Ontario. Treatment focuses on psycho-education of substance abuse and relapse prevention and employs limited cognitive behavioural therapy techniques. The importance of spirituality, recreation, relaxation and stress reduction techniques are taught as well. The goal of the program is complete abstinence from the addictive substance with no future relapse. The Georgianwood admission criteria state that individuals must not have used a substance for 72 hours prior to entering treatment, however this rule is not enforced and it is quite common for clients to have used within the 72-hour period prior to admittance and to openly admit this to staff.

Long-term staff trains new staff, which means change in curriculum is difficult to achieve. The program evolves as new management replaces the old. This has not always been a step forward. In the past, the retirement of one program coordinator meant Georgianwood became non-medical and no clients were admitted that needed medications or medical treatment. With the current program coordinator, medical attention has increased and the goal of accepting clients with concurrent disorders has been achieved.

The proposal of this research resulted in a temporary use of screening tools to assess for substance use problems. Those instruments are no longer used by the program. Since then a mental health screener and the Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) is done with every client prior to admission, but there is still no uniform screening for substance use. It is deemed not necessary to screen for substance use since all clients are seeking addiction treatment and it is accepted that

people seeking such treatment are being honest about the problems they have. According to the data maintained by program staff, approximately 25% of clients in 2004 had seen an outreach worker employed by the program prior to entering treatment. The outreach worker travels to other agencies to meet with potential clients and determine whether Georgianwood is appropriate, and if not, refer them elsewhere. These workers do extensive interviewing and counselling with those clients they see, but no common screening tools were used throughout the time period covered by this study. Outpatient treatment is often recommended before residential treatment, however, given the rural communities being served, outpatient treatment is not always possible. In these cases the individual will attend Georgianwood due to the lack of alternatives. The rest of the clients entering treatment are referred by other agencies and the procedures they use for such referrals are unknown. Extensive interviewing may be done using screening tools, or the referral may be coming from a detox centre in which the staff feels the next step for the individual is residential treatment. Some clients are homeless and the residential treatment setting is recommended in order for them to have a stable environment to reduce risk of relapse during initial treatment, and for housing to be arranged from a supportive environment. Clients coming from outside the normal catchment area of the hospital are not seen by any of the program outreach workers due to the geographic location and the program must rely on the recommendation from outside agencies that the client is appropriately suited for the program. It is also possible for individuals to contact the program themselves and enter treatment without any prior service or screening by program staff other than phone conversations. Some clients transfer in from other parts of the MHCP.

Clients generally were required to be over 18 years of age, but special permission is occasionally given to individuals as young as 16 if circumstances indicate this is the best

available option for that youth. The majority of people participating in the treatment are male, white, between the ages of 25 and 45 and the addictive substance is alcohol, marijuana or cocaine. Many have already tried at least one other treatment program but have not achieved their desired result, which is usually abstinence from the substance used. The program can accommodate up to twelve people at one time, ideally with six people in each group, however it will run with a minimum of three and often groups are as large as fifteen or sixteen. It is common for people to leave the program in the first few days so often the senior group is made up of two to four clients by 'graduation day'.

Upon admission to the program, the staff psychiatrist meets with clients for an initial assessment of their substance use disorder and reviews their diagnosis of mental illness. The assessment of mental illness may continue throughout the four weeks and upon discharge a psychiatric consult report may be sent to the client's primary care physician if it is requested by the client. Many clients however, do not have a primary care physician and some return to MHCP to continue treatment by the psychiatrist at Georgianwood.

The residence itself consists of a ward within the MHCP grounds in Penetanguishene, which overlooks Georgian Bay. It is organized much like a nursing home, with two to four people sharing a room; a large recreation area, kitchen, and so on, are all on the ward. Clients are free to leave the building but when they leave the ward they must sign out and then back in upon returning, they must stay on the hospital grounds, and they are required to sleep at the facility. There is a minimum of two staff on the ward at all times, one of which is licensed to administer medications. The facility and grounds of MHCP are smoke free and participants are required to abstain from smoking during their stay in the program however this is not strictly enforced and clients somehow manage to obtain cigarettes while there. Clients enter the program every second

Wednesday, so there are two cohorts at any given time. The full group changes every two weeks as the 'senior' group graduates and a new 'junior' group begins. Group therapy sessions focus on education, self-awareness and social skill development. The two groups attend most group sessions separately but spend breaks, exercise time and evenings together.

After the first weekend of attendance participants may be allowed one four-hour or eight-hour pass if staff feel it is in the best interests of the client. Clients who are found to be using substances while on a pass or on the grounds of MHCP are usually asked to leave the program. All clients are required to attend an Alcoholics Anonymous (AA) meeting outside of the facility on the weekend, which is not part of their pass. The first weekend of the program the clients do not attend the offsite AA meeting, but do for the next three weekends. Any client wanting to attend offsite AA or Narcotics Anonymous (NA) meetings more frequently is allowed to do so and is not supervised while attending. From the outset of the program the goal is to help people learn to abstain from the substance they are addicted to and throughout participation in the program abstinence is a requirement. A baseline urine test is conducted on admission and then randomly after that to ensure clients are maintaining abstinence during treatment.

The final weekend of treatment involves the clients leaving the hospital on an eight hour pass, at the staffs' discretion. Each client develops their own plan of action for making it through the pass time, relapse free, with the help of counsellors and other group members. This 'weekend plan' evolves throughout the program into the 'discharge plan'. The discharge plan is the individual's plan to cope with challenges they will face after completion of the program in which they may be tempted to relapse into the abuse of an addictive substance. Although recent research supports harm reduction, Georgianwood continues to teach that abstinence from all substances is necessary. The program follows

an AA model and requires AA meetings to be attended despite the lack of evidence that AA is a successful treatment for alcohol abuse (Meichenbaum, 1998). However, clients generally seem to be in favour of attending meetings and only occasionally have I heard a client indicate the meetings are not helpful, or that they increase their desire to drink. People being treated with methadone are not admitted into the program.

Participation in the program is voluntary in all cases. Rarely someone with a Not Criminally Responsible (NCR) finding will attend as compulsory treatment. (An NCR warrant refers to a situation where an individual has committed a crime, however, due to mental illness is deemed not responsible for their actions). Generally, clients facing current legal charges are not permitted to attend until court sessions are over; however, this rule is not strictly adhered to.

Georgianwood's Perspective

The history of Georgianwood has, at times, included uncertainty about continuation, but senior management is now very supportive of the plans to change to a concurrent disorder program. For approximately seven years, the program ran as a budget overrun of the hospital because it was not deemed necessary by the Ministry of Health. Once it became an official part of the hospital there has been a continued decrease in the budget of the program and with the constant need to prove itself worthy of funding, Georgianwood needs to show its effectiveness. This research could be useful to propose why increased funding is needed to improve treatment, or it could be used to show how the program may be enhanced for a large part of the population served.

In the past, Georgianwood has not been considered part of the Mental Health Centre Penetanguishene despite being located on the grounds and funded through the hospital budget. Effectively this meant clients were denied access to both recreational

services and medical emergency attention. Doctors have actually refused to come when called. This too has changed since the program moved its housing to one of the main hospital buildings rather than being located in a separate building. There is little funding offered for continuing education of staff. However, they have recently hired a part-time psychologist whose sole role is to oversee an overhaul of the program and transform it into an integrated concurrent disorder treatment program.

Research Questions

The initial inquiry process led to many questions that may be of use for research purposes. The long list was narrowed to the following questions with the hope that they were the most useful and informative answers to have at this time.

In order to determine if PTSD is really a problem within the concurrent disorder population it was necessary to determine the prevalence of it. Hence the question:

1. What is the prevalence of PTSD in the clients of Georgianwood?

While discussing this study with Dr. Kim Mueser, he suggested that all participants also be screened for substance use in order to eliminate the possibility of it being questioned later. It can easily be assumed that everyone presenting for addiction treatment has a substance use problem, however, without verifying such it is not possible to make the conclusion. So I have included the next question:

2. To what extent do the clients presenting for addiction treatment have a substance use problem?

In order to determine whether the assessment for PTSD had any effect on treatment of individuals after admission, if only to help diagnose the illness, I asked:

3. To what extent do clients receive a clinical diagnosis of PTSD if they have been positively assessed for such?

Knowing that PTSD is often misdiagnosed or occurs concurrently to other mental illnesses I wanted to gain some insight as to whether those with PTSD presented for addiction treatment without a mental illness diagnosis, or to explore the possibility of misdiagnosis. This led to the next question:

4. To what extent do clients meeting PTSD criteria also have a diagnosis for another mental illness?

In order to determine if the process of PTSD assessment had any effect on referral for treatment upon discharge from Georgianwood I wanted to examine the referral process and asked:

5. To what extent do clients receive a referral for future treatment of PTSD upon discharge if they are diagnosed with PTSD?

And finally, to consider whether the Georgianwood program curriculum is effective for those clients who have PTSD I have asked:

6. Does the curriculum of the program include treatment of PTSD?

My goal in conducting this research was to provide knowledge for this program to be as effective as possible, thus helping more people in a significant manner. I wanted to bring increased awareness of the difficulties in treating substance use without treating other issues, such as PTSD, which are likely present. I also hoped that more attention will be paid to PTSD specifically in the mental health profession. Ideally treatment for it will become common and easily accessible. I expect that clients misunderstand the effects of experiencing trauma and that staff underestimate its prevalence. Hopefully this research will help bring awareness to the problem of PTSD and lead to greater resources for those affected.

Method

Participants

A convenience sample including one full year (June 2004 – June 2005) of the program participants were included. The total number of clients admitted to Georgianwood during the period was 169 with an average of six people entering treatment every other Wednesday. However, there were 23 admissions not assessed for PTSD and not included in this study. The reasons for not assessing them are shown in Table 1.

Table 1

Reason Georgianwood clients were excluded from the study

Reason for not assessing	Number of clients
left against medical advice prior to assessment	6
left program early due to inappropriate behaviour	6
admitted more than once in the time period	2
incomplete assessment due to time constraints	1
functionally unable to complete assessment	4
time constraints of researcher	4
total not assessed	23

The remaining number of clients involved in the study is 146. This final group is comprised of 91 (62%) men and 55 (38%) women. The group has an age range of 16-77 years with an average age of 37 and median age of 36.

Measures

The screening tools described herein were part of the routine admission procedure from June 2004 until November 2005 and were included as part of the clinical record of

the client. The interviews were conducted on the Wednesday of admissions or soon afterwards (generally within a week of admission) depending on the availability of clients and researcher. It is important to note here that the researcher was acting as the clinician for the program when this data was collected. All results from the following assessment tools were provided to the researcher without identifying information, thus ensuring confidentiality to clients.

Brief History Questionnaire. The Brief History Questionnaire (BHQ: Schnurr, Vielhauer, Weathers & Findler, 1999; see Appendix A) is a one page tool used to identify exposure to traumatic events that would qualify as severe enough to be used for a DSM-IV diagnosis. Corresponding to Criterion A in the DSM-IV for PTSD, the BHQ lists ten events and the individual is asked whether or not they have experienced the event with a series of questions requiring only yes or no answers. If they have experienced it they are then asked whether they were seriously injured and whether they believed their life, or someone else's, was in danger at the time, again with yes or no answers. Either of those facts is necessary for DSM-IV diagnosis of PTSD. Kappa coefficients for the presence of trauma that met DSM Criterion A were within a range of .74-1.00 except for illness (0.69) and "other life-threatening events" (0.60; Wilson & Keane, 2004).

PTSD Checklist - Stressor Specific Version. If such trauma is present, as per the BHQ, the PTSD Checklist – Stressor Specific Version (PCL-S; Weathers, Litz, Huska & Keane, 1994; see Appendix B) was administered to determine the likelihood of PTSD. The PCL-S is completed in reference to a specific incident in which trauma was experienced. It takes less than ten minutes to complete for one event specified. The response format is a 5-point Likert scale. This tool has seventeen questions that correspond to the symptoms listed in the DSM-IV for PTSD. Items 1 to 5 correspond to re-experiencing symptoms, Criterion B per DSM-IV. Items 6 to12 correspond to

numbing or avoidance symptoms, Criterion C per DSM-IV. Items 13 to 17 correspond to hyper-arousal symptoms, Criterion D of DSM-IV. Items are scored on a scale of symptom severity. A score of 3 or more is considered to show significant presence of a symptom. The person is considered likely to be suffering from PTSD if a score of 3 or more is indicated on one symptom from questions 1 to 5, three symptoms from questions 6 to 12, and two symptoms from questions 13 to 17, corresponding to the criteria of the DSM-IV sections. The date the traumatic event occurred is recorded on the PCL-S, and ensures that criterion E is met; that symptoms occur beyond one month of occurrence of the event.

Although the CAPS (Clinician Administered PTSD Scale) is considered the best tool to effectively diagnose PTSD, the PCL-S has been shown to correlate well to the CAPS with 83% – 93% agreement in diagnoses (Mueser, et al, 2001). The CAPS takes approximately 1-2 hours to complete via an individual interview and due to the time constraints involved with the process of admission to the program it is not feasible to spend so much time with each individual. The PCL-S has been shown to have high test-retest reliability (0.96), and high internal consistency (0.97, Commonwealth Department of Veteran's Affairs, 2003; Mueser et al, 2001, Keane & Barlow, 2002). This measure has been chosen due to its effectiveness and the ease with which it can be administered.

Dartmouth Assessment of Lifestyle Inventory. The Dartmouth Assessment of Lifestyle Inventory (DALI, Rosenberg et. al., 1998; see Appendix C) is a substance use screening tool. It assesses for use of alcohol, marijuana, and cocaine. These three substances are the most often used by clients entering Georgianwood. This screening tool was developed with concurrent diagnoses in mind (Rosenberg et al., 1998). The DALI has high test-retest reliability with a kappa coefficient of 0.90. The DALI includes two scales, one for alcohol abuse and one for drug abuse. A score of two or

higher on the alcohol scale is considered to indicate a high risk of current alcohol use disorder and a score of negative one or higher on the drug use scale indicates a high risk of cannabis and/or cocaine use disorders.

Drug Abuse Screening Test. The Drug Abuse Screening Test (DAST, Skinner, 1982; see Appendix D) provides a quantitative index of problem severity with higher scores indicating a higher likelihood of drug problems. It consists of 28 questions with yes/no answers. The DAST has good internal consistency with an alpha of 0.92.

Procedures

Assessment of Drug Use. All research participants were screened for extent of substance use in order to answer the question 'To what extent do the clients presenting for addiction treatment have a substance use problem?

Since the participants were people assumed to have concurrent disorders it was necessary to verify the substance use problem for the study. The substance use screening was completed first and allowed the client to become comfortable talking before beginning the trauma assessment, which was done in the same interview. The DALI and DAST were temporarily implemented into the program at the same time as the BHQ and PCL-S. Clients were asked what their substance of choice is, and this determined which tool would be administered. For clients who primarily use alcohol, cocaine, and marijuana the tool used was the DALI. For clients whose drug of choice may be a prescription drug or other street drug, the tool used was the DAST. This information was recorded using client casebook numbers without any identifying information on notes taken.

Trauma Assessment. In order to answer the question 'What is the prevalence of PTSD in the clients of Georgianwood?' it was necessary to complete a trauma

assessment. This was done as part of the intake procedures of Georgianwood. Clients were individually interviewed using the Brief History Questionnaire. The BHQ is a self-report scale that takes up to 15 minutes to complete. However, at Georgianwood it was administered in a private interview format to ensure it was correctly completed because it is not unusual for people with concurrent disorders to have a short attention span or confusion when presenting for treatment (Rosenberg et al., 1998). Many clients also have literacy problems according to the counselling staff. No data has been gathered on the prevalence of literacy problems however. The privacy of such an interview hopefully helped ease any tension that may have existed in answering questions of such a sensitive issue. By directly reading the questions exactly as worded, and asking them in the same manner with each participant, the data collection was as uniform as possible for all participants, thus helping to reduce any bias that may exist.

Although this part of the research is designed to gather quantitative information, I was dealing with very real people, with very real and often disturbing experiences that cannot be ignored as they evoked emotions in me and in them while they answered the questions being asked. I needed to be aware of my own countertransference while talking to clients in order to limit any effect I may have had on the information they shared with me (Najavits, 2004). For this reason it was important to read questions exactly as worded and to ask only for clarification of answers rather than any additional information. It was also important to be aware that simply asking questions about trauma can evoke intense emotions in individuals, which can destabilize them if they are asked for details, and thus only asking for information that was needed was imperative at the assessment stage (Najavits, 2004). When this tool was administered, people often went into detail of the event. Clients that started to give such details were redirected to keep information to a minimum by only answering the questions, with the explanation given

that such information disclosure can sometimes be upsetting and to suggest they speak with their primary counsellor if they would like more one-to-one counselling about the issues raised in the interview. Despite this caveat, most people kept talking about their experiences and seemed to appreciate sharing such intimate experiences with someone who just listened with empathy.

If the BHQ results indicated that an individual had experienced an event that meets Criterion A as per DSM IV, the PCL-S was completed. Throughout the collection of clinical data used in this study I was the only person administering the PCL-S. No special training is required to do so since it is normally a self-report questionnaire and the questions are easy to understand. It was administered in an interview format to help ensure clients understood the questions, and that it was properly completed. By reading the questions exactly as they are worded each client was treated in the same manner and any influence over how a client answers a question was minimized. Clients who did not understand the questions asked for clarification and the intent of the question was explained or verified to them. If the BHQ indicated more than one significant traumatic event in the past, then the PCL-S was completed for each event and thus it may have been administered several times in the interview. The interviews were conducted in a client-centered manner, with empathic listening. I believe this helped clients feel comfortable to talk about past trauma and to answer questions honestly rather than be ashamed to admit such experiences. "Patients often fear being judged, treated harshly or misunderstood…paranoia is also commonly associated with both disorders [PTSD and substance use] and may increase distrust of professionals and systems" (Najavits, 2004, p.481, brackets mine). The interviews ranged from 15 minutes to over an hour, depending on how many events the individual had experienced as per the BHQ. Qualities required of the interviewer for such questions include kindness, non-judgemental,

empathic, comfort in asking 'taboo' questions and allowing the client to have power (Najavits, 2004). My training in psychotherapy was client-centered in nature and I feel very confident in such skills mentioned.

Results from the completed tools were noted using client casebook numbers and kept with research notes. There was no identifying information taken with these notes. All clients who met criteria for PTSD were told to discuss the results with the program psychiatrist. At that point I explained what PTSD is, and informed them that there is treatment for it available.

Diagnosis Review. To answer the question 'To what extent do clients receive a clinical diagnosis of PTSD if they have been positively assessed for such?'; the diagnoses of clients who test positively for the likelihood of PTSD was examined to determine if PTSD had already been diagnosed by either the staff psychiatrist or an external psychiatrist/psychologist prior to treatment at Georgianwood. This information was provided to the researcher from the Georgianwood program without requiring review of files, and given with permission from both the hospital ethics committee and the university ethics review board, using client casebook numbers and no identifying information attached. Without a formal diagnosis the client will not likely be aware that they have PTSD and seek treatment for such. If, during the interview, clients mentioned they already had a PTSD diagnosis prior to admission it was noted using client casebook numbers.

Other mental illness diagnoses, for all participants, were also examined in order to answer the question, "To what extent do clients meeting PTSD criteria also have a diagnosis for another mental illness?" This information was provided in the same manner as data mentioned above.

Review of Referral Process. I had initially proposed to follow-up those individuals who were assessed positively for PTSD or diagnosed with it to determine if they were referred to further services for treatment. However, subsequent to this research being proposed, new information was gained from key informants within the Georgianwood setting. Namely that there was no process to document referrals of any kind, and that most clients upon discharge are not referred to further treatment. Since it was not feasible to pursue it systematically, no work was done with respect to answering the question "To what extent do clients receive a referral for future treatment of PTSD upon discharge if they are diagnosed with PTSD?"

The documentation process for referrals to external sources is currently being developed by the program, and throughout the period covered by this study to the present time there was no systematic way referrals were documented, if at all.

Referrals are sometimes organized with the help of the social worker or psychiatrist, or clients call the program staff and ask for help to find services, and these referrals may not appear in the clinical record. It is unlikely clients call asking for a PTSD treatment referral since most have not been diagnosed with it. Time constraints involved with collecting the data do not allow for a follow-up discussion with clients to determine whether they received any referrals that were useful for them and to get feedback on how they are progressing.

Curriculum Review. To answer the question 'Does the curriculum of the program include treatment of PTSD? I had proposed reviewing the written material and having staff complete questionnaires to determine if PTSD was treated. However, in conversation with key informants it became evident that PTSD was not part of the curriculum of the program and therefore this was not done as part of the study. There is no program manual which can be reviewed to determine what treatment may affect PTSD

symptoms. Curriculum was originally set by the prior staff over the past thirty years, and was not designed by the counsellors currently employed. However, current counsellors have adapted their own materials and do not necessarily share them with others, so an examination would require reviewing material with each addiction counsellor. There is no clinical supervision of counselling staff so it is unknown how much uniformity there is throughout the program. It may differ significantly from one counsellor to another or it may be fairly consistent. Regardless, PTSD is not addressed in treatment.

Researcher's Role

My contact and familiarity with the program was of benefit to the data collection since I am familiar with the intake process, the staff, and the general functioning of the unit. My personal involvement with the clients is usually limited to teaching yoga and stress management, occasional 1:1 sessions, and lots of casual conversation. Often clients tell me things they say they don't talk about with other staff. It appears they trust me and feel comfortable to be open with me. Private interviews and my therapeutic relationship with the clients hopefully helped to create a safe space for clients to speak freely and to reduce or eliminate distrust in the nature of the interview.

It was, and continues to be, difficult for me to hear of the trauma people have experienced without evoking some sort of emotion in me, depending on the nature of the trauma inflicted. I often find myself counselling the aggressor of the trauma as well as a victim. I don't think this has hindered my ability to conduct interviews because thus far in my counselling career I have been able to have empathy for those who caused extensive trauma to others and who hold that knowledge with such guilt and shame that it has caused trauma in them. We are all human, and I believe we act out of either fear or love. For this reason I can empathize with those who hurt others, because the pain they

suffer as a result, is just as real as the pain they have inflicted on others. For example, listening to a former bike gang member talk of his role in the violent harm he inflicted on strangers at the command of others and his persistent nightmares of such behaviour; the spousal abuse of women talked about by men in treatment; the child abuse inflicted by women in treatment who want to regain custody of such children. Luckily, I have support available to me to discuss such matters that may affect me personally and to limit the effect, if any, they may have on the data collected.

Results

The Brief History Questionnaire (BHQ) was administered to all 146 clients to determine whether a traumatic event was experienced that met criterion A of the DSM-IV for PTSD. Recall that criterion A refers to the experience of a traumatic event such that one thought their life was in danger, they were seriously injured or they witnessed such events experienced by others. Table 2 provides a summary of the type of traumatic events reported on the BHQ's administered to the study group. Only events which qualified for criterion A of the DSM-IV are shown. In other words people may have reported more events but if they did not indicate they experienced intense fear for their life or someone else's, helplessness, or serious injury they are not included here.

There were 15 (10%) people that did not meet criterion A. In other words, they reported no experience of a traumatic event in their past. This sub-group consisted of 12 men and 3 women. For this group of 15, there was no PTSD Checklist - Stressor Specific Version (PCL-S) completed since there was no trauma to report on. The remaining group of 131 people is made up of 79 (87% of n=91) men and 52 (95% of n=55) women. Those who reported experiencing a traumatic event typically reported more than one experience that met criterion A of the DSM-IV. A total of 483 qualifying events were reported by the group. Some individuals reported only one event and others had ten or more, with the average number of events experienced per client being 3.7.

The PCL-S was completed for each of the 483 qualifying events reported by the participants. The PCL-S is used to assess the symptoms experienced with respect to a traumatic event. Recall that the criteria refer to the symptoms experienced relating to:

Table 2

Nature of Traumatic Events Reported Meeting Criterion A for PTSD

Type of traumatic Event Reported	Reported Incidence n=131
1. Military service in a war-zone or military service in a noncombat job that exposed you to war-related casualties (for example, as a medic or on graves registration duty)	0
2. A serious car accident, or serious accident at work or somewhere else	58
3. A major natural or technological disaster, such as a fire, tornado, hurricane, flood, earthquake, or chemical spill	19
4. A life-threatening illness such as cancer, a heart attack, leukemia, AIDS, multiple sclerosis, etc.	13
5. Before age 18, physical punishment or beating by a parent, caretaker, or teacher so that: you were very frightened; or you thought you would be injured; or you received bruises, cuts, welts, lumps or other injuries	57
6. An attack, beating, or mugging by anyone, including friends, family members, or strangers	82
7. A situation in which someone made or pressured you into having some type of unwanted sexual contact	63
8. Any other situation in which you were seriously injured, or a situation in which you feared you might be seriously injured or killed	35
9. A situation in which a close family member or friend died violently, for example, in a serious car crash, mugging, or attack	65
10. A situation you witnessed in which someone else was seriously injured or killed, or a situation in which you feared someone would be seriously injured or killed	91
Total events reported	483

1) re-experiencing the trauma; 2) avoidance of trauma related stimuli and 3) over arousal, corresponding to the criteria B, C & D of the DSM-IV. The prevalence of PTSD in the clients attending Georgianwood, during the period covered by this study, appears to be 60% given that 87 people out of the population of 146 met criteria for a diagnosis based on the results of the PCL-S. This number is comprised of 47 (52%, n=79) men and 40 (73%, n=52) women. This sub-group is presented in tables with respect to psychiatric diagnosis and substance use as n=87.

Table 3 indicates the psychiatric diagnoses present in the study population (N=146) and also the diagnosis of the sub-group (n=87) assessed positively for PTSD using the BHQ and PCL-S. This summarizes the diagnoses on record at the time of discharge from the program. I did not have access to clinical charts to confirm the information provided to me by Georgianwood staff. The table also shows the percentage of people with each diagnosis who were assessed positively for PTSD

With respect to the diagnosis of PTSD, there were seven individuals of the original 146 diagnosed with such upon discharge from the program. Of the seven, one individual did not meet criteria as per the PCL-S. The group of 6 (7%, n=87) which were diagnosed with PTSD include 4 individuals who had the diagnosis prior to attending Georgianwood and 2 individuals who received the diagnosis while there. This leaves a possible 81 individuals without a diagnosis.

The most common psychiatric diagnosis in both the PTSD group and the whole study population is depression. Of the 48 people diagnosed with depression 63% of them met PTSD criteria. The next most prevalent diagnosis is personality disorder. Of those 22 people with such a diagnosis 77% were in the PTSD group. The sample populations with diagnoses of schizoaffective disorder, drug-induced psychosis, anxiety, social phobia, panic disorder and eating disorder are small but have high percentages of people

with PTSD. For example, of the four people with an eating disorder, three meet criteria for PTSD and all of those diagnosed with schizoaffective disorder, drug-induced psychosis or anxiety met criteria for PTSD. There were 12 people admitted to the program who had no psychiatric diagnosis upon discharge from the program. Within the group of 12 without diagnoses, 11 reported a history of trauma which met criterion A for PTSD and 8 also met criteria B, C and D for PTSD.

Table 4 indicates the substances abused by the study participants for which they had a diagnosis of abuse/misuse or dependence. All but one of the study participants screened positively for a substance use disorder. All clients in the study had a clinical diagnosis of a substance use disorder for at least one substance. The breakdown of drug use in the population and the drug use in the sub-group that were assessed for likely having PTSD is very similar with alcohol being the main substance of choice, followed by cannabis, poly substances and cocaine. The PTSD group had a slightly higher incidence of using more than one substance with 48% having a substance use diagnosis for two or more substances, compared to 42% of the total population.

Table 3

Psychiatric Diagnoses Upon Discharge of the Sample Population Compared to the PTSD Sub-group

Psychiatric Diagnosis	Total N=146		PTSD group n=87		PTSD group as percentage of total
	number	%	number	%	%
Schizophrenia	3	2.05	1	1.15	33
Schizophrenaform disorder	2	1.37	1	1.15	50
Schizoaffective Disorder	4	2.74	4	4.60	100
Drug induced psychosis	2	1.37	2	2.30	100
Bipolar	14	9.59	9	10.34	64
Depression	48	32.88	30	34.48	62.5
Substance Induced Depression	20	13.70	10	11.49	50
Depression, Psychotic Features	1	0.68	0	0.00	0
Anxiety	9	6.16	9	10.34	100
Social Phobia	9	6.16	6	6.90	66.66
Panic Disorder	6	4.11	4	4.60	66.66
Obsessive Compulsive Disorder	1	0.68	0	0.00	0
PTSD	7	4.79	6	6.90	85.7
Bereavement	1	0.68	0	0.00	0
Adjustment Disorder	8	5.48	5	5.75	62.5
Eating Disorder	4	2.74	3	3.45	75
Attention Deficit Disorder	8	5.48	4	4.60	50
Conduct Disorder	4	2.74	2	2.30	50
Personality disorder	22	15.07	17	19.54	77.27
Gambling	2	1.37	1	1.15	50
Other	3	2.05	2	2.30	66.66
Total number of diagnoses	178	-	116	-	-
No Psychiatric Diagnosis	12	8.22	8	9.20	66.66
Average number of diagnoses	1.22	-	1.33	-	-

Note. One person diagnosed with PTSD did not assess positively for it using the measures included in this study.

Table 4
Substances Indicated in Population Diagnoses of Substance Use Disorders

Substance Used	Total N=146	%	PTSD group n=87	%	PTSD group as percentage of total
Alcohol	100	68.49	58	66.67	58
Cannabis	39	26.71	26	29.89	66
Poly	37	25.34	23	26.44	62
Cocaine	33	22.60	23	26.44	70
Opiates	11	7.53	6	6.90	54
Benzodiazepine	3	2.05	1	1.15	33
Heroin	2	1.37	2	2.30	100
Ecstasy	1	0.68	0	0.00	0
Hallucinogens	1	0.68	0	0.00	0
Total number of substances	227	-	139	-	-
Average # of substances used	1.55	-	1.60	-	-
Number of people using more than one substance	62	42	42	48	-

The initial proposal for this study included an examination of the referral process for individuals diagnosed with PTSD upon discharge from Georgianwood, but as noted above, no work was done because there is no formal referral process in place.

Discussion with key informants indicated that the curriculum of the program includes an educational segment on mental illness, and as part of that session PTSD is explained along with other illnesses, but there is no specific treatment for it within the program. There is also no treatment for other mental illnesses except for pharmaceutical interventions. As noted above, the program focuses on addiction treatment primarily through psychoeducation. Therefore it would not be helpful to proceed with the questionnaires/interviews as originally proposed since it is known that PTSD is not currently treated.

Discussion

Research Questions

The six initial research questions are restated here with a discussion of results for each.

1. What is the prevalence of PTSD in the clients of Georgianwood?

It is interesting to note that 90% of the study participants (n=131) reported that they had experienced significant trauma in their life. Most people reported more than one traumatic experience. Childhood physical and sexual abuse was common throughout most of the population studied, as well as abusive adult relationships. Often traumas were related to drug use and occurred when people were using drugs or trying to obtain them. Examples of this are the drug dealer being robbed at gunpoint by someone seeking drugs and the study participant happened to be there making a purchase at the same time, or some people (participants) known to be drug users reported being robbed by those seeking drugs. A couple people reported abuse by police officers in which they were picked up while intoxicated, beaten, and then not arrested but 'dumped' somewhere. It was surprising to hear how many men had suffered childhood sexual abuse and had never reported it. Similarly, some women who had been raped by family members or routinely abused sexually had not spoken of it until adulthood, if ever; at times saying I was the first person they had told. Some that did report it were met with accusations and blame for events and they were forced to leave the family home rather than the perpetrator. Often reports of abuse occurred in those who talked of being raised in foster care. It was common for women who had been abused as children to partner with an abusive man, either in marriage or living common-law.

The higher incidence of PTSD in women than in men is in line with current literature which indicates a higher incidence of PTSD in women is the norm (Najavits,2002). This may indicate that women are more likely to have experienced a

traumatic event, and/or they are more likely to develop PTSD as a result. It could also be that women are more likely to acknowledge experiences they have had. It was not uncommon for men to acknowledge severe traumas including extensive childhood abuse, gang related murders and witness of murder and severe physical abuse in jail, and yet when completing the PCL-S would report no symptoms directly related to the trauma (criterion B) or avoidance of it (criterion C) and yet would report high scores on the over arousal symptoms (criterion D). In talking about childhood abuse, men would say something like "well I deserved it because I was a bad kid" and in the same breath would say "I've never touched my kids like that" as if to acknowledge they know they were treated unfairly yet are unable to cope with those thoughts. Men who experience trauma often are ashamed of the experience and/or ashamed that it bothered them due to the stigma attached to the experience or the expression of emotions. This type of guilt and self-blame is common among those with PTSD (Herbert & Wetmore, 2001).

The study did not investigate criterion F per the DSM-IV which is to evaluate whether symptoms have an effect on one's daily life functioning in social or occupational settings. Given that all study participants are heavy substance users and seeking treatment for such, it is an indicator that the symptoms were affecting their lives and substances were sought to aid in reducing the symptoms. No one coming into the program is living in a healthy day-to-day manner and that is why they come for such intense residential treatment. In order to determine this one would have to inquire as to whether trauma or substance use occurred first. It is not uncommon for one who casually uses substances to report that after trauma the substance use increased out of control. As noted in an earlier section, the events of September 11, 2001 are an example of this. Many people who were members of Alcoholics Anonymous and had been sober for years returned to drinking after the events of that day unfolded (Mack & Frances, 2003). Some

people reported substance use began early in life when they were experiencing abuse at home and described it as a way to 'numb out'.

2. To what extent do the clients presenting for addiction treatment have an addiction problem?

All clients involved in this study were screened for substance use/misuse using the DALI or DAST. All of clients presenting for treatment do indeed have an addiction problem, however, one client did not screen positively for having a substance use problem. This is probably due to the fact that the individual had been living in an institution for two years prior to treatment with no access to substances, and screening tools refer to recent drug use and related symptoms. Substance use had been an issue prior to psychiatric treatment and the person was admitted to the program in preparation for return to the community where the substance use may become an issue once again. The individual continues to attend Narcotics Anonymous groups regularly and believes substance use remains a significant life risk, and continues to have a diagnosis of substance use disorder on record.

The examination of substance use diagnoses indicates that the group with PTSD have a slightly higher incidence of problems with more than one substance. This may indicate that people experiencing trauma are more likely to try other substances as a way to cope with symptoms related to traumatic experiences.

3. To what extent do clients receive a clinical diagnosis of PTSD if they have been positively assessed for such?

The group of 87 individuals who were positively assessed for PTSD include only 6 individuals (7%) that received a clinical diagnosis upon discharge. Throughout the period covered by this study, the staff psychiatrist was aware of the clinical information being available in the clinical record. I do not know whether it was regularly reviewed and not acted upon, or whether it was viewed as irrelevant and not reviewed, or dismissed even if it was reviewed. Its presence definitely did not influence the diagnosis of PTSD to become more prevalent. The rate of PTSD being diagnosed did not change significantly from the prior year.

It is possible for a diagnosis to change throughout the course of the program or even several months after being substance free. As noted earlier, there were twelve people admitted to the program who had no psychiatric diagnosis upon discharge from the program. However, this is not too surprising given that the program is primarily one of addiction treatment and clients are not required to suffer with another mental illness to receive treatment, despite the name of the program possibly indicating otherwise. Those people may indeed have a mental illness but the psychiatrist was unable to diagnose it due to the recent drug use of the individual. It is likely that at least eight of them have PTSD but since it is not a diagnosis commonly seen at Georgianwood it is also not surprising that it was not diagnosed.

It is common for those with PTSD to be diagnosed with depression or for both disorders to occur concurrently. These findings correlate to other research which found that the most common psychiatric diagnoses found in people with PTSD are depression and borderline personality disorder (Mueser et al., 1998).

As noted in a previous section, it is not uncommon for people with PTSD to be misdiagnosed with either borderline personality disorder if female, or antisocial personality disorder if male. Without further study on this sub-group it is impossible to

determine whether they have been misdiagnosed, or have both a personality disorder and PTSD, or if the personality disorder behaviour causes them to exaggerate PTSD symptoms and therefore assess positively for PTSD when in fact they do not have it.

If it is the norm to underdiagnose PTSD then it is understandable how the staff psychiatrist at Georgianwood is also not fully investigating the possibility of such a diagnosis. Both men and women have disclosed to me significant traumas they have experienced and say that they either: did not tell the psychiatrist; were not asked about trauma; or they were asked, but the trauma experience was not explored in the interview. It has been surprising to hear of significant abuse a client has experienced and not disclosed unless very specifically asked "have you experienced…?" Often the answer to that question is given with lots of tears and comments such as "I've never talked about this with anyone…Thank you". Possibly talking to a person who is just being supportive allows a more open space for such revelations than talking to a psychiatrist in a clinical interview.

Some women reported the experience of having a therapeutic abortion to have been very traumatic and although the results are not included here (because abortion is not included in the BHQ), they did meet criteria B, C and D for PTSD. At the discretion of the psychiatrist, they could have been diagnosed with such. They reported feeling in a helpless situation and had an abortion despite wanting the child.

4. To what extent do clients meeting PTSD criteria also have a diagnosis for another mental illness?

As seen in Table 2, it appears that the sub-group of clients likely suffering with PTSD are more likely to be diagnosed with an anxiety disorder, depression, or personality disorder. Of the four people with an eating disorder three met PTSD criteria.

These other conditions may arise as a result of experiencing the trauma and perhaps would subside with treatment for PTSD. It is also possible that these conditions exist in addition to PTSD. Regardless of which is true, research has shown that treatment for PTSD, when present, helps to reduce symptoms of other mental illnesses (Meichenbaum, 1998; Ortman, 1997).

5. To what extent do clients receive a referral for future treatment of PTSD upon discharge if they are diagnosed with PTSD?

There is a general lack of services available for mental health treatment in the catchment area of the program, with PTSD being one of the most untreated illnesses, so even if someone is in need of referral there is usually nowhere to refer them. Agencies in Hamilton, out of Georgianwood's catchment area, that specifically treat anxiety disorders do not treat PTSD. There are addiction treatment facilities in Toronto and Guelph that do address PTSD, but there are no agencies within the catchment area to refer clients upon discharge. Given that most individuals who were assessed as being likely to have PTSD did not have a diagnosis of PTSD, it is unlikely they were given any informal referrals for such treatment. Subsequent to this study the program has been working to modify its documentation procedures with respect to referrals.

The need for referrals is great and especially needed for those individuals suffering with a mental illness. Currently, Georgianwood only treats addiction, despite the name of the program indicating otherwise. It is questionable whether it is useful for people with PTSD to participate in addiction treatment without addressing the symptoms of PTSD they face, because they are more likely to relapse into substance use and their PTSD symptoms may worsen (Health Canada, 2002; Najavits, 2002). Upon discharge from Georgianwood they could be referred for further counselling or to self-help work. There

were 32 (22%, N=146) people who did not complete the program either because they were asked to leave or because they did not feel comfortable staying. Within this group there were 22 (69%, n=32) people who met PTSD criteria and another 7 (22%, n=32) who had a significant history of trauma but did not meet PTSD criteria. Three of the people discharged early were diagnosed with PTSD, 3 had no psychiatric diagnosis and the remainder had either depression, personality disorder or anxiety diagnoses. It would seem that the nature of the program does not meet the needs of those with PTSD and referrals to other services, or changing the program curriculum may be more helpful.

Mental illness is still largely untreated except via psychotropic medications. Often these medications take longer than four weeks to reach therapeutic effect levels and clients have no formal follow-up to ensure medications are having the desired effect. Psychiatric referrals would therefore also be of benefit as well as counselling services. Like most of Ontario though, waiting lists are long and many people wait a year or more for care they need now.

6. Does the curriculum of the program include treatment of PTSD?

I initially suspected treatment for PTSD was lacking in the curriculum of Georgianwood which is indeed the case. It is possible that some symptoms of PTSD are being treated indirectly through the program curriculum. As noted above, no work was done to answer this question since it is known that the program does not specifically address PTSD, or any other mental illness, in the current curriculum except for a brief explanation of various mental illnesses in a psycho-education format. The inclusion of mindfulness activities such as yoga and stress management are beneficial to individuals with PTSD since it helps one to become more aware of their physical body as well as their emotions and mental activity (van der Kolk, 2001). By safely experiencing somatic

sensations that may be similar to those experienced during trauma, (e.g. lying on one's back while raped versus lying on one's back in yoga class) clients can begin to bridge between memory and reality rather than become distressed at a similar physiological sensation. The stress management group teaches techniques of relaxation and includes discussion of issues such as personal boundaries, anger, time management and education about the physiological results of stress. People with PTSD often lack structure and do not have a clear sense of self (Najavits, 2002; van der Kolk, 2001). The group structure of the whole program may be helpful for individuals to become more empowered through these discussions and the daily structure of the program.

Some topics covered in the program may exacerbate the symptoms of PTSD or increase the feelings of powerlessness by essentially doing exposure therapy inadvertently and without awareness of emotional repercussions. Examples of these would be letters of forgiveness, or resentments, which are written by clients to individuals from their past or present. Although the letters are not actually sent to these individuals, the clients are required to go through the emotional process of imagining the interaction. Throughout the time period covered by this study, clients were required to describe significant events in their life from childhood to the present within a group setting. There was no follow-up counselling done with the issues raised and clients were at times emotionally unstable afterwards. This practice was discontinued due to this research being done and staff becoming more aware of the effects of 'addiction counselling' on other aspects of the individuals being treated. Individual counsellors may approach reports of traumatic experiences differently in a group setting. I assume there would be empathy and validation for such reports, but it is unknown how such events are treated by staff. It is unknown whether staff have training to deal with issues involved in

trauma counselling, since this is not a normal part of addiction counselling or nursing training

As noted earlier, assessment is part of the program curriculum. This aspect of the program is continually evolving due to the changes being made by the new psychologist. The measures used in this study were temporarily in place, but seemingly were not utilized by staff in order to diagnose or develop treatment plans for clients. The presence of the assessments in the clinical record was not enough to change the view of PTSD with respect to the diagnosis becoming more prevalent among clients. Assessment instruments are useless if they are not going to be reviewed by staff. All clients are discussed in clinical meetings, but to my knowledge the completed PTSD assessments were never part of that discussion. While these tools were being completed in the program I was the only staff member to administer them. Their use was discontinued in November 2005 when the staff psychiatrist began completing the MINI. The BHQ and PCL-S are much more specific than the questions asked in the MINI. The MINI does not have questions as to types of trauma but rather asks a general question "have you experienced trauma?", and it is unknown how much probing is done to determine the significance of experiences. People may need help determining the answer to that with specific examples similar to what are listed in the BHQ. "Of particular challenge is the fact that, quite unique among Axis I disorders, both PTSD and SUD are highly prone to minimization, whether through lying, denial or the shame and guilt inherent in both" (Najavits, 2004, p. 467). I do not know how much the Georgianwood staff members reviewed the completed assessments once they were in the client's chart. After 15 months of gathering this data on behalf of the program, many staff were still unfamiliar with the completed tools in the chart and only a few were trained in administering them.

Suggestions for Georgianwood

Although research is lacking in the understanding and treatment of PTSD there have been recent developments with empirical research to back them (Najavits, 2004; Rosenberg et al.; van der Kolk, 2001). The key to treatment is recognizing and diagnosing the illness to begin with. As noted in the results of this study, most people with PTSD suffer in silence not even knowing they have a treatable illness. Proper assessment for PTSD is the first step in diagnosing the illness. The completion of these assessments created an excellent therapeutic alliance between myself and the client which seemed to encourage the client to come forward and discuss other issues. I would suggest that these assessments remain a part of the program and be completed by each client's personal clinician. Once so much personal information has been shared there is a sense of trust established between those involved. Despite my infrequent appearance on the unit, clients would remember me and seek me out for individual counselling. This may or may not have been due to the intimacy shared through the assessment. There needs to be a standard assessment and review of such to adequately diagnose PTSD. As stated earlier the psychiatrist is now completing the MINI which has a section assessing PTSD, but staff of Georgianwood have indicated that the diagnosis is still not being seen often in the client population. I suggest the implementation of a PTSD assessment, such as those instruments used here, become part of the normal screening procedure of Georgianwood, and that they are required to be reviewed by the psychiatrist. The lack of a formal screening process during the initial assessment provides the opportunity to miss gathering information about trauma experienced as well as symptoms of other mental illnesses. Implementing the screening tools detailed above was a first step in addressing this concern. However, such instruments were only useful if the staff reviewed them with clinical expertise.

I would recommend altering the program curriculum to treat PTSD for everyone, even if they have not been diagnosed with it. The reason for this is that much of the PTSD treatment is education about oneself that everyone seeking substance use treatment can benefit from. For example, boundary issues, self-esteem, and emotional awareness. Anecdotally, addiction counsellors have said "Everyone who comes here for treatment has experienced significant trauma". There is usually a significant history of trauma whether people meet criteria for PTSD or not. There are different ways to alter the program curriculum to treat PTSD. After the experience of trauma, if one develops PTSD, it is possible to reduce or even eliminate the symptoms to the point of normal daily functioning that the individual had prior to the traumatic event (Meichenbaum, 1998; Najavits, 2004; van der Kolk, 2001).

Georgianwood focuses on the treatment of substance use disorders with most clients already having a diagnosed mental illness and pharmacological treatment for such in place upon admission to the program. Since the goal of Georgianwood is to successfully treat substance use, it is imperative that the anxiety caused by past trauma is addressed in treatment to effectively curb the clients' use of substances in the future. Given that the majority of people with severe mental illness and the majority of people with substance use problems experience trauma resulting in PTSD, then it follows that addiction treatment will not be effective until PTSD is addressed therapeutically.

There are many ways Georgianwood could incorporate treatment for PTSD. The option I recommend is to use the program developed by Lisa Najavits, *Seeking Safety*. There are other empirically tested treatments, but they are either substance specific (i.e. cocaine) or population specific (i.e. veterans) or include significant amounts of exposure therapy (Najavits, 2002) and would not be suitable for most of the clients attending Georgianwood since people experienced different traumas and need different types of

exposure, but Georgianwood operates in a group setting. It requires an individualized treatment plan which is not feasible in the Georgianwood setting. It would also risk destabilising other members if it was attempted in a group setting since hearing the experiences of others can be very disturbing. Exposure therapy can be done in addition to the Seeking Safety program with positive results (Najavits, 2002) but because there is no exposure therapy as part of the group, it is beneficial for those without a PTSD diagnosis as well and has been shown effective in addiction treatment and with other mental health diagnoses such as depression or personality disorders (Najavits, 2002). Since most individuals entering Georgianwood have experienced trauma but are either undiagnosed with PTSD or do not meet criteria, it seems like a good fit for treatment. As the name implies, the program strives to teach people how to feel safe in life situations and reduce fear and anxiety in normal daily activities. As seen with this study, childhood traumas are frequent and common. "Under stress, these patients tend to regress to how they felt at a time when the people who were supposed to take care of them actually were the sources of fear and anxiety. They cannot teach themselves how to be safe, because many of them simply lack a baseline of understanding of what that means" (Van der Kolk, 2001, p.20).

Georgianwood is currently run in a group format and the curriculum of Seeking Safety is designed so that each unit is a stand alone group. Individuals can join the group or leave at any time without missing something due to lack of continuity. The sessions of Seeking Safety can be built into the curriculum of Georgianwood with relative ease. The current addiction counsellors would be able to follow the manual and incorporate sessions into what is already being done, provided they receive training in CBT. It is unknown how much training the addiction counsellors have in CBT and this may be a limiting factor in successfully implementing the program into the Georgianwood

curriculum. The program psychologist has proposed closing the program for two weeks in January, 2007 to train the staff in CBT. Because Georgianwood is a 28 day treatment, some of the sessions may need to be eliminated or some days would cover more than one session. There would have to be planning to implement the program to fit Georgianwood's schedule and to incorporate only what clients can reasonably complete in a day. All CBT interventions require homework be done and so there should be time between sessions for clients to complete it. This usually is done over a few days. There is talk of Georgianwood becoming an open-ended program with clients remaining in treatment for an extended period of time, which would be much more suitable to implementing Seeking Safety. If some sort of PTSD treatment is not implemented, the least that could be done is give people the diagnosis if appropriate and refer them to other counselling services.

Another suggestion for Georgianwood is to incorporate mindfulness training such as yoga and meditation more fully into the program curriculum. Georgianwood already has a mandatory yoga class once a week, but the frequency could be increased to encourage individuals to build greater self awareness. An excellent way to incorporate this into the Georgianwood setting is to bring MBSR into the program curriculum. As people face extreme emotions they may seek out relief from substance use. However, given that the program would be done in a residential and highly supportive setting, mindfulness training would likely be beneficial for Georgianwood clients.

The MBSR program has also been adapted to incorporate CBT (MBCT – Mindfulness-Based Cognitive Therapy) in which homework is more intense, completing thought records etc. I believe it would be useful for clients of Georgianwood to receive such treatment, however, facilitators must have a significant amount of time with their own meditation practice (at least three years) and this is likely a limiting factor for the

staff of Georgianwood. The training to facilitate MBCT is expensive and only available in the United States. This is also likely a limiting factor for staff of Georgianwood. However, Georgianwood may be able to hire part time staff with this training to facilitate such a program. In my experience teaching yoga to the clients of Georgianwood, most are receptive to it. Many find it helpful in calming symptoms of anxiety and ask me for referrals to yoga teachers in their home area.

Georgianwood strongly supports the Alcoholics Anonymous model and since meditation is something recommended by AA, it would likely be well received. Currently people are encouraged by AA to develop a meditation practice but are given no formal guidance in doing so and most have misconceptions about what meditation is, so they never begin the practice. MBSR or MCBT teach mindfulness meditation in a structured way that enables individuals to build mindfulness into their daily activities. The structure also lends itself to PTSD treatment since people with the illness typically lack structure in daily life.

Ideally both MBCT and Seeking Safety would be implemented into Georgianwood since they compliment each other and support the personal growth of the individual, reducing the need for continued therapeutic interventions upon discharge.

It is also important I believe, to address the need for treatment specifically related to childhood sexual abuse, especially in men, with a separate group for men only. An excellent resource for this is the book by Rod Tobin, *Alone and Forgotten: The Sexually Abused Man (1999).* This is possible to incorporate into a group format within the program and may be more beneficial than individual counselling because often men feel very alone in their experiences which unfortunately are so common. Their reaction to childhood sexual abuse is different than that of women and therefore needs to be treated differently (Tobin, 1999).

The difficulty in examining the curriculum was partly due to the lack of a program manual which outlines the curriculum in a detailed fashion. It would be useful to staff and clients to have the program curriculum set out in a manual that can be followed by all counselling staff. Currently staff have liberty to facilitate a group as they see fit and cover topics which may not be covered by others. It is possible for 2 people to go through the program and because they are assigned to different counsellors to receive very different treatment. There is also no way to ensure that really useful information is shared between counsellors because individuals have their own materials which they may not share with other counsellors. Materials distributed to clients are not reviewed by other program staff to determine if they are appropriate or if they should be used by all staff. A program manual would also help part-time staff to understand what clients are doing on a day-to-day basis and be able to help with homework etc. It would also be useful to staff who are required to fill in for absent addiction counsellors to have a manual to consult and thereby have a better idea of how and what to facilitate on any given day.

If PTSD treatment does become a normal part of the program it would be beneficial to have clinical supervision for counselling staff not only to benefit the treatment of clients but also to support the staff. Staff can be traumatized vicariously by listening to experiences of others and having a routine outlet for such feelings is beneficial. Staff may not feel comfortable to come forward if it is out of the routine practice of supervision, but if it is the norm to discuss these feelings it will make the process much easier. Help for the helper is of great benefit to clients served.

Upon discharge, clients could be provided with a resource list of therapists, crisis numbers to call, trauma counsellors, and yoga teachers etc. to refer to if they want further treatment.

It is hoped that this study will broaden the understanding of PTSD and improve the treatment of it, if only for the individuals at Georgianwood that slip through the system and suffer unnoticed.

Strengths and Limitations of the Study

As noted above, there was only one person diagnosed with PTSD upon discharge from the program but who did not screen positively for it in the interview. This is a possible weakness in the study or in the screening instrument used, since the screening instrument specifically designed for PTSD assessment did not result in a positive screen. It could be that the individual was not comfortable with the interview, but was comfortable talking to the psychiatrist. Possibly it was an incorrect diagnosis on the part of the psychiatrist, or perhaps the individual was admitted with the diagnosis and the program psychiatrist did not see reason to change it. However, all others with a diagnosis of PTSD were assessed positively for PTSD which indicates that there is less likelihood of a weakness on the part of the instrument used.

It is beyond the scope of this study to determine if PTSD is present if the client is not willing or able to disclose such information. It is also possible that the completed questionnaires indicate PTSD is present when in fact it is not. Without extensive collaboration between myself and the staff psychiatrist on a case-by-case basis such information is unknown. It is important to note here that the completion of the assessment is not a diagnosis, but rather an indicator that is highly reliable that PTSD is present in an individual if a positive screen results. A full psychiatric assessment may or may not confirm the diagnosis.

Because most people presenting for treatment have been heavy substance abusers for a long and recent period of time, it is possible that administering the questionnaires on admission will not reveal traumas experienced due to memory problems associated with drug use (Rosenberg, et al., 1998). If the questionnaires were administered on discharge or after a certain length of sobriety, different results may also be found. Recent drug use prior to the interview can mask feelings or symptoms which after a period of abstinence

can become obvious to the individual. For example, someone may report significant trauma on the BHQ but in completing the PCL-S report no symptoms at all. These individuals may indeed have moved beyond the trauma, or they may be repressing their feelings, or they may be out of touch with feelings due to substance use, which many believe is the reason for such use to begin with (Najavits, 2002). After a period of time without drug use, and in an environment where people begin to talk about themselves, they may feel safer to admit their feelings and symptoms surrounding past trauma and may assess positively for PTSD.

Similarly, people who tested positive for PTSD may have actually been negative if the assessment was done on discharge after a full month without drug use since drug use prior to the interview may have heightened symptoms that subside when clean. It is also possible that people are trying to please the interviewer and therefore talk about their traumatic experiences in a grandiose way, scoring symptoms high. They may also believe that they will get more help with their problems if they have 'big problems' and therefore exaggerate the effect of trauma on their lives.

Clients may have been underreporting symptoms even though they were aware of them but felt uncomfortable disclosing them or even acknowledging their existence. As noted above, it was not uncommon for men to report the experience of trauma and when asked about re-experiencing (Criteria B) or avoiding (Criteria C) symptoms they would respond saying "I just don't go there", and score all of those as a '1' meaning 'not at all' on the lickert scale. Yet, they would have high scores in the over arousal symptoms (Criteria D) of not sleeping well, anger issues, feeling jumpy etc., seemingly feeling comfortable to mention physical, concrete symptoms that may have appeared to them as unrelated to the experience of trauma. This became so common to hear, it raised curiosity about the potential underreporting of men. It seemed to me they were indicating

they would not know how to handle the emotions involved or that they are unable/unwilling to spend time to think about how they feel and report such feelings. This is a form of avoidance which would possibly meet criterion C for PTSD. Although not asked to share details of the trauma, they spoke of their experiences as if they were telling a story rather than relating to it personally. A more in depth assessment may have indicated PTSD was present. 'Refusing to go there' or ignoring the impact indicates there are strong emotions involved with the issue. The effects of trauma can cause someone to become 'emotionally illiterate', not able to identify internal emotional states, and it may take years for someone to learn to identify inner states and voice them with literacy (Dayton, 2000, p.43).

In this study Criterion F, of the DSM-IV for a PTSD diagnosis which relates to impairment of life functioning, was not assessed through the intake interview but rather was assumed (perhaps incorrectly) to be met because individuals present for addiction treatment due to impaired life functioning through addictive drug use. It follows that the drug use is undertaken to alleviate other symptoms in the individual such as emotional distress.

I was the only person conducting the interviews with clients to complete the various measurements, and therefore there is no interrater reliability, thus the data may be skewed somehow by my interaction with clients. Without supervision being done throughout the gathering of data, it is possible that I was not being consistent with my method of interacting with clients. I may think I treated everyone the same, but in reality I may not have. However, the questionnaires were read verbatim which will help to minimize the effect of any bias I may have. Scoring the instruments involved is very simple and does not involve subjective opinion. Clients often asked me to help them rate an answer and I

always told them they needed to answer it on their own since I could not interpret the extent of their feelings.

Clients may have responded differently to questions asked on the BHQ and PCL-S if they were self-administered. Because they are completed on the day of admission, clients may either be reserved because they are not yet comfortable with the staff and the environment of Georgianwood, or they may exaggerate trauma because they are eager to please the staff and show their need for help. This could be exaggerated with self-report as well. Clients may fear the response of staff when such questions are asked, particularly if such disclosure in the past has been met with negative repercussions. I expected that clients would answer questions asked of them and must acknowledge that this may not be the case. It is not unusual for victims of severe abuse to feel shame and guilt or self blame surrounding such issues and may not disclose the trauma for these reasons (Herbert & Wetmore, 2001; Najavits, 2002; Tobin, 1989). Similarly, traumatic memories may be blocked by the individual, especially in cases of childhood abuse, and may not be available to them to relate to me when questioned. Men who have been sexually abused as children often downplay the effect of such treatment because they do not even understand it themselves or are so ashamed they will not disclose it (Tobin, 1999). Men may not have been comfortable talking to a woman at all about such experiences, and similarly women may have been more comfortable talking to an empathic man.

Completing the assessments in an interview style rather than as self-reports, allowed clients to ask for clarification of questions not understood. As a self-report they may not have felt comfortable asking for information.

It is possible that clients answered questions falsely to expedite the interview since it can become a long process if several traumas are addressed. For some clients the

questionnaires took 15 minutes to complete because they have had little trauma. Others took up to two hours if they have had several experiences to complete the PCL-S for. Throughout that time they kept answering the questions and were often surprised at the depth of questions and comment on how the psychiatrist does not know some of the things they have shared with me.

Administering the questionnaires for 1 1/2 years has been an incredible experience for me. Although the instruments used during the interview are meant to require very little communication (they are self-assessments), clients would often talk at length about their experiences and this in itself seemed to be a healing process for them. Most clients thanked me for taking the time to ask about such painful topics. Twice, the client was too upset to continue answering questions and I ended the interview before they became unstable emotionally. Both wanted to and were able to finish the interview at a later time and both thanked me for the exchange. It was not unusual to hear "I have never told anyone this until now". Many seemed disappointed when the interview was done and would sit and keep talking to me. I have never had a sense that people were answering falsely in order to speed the interview. Because the BHQ is administered first and relatively quickly with yes or no responses, the extent of trauma experienced is relatively accurate I believe. Errors of omission occur when someone has experienced trauma that they have no memory of, or trauma that they believe was normal or that they deserved somehow, or they are too ashamed to acknowledge. Examples of this include people who were severely abused as a child but believe it was normal parenting and therefore say 'no' when asked if they experienced physical punishment as a child. This sometimes came up in conversation and then the BHQ was discussed again to verify former answers.

Ideas for further research

An interesting future study would be to determine if and why men underreport emotional experiences and if and why women feel more comfortable to report. We know that women are more likely to be diagnosed with PTSD but we don't know if that means they are more susceptible to it perhaps due to the prevalence of rape resulting in PTSD, or if they are just more likely to talk about it (Najavits, 2002). Some work has been done in this area, but it would be interesting to determine how one can best help men to seek help and feel comfortable to share experiences. We know men suffer with PTSD since it was through male war veterans that research into trauma began after WWI with a more formal definition of PTSD added to the Diagnostic and Statistical Manual of Mental Disorders in 1980 (Davidson & Dreher, 2003).

Subsequent to this study being completed the program hired a psychologist to conduct program development and evaluation. In order to standardize assessment the program psychiatrist was required to begin using the MINI to have a standardized diagnosis tool for incoming clients. It would be interesting to see if the prevalence of PTSD was comparable to this study or if it was higher or lower and to determine why they may be different.

Follow-up studies of those assessed as having PTSD could be done to determine if relapse rates are the same as within the remainder of the population treated or not. Treating some of those diagnosed with PTSD and comparing their relapse rates and general life functioning with those untreated would be useful as well.

Comparing treatments for PTSD within the group setting would help determine which treatment was most effective. Similarly, studying the usefulness of treatment models, such as cognitive behavioural therapy, in gender specific ways may also provide useful information. One treatment may be excellent for women but not so helpful for

men. For example, men do not like to be referred to as a 'victim' whereas women are not necessarily offended by the term (Tobin, 1999).

Finally, much work needs to be done with respect to mindfulness training and the reduction of both PTSD symptoms and substance use. Current research focuses on substance use but not PTSD.

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Mental Health Centre Penetanguishene
Georgianwood Concurrent Disorders Program

Name_____ Casebook # _____

Trauma History Questionnaire (BHQ)

The following questions ask about events that may be extraordinarily stressful or disturbing for almost everyone.

Please circle "Yes" or "No" to report what has happened to you.

If you answer "Yes" for an event, please answer any additional questions that are listed on the right side of the page to report: (1) whether you thought your life was in danger or you might be seriously injured; and (2) whether you were seriously injured.

If you answer "No" for an event, go on to the next event.

Have you experienced this event?			**Answer these questions for each event that has happened to you**	
			Did you think your life was in danger or you might be seriously injured?	Were you seriously injured?
1. Military service in a war-zone or military service in a noncombat job that exposed you to war-related casualties (for example, as a medic or on graves registration duty)	No Yes		No Yes	No Yes
2. A serious car accident, or serious accident at work or somewhere else	No Yes		No Yes	No Yes
3. A major natural or technological disaster, such as a fire, tornado, hurricane, flood, earthquake, or chemical spill	No Yes		No Yes	No Yes
4. A life-threatening illness such as cancer, a heart attack, leukemia, AIDS, multiple sclerosis, etc.	No Yes		No Yes	
5. Before age 18, physical punishment or beating by a parent, caretaker, or teacher so that: you were very frightened; or you thought you would be injured; or you received bruises, cuts, welts, lumps or other injuries	No Yes		No Yes	No Yes
6. An attack, beating, or mugging by anyone, including friends, family members, or strangers **Note**: Do not answer "yes" for any attack or beating you already reported in Question 5	No Yes		No Yes	No Yes
7. A situation in which someone made or pressured you into having some type of unwanted sexual contact **Note**: By sexual contact we mean any contact between someone else and your sexual organs or between you and someone else's sexual organs	No Yes		No Yes	No Yes
8. Any other situation in which you were seriously injured, or a situation in which you feared you might be seriously injured or killed	No Yes			No Yes
9. A situation in which a close family member or friend died violently, for example, in a serious car crash, mugging, or attack	No Yes			
10. A situation you witnessed in which someone else was seriously injured or killed, or a situation in which you feared someone would be seriously injured or killed **Note**: Do not answer "yes" for any event you already reported in Questions 1-9	No Yes			

Signature **Date**

Appendix B

Mental Health Centre Penetanguishene
Georgianwood Concurrent Disorders Program

PTSD Checklist (PCL-S)

Name_____ Casebook #_____

The event you experienced was _____ on _____.
(event) (date)

INSTRUCTIONS: Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem **in the past month**.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing *memories, thoughts,* or *images* of the stressful experience?	1	2	3	4	5
2. Repeated, disturbing *dreams* of the stressful experience?	1	2	3	4	5
3. Suddenly *acting* or *feeling* as if the stressful experience *were happening again* (as if you were reliving it)?	1	2	3	4	5
4. Feeling *very upset* when *something reminded you* of the stressful experience?	1	2	3	4	5
5. Having *physical reactions* (e.g., heart pounding, trouble breathing, sweating) when *something reminded you* of the stressful experience?	1	2	3	4	5
6. Avoiding *thinking about* or *talking about* the stressful experience or avoiding *having feelings* related to it?	1	2	3	4	5
7. Avoiding *activities* or *situations* because *they reminded you* of the stressful experience?	1	2	3	4	5
8. Trouble *remembering important parts* of the stressful experience?	1	2	3	4	5
9. *Loss of interest* in activities that you used to enjoy?	1	2	3	4	5
10. Feeling *distant* or *cut off* from other people?	1	2	3	4	5
11. Feeling *emotionally numb* or being unable to have loving feelings for those close to you?	1	2	3	4	5
12. Feeling as if your *future* will somehow be *cut short*?	1	2	3	4	5
13. Trouble *falling* or *staying asleep*?	1	2	3	4	5
14. Feeling *irritable* or having *angry outbursts*?	1	2	3	4	5
15. Having *difficulty concentrating*?	1	2	3	4	5
16. Being *"super-alert"* or watchful or on guard?	1	2	3	4	5
17. Feeling *jumpy* or easily startled?	1	2	3	4	5

PCL-S for DSM-IV (11/1/94) Weathers, Litz, Huska, & Keane, National Center for PTSD - Behavioral Science Division

Signature _____ Date _____

Appendix C

Mental Health Centre Penetanguishene
Georgianwood Concurrent Disorders Program

DALI (Dartmouth Assessment of Lifestyle Inventory)

Name: _____ Casebook #_____

Date: _____ Score: _____

Now I'd like to ask you some questions about various aspects of your life, especially habits and choices that may affect your health. Please try to bear with me and answer each question.

I am going to read the questions exactly as they are worded so that each person is asked the same thing. In some cases, you'll answer yes or no, in other cases you'll give me a number. It is very important that your answers be accurate and complete. Please take your time. Feel free to ask me questions if you are not sure what is being asked.

		Values	x	Alcohol DALI Wt	Score	x	Drug DALI Wt	Score
1	Do you wear seatbelts while riding in the car? Yes No Refused Not Applicable Don't Know Missing 0 1 .41 .41 .41 .41	(Yes=0) (No=1) (Ref/DK/Miss=.41)		x(+1)=				
2	How many cigarettes do you smoke each day? (Not Scored)	(Not Scored)						
3	Have you tried to stop smoking cigarettes? (Not Scored)	(Not Scored)						
4	Do you control your diet for total calories (amount you eat)? (Not Scored)	(Not Scored)						
5	How much would you say you spent during the past 6 months on alcohol? Dollars ____ Refused Not Applicable Don't Know Missing <49=0, >49=1 1 0 1 .26	($0-$49/NA=0) (>$49/Ref/DK=1) (Missing=.26)		x(+1)=			x(-1)=	
6	How many drinks can you hold without passing out? [Interviewer Note: If patient does not know, ask "How many do you think it would take?"] Number ____ Refused Not Applicable Don't Know Missing 1-5=1, >5=2 1.61 0 1.61 1.61	(0/NA=0) (1-5=1, >5=2) (Ref/DK/Miss=1.61)		x(+1)=				
		Totals from page 1		Alcohol			Drug	

		Values	x	Alcohol DALI Wt	Score	x	Drug DALI Wt	Score
7	Have close friends or relatives worried or complained about your drinking in the past six months? Yes No Refused Not Applicable Don't Know Missing 0 1 .78 1 .78 .78	(Yes=0) (No/NA=1) (Ref/DK/Miss=.78)		x(-1)=				
8	Have you ever attended a meeting of Alcoholics Anonymous (AA) because of your drinking? Yes No Refused Not Applicable Don't Know Missing 0 1 .53 1 .53 .53	(Yes=0) (No/NA=1) (Ref/DK/Miss=.53)		x(-1)=				
9	Do you sometimes take a drink in the morning when you first get up? (If asks: Alcohol) Yes No Refused Not Applicable Don't Know Missing 0 1 .83 1 .83 .83	(Yes=0) (No/NA=1) (Ref/DK/Miss=.83)		x(-1)=				
10	How long was your last period of voluntary abstinence from alcohol? (or "most recent period when you chose not to drink.") [Interviewer Note: 2 weeks or more equals a month. Exclude periods of incarceration or hospitalization.] Months ____ Refused Not Applicable Don't Know Missing 0-59=1, ≥60=0 .76 0 .76 .76	(≥60 months/NA=0) (0-59 months=1) (Ref/DK/Miss=.76)		x(+1)=				
11	How many months ago did this abstinence end for alcohol? (or "when did you start drinking again?") Months ____ Refused Not Applicable Don't Know Missing 0=0, >0=1 .40 0 .40 .40	(0 months/NA=0) (>0 months=1) (Ref/DK/Miss=.40)		x(+1)=				
12	Have you used marijuana in the past 6 months? Yes No Refused Not Applicable Don't Know Missing 0 1 .70 .70 .70 .70	(Yes=0) (No/NA=1) (Ref/DK/Miss=.70)		x(-1)=			x(-1)=	
	Total scores from this page						Drug	
	Enter total alcohol score from page 1 Add total scores from pages 1 and 2							

Signature_____ Date_____

		Values	x	Alcohol DALI Wt	Score	x	Drug DALI Wt	Score
13	Have you lost a job because of marijuana use? Yes No Refused Not Applicable Don't Know Missing 0 1 .93 1 .93 .93	(Yes=0) (No/NA=1) (Ref/DK/Miss=.93)					x(-1)=	
14	How much would you say you spent in the past 6 months on marijuana? Dollars ____ Refused Not Applicable Don't Know Missing 0=0, >0=1 1 0 1 .18	($0/NA=0) (>$0/Ref/DK=1) (Missing=.18)					x(+1)=	
15	How troubled or bothered have you been in the past 6 months by marijuana problems? Not at All Slightly Moderately Considerably Extremely 1 2 3 4 5 Refused Not Applicable Don't Know Missing 1 0 1 .19	(1/NA=0) (2-5/Ref/DK=1) (Missing=.19)					x(+1)=	
16	Has cocaine abuse created problems between you and your spouse or your parents? Yes No Refused Not Applicable Don't Know Missing 0 1 .82 1 .82 .82	(Yes=0) (No/NA=1) (Ref/DK/Miss=.82)					x(-1)=	
17	How long was your last period of voluntary abstinence from cocaine? (or "most recent period when you chose not to use") [Interviewer Note: 2 weeks or more equals a month. Exclude periods of incarceration or hospitalization.] Months ____ Refused Not Applicable Don't Know Missing 0-59=1, ≥60=0 .19 0 .19 .19	(≥60 months/NA=0) (0-59 months=1) (Ref/DK/Miss=.19)					x(+1)=	
18	Do you ever use cocaine when you're in a bad mood? Yes No Refused Not Applicable Don't Know Missing 0 1 0 1 0 0	(Yes=0) (No/NA=1) (Ref/DK/Miss=0)					x(+1)=	
		Total scores from this page					Drug	
		Enter total drug score from page 1					Drug	
		Enter total drug score from page 2					Drug	
		Add total scores from pages 1, 2 and 3					Drug	

Signature_____ Date_____

Appendix D

Mental Health Centre Penetanguishene
Georgianwood Concurrent Disorders Program

DAST (Drug Abuse Screening Test)

Name: _____ Casebook #_____ Score: _____

1	Have you used drugs other than those required for medical reasons?	Yes	No
2	Have you abused prescription drugs?	Yes	No
3	Do you abuse more than one drug at a time?	Yes	No
4	Can you get through the week without using drugs (other than those required for medical reasons)?	Yes	No
5	Are you always able to stop using drugs when you want to?	Yes	No
6	Do you abuse drugs on a continuous basis?	Yes	No
7	Do you try to limit your drug use to certain situations?	Yes	No
8	Have you had "blackouts" or "flashbacks" as a result of drug use?	Yes	No
9	Do you ever feel bad about your drug abuse?	Yes	No
10	Does your spouse (or parents) ever complain about your involvement with drugs?	Yes	No
11	Do your friends or relatives know or suspect you abuse drugs?	Yes	No
12	Has drug abuse ever created problems between you and your spouse?	Yes	No
13	Has any family member ever sought help for problems related to your drug use?	Yes	No
14	Have you ever lost friends because of your use of drugs?	Yes	No
15	Have you ever neglected your family or missed work because of your use of drugs?	Yes	No
16	Have you ever been in trouble at work because of drug abuse?	Yes	No
17	Have you ever lost a job because of drug abuse?	Yes	No
18	Have you gotten into fights when under the influence of drugs?	Yes	No
19	Have you ever been arrested because of unusual behavior while under the influence of drugs?	Yes	No
20	Have you ever been arrested for driving while under the influence of drugs?	Yes	No
21	Have you engaged in illegal activities to obtain drugs?	Yes	No
22	Have you ever been arrested for possession of illegal drugs?	Yes	No
23	Have you ever experienced withdrawal symptoms as a result of heavy drug intake?	Yes	No
24	Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, or bleeding)?	Yes	No
25	Have you ever gone to anyone for help for a drug problem?	Yes	No
26	Have you ever been in hospital for medical problems related to your drug use?	Yes	No
27	Have you ever been involved in a treatment program specifically related to drug use?	Yes	No
28	Have you been treated as an outpatient for problems related to drug abuse?	Yes	No

Signature_____Date_____