TREATING POST-TRAUMATIC STRESS DISORDER IN A THERAPEUTIC COMMUNITY: THE EXPERIENCE OF A CANADIAN PSYCHIATRIC HOSPITAL

David C. Wright, M.D., F.R.C.P.(C).
and Wendi L. Woo, M.A.

Program for Traumatic Stress Recovery
Homewood Health Centre,
Guelph, Ontario
Canada

This paper will discuss The Program for Traumatic Stress Recovery. A program description follows a discussion of both the trauma model and the therapeutic community. Information about treatment outcomes will be presented, along with a discussion about the role of the therapeutic community in achieving positive treatment gains.

Background

The Program for Traumatic Stress Recovery (PTSR), situated in a psychiatric hospital in Guelph, Ontario, Canada, is a specialized, inpatient treatment program for adults suffering from post-traumatic stress disorder (PTSD). This program has been in existence since October 1993, and was initially designed for the treatment of adult survivors of childhood abuse. With time, the mandate of the PTSR has grown to encompass all types of trauma (e.g. workplace, military, motor vehicle accident) at any life stage.

Drawing upon the work of Herman (1992) and van der Kolk et al. (1996), a new way was developed to treat adults suffering from the presumptive negative impact of childhood abuse on their current adult life. The resulting so called "trauma model" was then applied within the context of a therapeutic community milieu, adapted from Bloom's Sanctuary Model (1994). The PTSR was developed to treat the under recognized symptoms of chronic PTSD. While during the first years of operation, more than 95% of the participants met diagnostic criteria for PTSD, as determined by the Clinician Administered PTSD Scale (Blake et al., 1985), only 33% had been given that diagnosis prior to admission. Instead they were being diagnosed with depression, anxiety, and personality disorders.

Since the program's onset, outcome studies have been employed in an attempt to measure treatment effects. Hypotheses have been developed regarding the roles that specific program elements have on treatment outcome. The impact of the therapeutic milieu as a potential treatment factor will be postulated in this article.

Trauma Model

Following the Vietnam War and the inclusion of PTSD in the American Psychiatric Association DSM-III (APA, 1980), many people's symptoms have been re-examined through the constructs of the trauma model.
In the past, some of these people may have been diagnosed with bipolar, borderline, schizoaffective, or other anxiety or depressive disorders without an appreciation of the impact that trauma may have on their current presentation. According to the American Psychiatric Association DSM IV (APA, 1994), a diagnosis of PTSD requires exposure to a traumatic event (Criterion A), and symptoms in three other categories to meet diagnostic criteria. These categories are intrusive recollections of the event (criterion B), avoidance (criterion C), and hyperarousal (criterion D). With the onset of DSM-IV, criterion A has been expanded to include a wider range of traumatic events. Symptoms may be acute or chronic, and the onset of symptoms may be delayed.

Much of our initial knowledge regarding the aetiology and treatment of PTSD was derived from the study of Vietnam veterans. Over the years, other populations including civilians, survivors of natural disasters, and victims of violence began to be studied. One of the earlier concepts behind the trauma model was that PTSD is a normal response to an abnormal event. This is now the focus of a debate in the literature with some suggesting that PTSD is an abnormal response to an abnormal event (Yehuda and McFarlane, 1995). Others, who continue to support its being a normal response, are suggesting that the severity of the trauma is the defining factor (Engdahl et al., 1997). Examining differences between the after effects of a single incident trauma versus prolonged and repeated episodes of trauma have led some such as Terr (1991) to label these Type I (single incident) and Type II (prolonged, repeated) traumas. There is also considerable debate regarding the impact of trauma experienced during the earlier developmental stages upon later adult life. It is not yet clear whether early traumatic experiences can be responsible for Axis II pathology, particularly borderline personality disorder (Gunderson et al., 1993). This has led others to suggest a construct of complex PTSD.

Herman (1992) proposed the term “Complex PTSD” to refer to PTSD following prolonged extreme stress. Examples of situations that may lead to the development of complex PTSD include being a prisoner of war, domestic battering, childhood abuse, and hostage conditions. Herman identifies a set of six alterations that occur for the individual suffering from complex PTSD. These alterations are in the areas of affect regulation, consciousness, self-perception, perception of the perpetrator, relations with others, and systems of meaning. The distinction between simple and complex PTSD has also been proposed by van der Kolk (1995). Complex PTSD was field tested for DSM-IV as Disorder of Extreme Stress Not Otherwise Specified (DESNOS). While DESNOS was not included as a specific entity in the DSM-IV, it is included as a description within the associated features of PTSD (1994). Further research may lead to further differentiation of this category.

Along with these developments in diagnoses, corresponding new treatment models have been created. Under the rubric of the trauma model, a stage model of treatment has been suggested (Herman, 1992; Chu, 1992). The first stage is 1) Creation of Safety. People suffering from PTSD, either acutely or chronically, report recurrent intrusive symptoms, which lead to re-experiencing the fear associated with the traumatic event, and re-experiencing the world as an unsafe place. The other two stages, as labelled by Herman are 2) Remembrance and Mourning, and 3) Reconnection. The later two stages cannot be effectively worked through if the individual has not discovered ways of first remaining safe during the process. In addition, the trauma model places an emphasis on the question “What's happened to you?” rather than “What's wrong with you?” (Foderaro cited in Bloom 1997, and in this volume). It is believed that this approach decreases shame and allows the individual to observe and take responsibility for their behaviour in new ways.

An additional issue of concern arising out of earlier applications of the trauma model is the role of memory (Paris, 1996a; Paris, 1996b). The “false memory syndrome” and the ensuing debate regarding the reliability of memory is acknowledged within the PTSR. The therapeutic stance taken in our program toward alleged histories of trauma is that the history of trauma represents the individual's belief, but may not accurately represent what truly occurred. It is however the impact of those beliefs on the present, rather than a search for accuracy that is the therapeutic work. This position has increasingly found support in the literature (Gutheil & Simon, 1997).
Therapeutic Community:
The therapeutic community model of treatment gained momentum starting with the writings of Main (1946) and Jones (1956). This model of therapy was applied to both in-patient and out-patient settings, as well as both specialized and general psychiatric populations. While the structure and specific program elements varied depending on the population being treated, these therapeutic communities held the common philosophy that the milieu of the therapeutic environment in and of itself is an instrumental part of healing. Key principles of the therapeutic community included self-responsibility, joint decision-making, and open communication as well as a belief that all community members, staff and patients alike, are active agents in healing.

The therapeutic community model was adopted in Canada, and served as the framework for the creation of North America's first day hospital, established at the Allan Memorial Institute in Montreal, Canada (Cameron, 1947). This movement later spread throughout the country (Azim, 1993). In addition, the concept of treating difficult patients through the use of specialized multidisciplinary teams also has a well-established history in Canada (Greben, 1983).

Therapeutic communities and milieus have been difficult to describe due to poor operational definitions of their therapeutic variables. Gunderson (1978) attempted to characterize classes of therapeutic communities by defining five functional variables: Containment, support, structure, involvement, and validation. He suggested that these variables are somewhat hierarchical in that each depends upon the successful incorporation of those preceding. Flexibility and a tolerance of uncertainty on the part of staff were also acknowledged as important attributes in the successful operation of a milieu.

The PTSR offers a structure that provides predictability through mandatory program elements. However, it is also flexible by being responsive to specific individual needs when appropriate. Involvement in all aspects of the community is strongly encouraged, and validation (affirmation of individuality) is an important aspect of the PTSR experience. The PTSR is on an unlocked unit. If an individual declines in functioning or experiences an acute crisis, the program addresses the crisis through lowering the level of stimulation, focusing on safety, and providing support. If these measures are not effective in containing the crisis, a transfer occurs from the PTSR to other programs in the hospital with greater containment. Sometimes these crises can extend beyond the individual to the entire therapeutic community. Such a crisis may arise because one or more members have violated community rules (e.g. stealing, sexual relationships, violence) that may require discharge from the community. This can lead to a division within the community and needs to be addressed at a community level. During such times, there is a great emphasis placed upon communication and sharing of information. Sometimes, members of the community become too involved in each other's issues, producing excessive rescuing behaviours that interfere with the functioning of the community and distract people from focusing on their own therapeutic work.

In the literature about therapeutic communities, much attention is paid to the expanded roles which staff members of all disciplines must perform and the potential difficulties they may experience. In the trauma literature, discussion and concern regarding vicarious traumatisation or compassion fatigue is addressed (Pearlman & Saakvitne, 1995). These factors are acknowledged within the PTSR, and the staff continually examine these concerns though ongoing supervision, team building exercises, and program staff retreats.

The Merging of Concepts
With Bloom's creation of the Sanctuary Model (Bloom, 1994; 1997; this volume), the trauma model and therapeutic community concepts were merged. The Sanctuary Model arose out of concern that traumatized individuals were coming for treatment (seeking sanctuary), and were instead being further hurt by a system that patients perceived did not understand or care about them. With a better understanding of the symptoms of
PTSD, Bloom sought to combine a trauma framework with the established tenets of the therapeutic community. Since many individuals are traumatized as a result of interpersonal violence, they experience a social wound. The therapeutic community offers an environment where social wounds can have the necessary social healing.

The staff of the PTSR received the majority of their training in Canada. The principles of both the therapeutic community and the multidisciplinary team were embedded in much of our professional training. As such, the staff's familiarity with these principles made the adoption of Bloom's Sanctuary model easier. This awareness has also allowed the PTSR to adjust the Sanctuary Model to better accommodate to the Canadian culture.

While the Sanctuary and the PTSR share common treatment philosophies, several differences also exist. Bloom has taken the theory behind the Sanctuary model and incorporated it into a program appropriately entitled “The Sanctuary”. The PTSR shares a similar theory base, however, it has evolved with time into a distinctly Canadian program. Differences can be seen in length of stay, predominance of group work in the PTSR, as well as different staff components giving rise to different therapeutic interventions, such as the use of different creative arts therapies.

The Canadian health care system is a socialized medicine model with the government being the single payer. This has protected programs of extended duration such as the PTSR from the onslaught of the American model of managed care. This economic and political reality has allowed the principles of the therapeutic community to be tested as to its clinical efficacy. Another difference that needs further exploration is the impact of the different cultures of the two countries on treatment, as well as exposure to violence and trauma. The American experience appears to have a higher level of background violence which may make it more difficult for the individual to achieve a sense of safety in their daily lives.

Program for Traumatic Stress Recovery

*Program Description*

The PTSR is a 28-bed, six week in-patient treatment program. In the initial phase of the treatment program, the length of stay was variable, up to three months in duration. With clinical experience, it became apparent that patients deteriorated after eight weeks in hospital, demonstrating more intense discharge anxiety with an exacerbation of suicidal thoughts and minor acting-out behaviours, an increase in dependency behaviours, and a weakening of connections to pre-existing external supports. In addition, there was reluctance on the part of third party payers to finance such extended stays. Patients experienced any period shorter than one month as insufficient time to achieve change.

Individuals enter the program from all regions of Canada. Approximately 70% of participants are female, and the age range of individuals is 18 -70 years. The majority have co-morbid diagnoses of major depression. A significant portion have a history of previous addiction. The program is delivered by a multidisciplinary treatment team that includes psychiatry, psychology, nursing, occupational therapy, social work, recreation therapy, creative arts therapies, horticulture therapy and pastoral care. Delivering the program almost exclusively by means of a group modality enhances the experience of community. Shared group leadership allows for the development of a team and reduces the likelihood of splitting.

*Assessment Phase*

The individual's first week in the PTSR consists of a one-week assessment phase, during which participants are introduced to the program's core concepts such as those of safety, grounding and traumatic reenactment. During this period of time, individuals participate in small interactive psychoeducational and community based groups, and are evaluated regarding their ability to engage in group process, level of safety, tendency toward dissociation, and their capacity to tolerate interventions from others. This latter capacity is
significant in becoming an active member of the therapeutic community and in being able to resolve the normal, inevitable conflicts that arise from living with others.

Individuals are excluded from participation in the program if they are markedly unstable with regards to an addiction, eating disorder, or psychotic condition. In addition, while the individual cannot be in a state of acute crisis while participating in the treatment program, chronic suicidality is not an exclusion criteria. This assessment process is facilitated with input from all disciplines, as well as the individual's self-assessment.

The PTSR has learned through clinical experience that speaking in generalities does not lead to positive outcome. A position of the PTSR is that insight is of little benefit unless it results in behavioural change. Adult survivors of childhood trauma often have a capacity to compartmentalize life experiences, which makes it difficult for them to generalize successful learning experiences to other situations or aspects of life. As such, the PTSR has taken a goal-focused approach to treatment. During the assessment week, participants are taught goal setting skills, and are asked to establish specific goals, along with corresponding action steps, that are achievable within the six-week program parameters. These goals are then ranked by the individual, regarding their current levels of ability and satisfaction with these self-established goals. The establishment of goals inform the treatment plan by helping with group selections and other program elements. For those individuals who have a limited capacity to pace, the goals also provide both the individual and the treatment team with a focus for their therapeutic activity.

**Treatment Phase**

It is during the treatment phase that the participant actively works on their established goals, receives feedback from other community members (co-patients and staff) regarding unhealthy behaviour patterns, and risks adopting new ways of thinking and being. Participants in this phase of the program attend daily psychoeducational groups that address topics such as flashback management and affect modulation. There is also a daily process group. Specialized groups with themes such as loss, sexuality and intimacy, spirituality, and body esteem, are also available. Community activities including community meetings, walks and parties are also a part of the treatment schedule. If a crisis occurs, emergency community meetings are called to address issues. The patients are encouraged to use all of these activities to work on their stated goals.

The PTSR’s focus is almost exclusively on safety, the first stage of healing. The program has taken the stance that before exploratory or reconstructive work about the specific traumatic experiences can be undertaken, the individual must demonstrate an ability to establish and maintain safety in the here and now.

Within the PTSR, the issue of safety is addressed in a number of different spheres (environmental, somatic, interpersonal, spiritual, and emotional). The first is environmental safety, which refers to assuring that the therapeutic environment is physically safe for all members of the community. This is achieved by requiring all members of the community to sign a program agreement that clearly states that physical violence or sexual contact between community members will result in being asked to leave the community. Establishing this boundary allows all members of the community the opportunity to experience healthy, caring relationships in relative safety, without the threat of sexual coercion or physical intimidation.

Somatic safety refers to assuring a reasonable level of stability for the body. This includes the regulation of body functions such as eating and sleeping, as well as decreasing self-harming behaviours and providing individuals with tools to handle intrusive memories and physiological hyperarousal. The structure of the treatment program attempts to reflect a healthy, balanced lifestyle, with time for meals, rest, leisure, socialization and therapy scheduled into the program. Educational and skills groups are provided to develop skills to decrease self-harm and dissociation, and to manage intrusive memories and anxiety.

The use of medication, both for psychiatric and medical concerns, is seen as an appropriate tool to promote well-being. The majority of participants are on psychotropic medications prior to admission. These
are reviewed and adjusted if agreed to by both the attending psychiatrist and the individual patient. If either a medical or psychiatric condition deteriorates so that it becomes the necessary focus of treatment, the individual is asked to take their leave of the PTSR and are invited to return when stable.

Many trauma survivors live their lives in isolation, or in environments where no guidelines or boundaries exist. As such, interpersonal safety within the therapeutic community is created through the existence of guidelines for community living. These guidelines were developed by the client community and include several aspects of daily life from the care of community property, to the need to set time limits regarding telephone calls. Protocols for conflict resolution, emphasis on confidentiality as opposed to secrecy, learning about supportive relationships, and instruction in assertiveness training also adds to the development of interpersonal safety within the therapeutic community.

This experience of isolation frequently also exists within their current family situations. The PTSR has a focus on extending the work within the therapeutic community to the individual's outside relationships. A family dynamics group is offered weekly, during which time individuals can explore the impact of trauma on their family functions and the role they play in maintaining those dynamics. A family and friends program is available to offer support and information to the individuals in the participants social support network. In addition, brief couples or family therapy sessions are offered when appropriate.

Another realm of safety that the PTSR addresses is that of Spiritual safety. This involves developing a sense of hope, as well as a sense of belonging, having a place in the world, and participating in something larger than themselves. There are a number of aspects of the PTSR that facilitates the development of spiritual safety. There are psychoeducational groups that address topics such as developing and maintaining hope, as well as a spirituality group. Community meetings, leave taking rituals, and "Hope Books" where participants provide words of encouragement to one another all contribute to a sense of belonging and acceptance. The therapeutic community milieu however may be the greatest contributor to the development of spiritual safety. Patients live and work together with other trauma survivors and are exposed to the courageous ways that people deal with their past. This supports the development of hope and challenges their belief that they are alone.

For many survivors of trauma, safety is an experience that is difficult to access in the present. Because of intrusive memories and the process of traumatic reenactment, dangers from the past are displaced into the present. As such, achieving a sense of emotional safety needs to involve teaching the individual to be aware of the relative safety that exists in the present. A number of solution-focused strategies are used to help individuals develop a sense of comfort and security in the present, and cognitive-behavioural, as well as experiential exercises are used to help individuals challenge mistaken beliefs that negatively impact their sense of emotional safety in their day-to-day lives.

Many individuals arrive with the mistaken belief that telling their story is the therapeutic endeavour that needs to be undertaken. Instead, the program guides the individual to focus on how their past negative experiences and resulting mistaken beliefs about themselves and the world are impacting their current life. A theoretical construct that facilitates this process is called Traumatic Reenactment (van der Kolk, 1989). This is a concept where maladaptive behaviours are seen as unsuccessful efforts to work through past traumatic events in the here and now.

A reframe of repetition compulsion, challenges the individual to look at repetitive unhealthy behaviour patterns that are employed in dealing with stress in the present. The unhealthy behaviours are linked with their past traumatic experiences and the individual is encouraged to give up the trauma based behaviour pattern in the present by risking healthier alternatives. An example of a traumatic reenactment may be the use of avoidance in the present. An acknowledgement is made that avoiding the traumatic stressor in the past may have been helpful, however, the individual is helped to realize that excessive avoidance in the present will often make attempts to fulfil adult needs harder to achieve. It is understood that concepts such as traumatic
reenactment are rarely directly causally linked, but it has been found that individuals are more willing to look at and change their problematic behaviours in our program using this concept.

Panic disorder has been described as fear of fear. In contrast, the individuals that are treated in PTSR have a fear of feeling. A significant number are also alexithymic and have little specificity in their language to communicate their emotional experience. They experience their symptoms with extreme intensity and often describe themselves as being overwhelmed with those emotions. As such, a significant part of the program is aimed at helping participants achieve both an improved level of affect identification and modulation.

**Discharge Phase**

All participants enter a discharge-planning phase before returning to their community of origin. Because of issues of rejection and abandonment, the leave-taking process is one that can result in reenactment, and crisis if not attended to appropriately. As such, opportunities to address their fears and feelings related to leaving the therapeutic community are provided, along with planning sessions that provide an opportunity to review new learning, and a chance to put into place resources that they will require once back home. At the conclusion of the program, the patients are asked to evaluate the goals that they established during the assessment phase with regards to attainment and satisfaction.

Attempts are made to communicate with and inform the outpatient resources that the individuals return to after discharge. The extent of involvement with outpatient resources varies from case to case, and ranges from sending reports accumulated during the individual’s program stay, to meeting with the individual’s entire out-patient team in a case conference. The available pre and post hospital therapeutic supports of the program participants range from nil to continued intensive outpatient work with multiple resources. In cases where the participant has no or little outpatient support, attempts to help them establish liaisons are made.

**The Community**

From the moment a request for a referral is made, individuals are informed that the program is delivered within the context of a therapeutic community. On their day of arrival, this is reintroduced through the admission process, where current community members welcome and orientate the new arrivals to the program.

The community is maintained through a number of experiences that are for the entire patient group and are identified as belonging to the community. These include community meetings, run by the participants three times a week, community walks and parties. A number of the program elements as previously described are delivered to the community as a whole. In addition, there is a weekly community session entitled "themes", which is an effort to address current issues within the therapeutic community. If there is a crisis or a rule violation occurring, the community is informed through "emergency community meetings", in an effort to promote open communication and achieve resolution.

This experience of community has often been stated by people at their discharge as the most important part of their treatment experience. Following discharge, individuals appear to keep in contact with one another, and significant numbers return to attend a yearly Christmas reunion. Christmas cards to the staff from former community members are not uncommon. Many also write from time to time to update us on their progress, and to inform us of significant life events e.g. the birth of a child.

**Outcomes**

There had been a paucity of scientific data on the treatment efficacy of the first generation of programs using the trauma model. The PTSR has been involved with measuring treatment outcomes. There was a need to scientifically validate the anecdotal positive outcomes shared by the early participants of the PTSR.
The PTSR engaged in a repeated measures design to evaluate treatment outcome and maintenance (Wright & Woo, 1997). Data was collected at admission, discharge, three months post discharge, and one year post discharge. Measures administered during the course of the study included the Clinician Administered PTSD Scale, Trauma Symptom Inventory, and Symptom Checklist 90 Revised. Findings showed a significant improvement in symptoms of posttraumatic stress disorder, as well as associated symptoms such as depression, phobic anxiety, and anxiety at discharge, some decay at three months, and a return to the improved values seen upon discharge at the one year follow-up. While acknowledging some limitations of the study, these findings suggest that the PTSR is significantly effective in the treatment of adult survivors of childhood trauma.

Another study examined client ratings of goal performance and satisfaction using the Canadian Occupational performance Measure (COPM) at admission, discharge and four months post discharge (Isotupa & Templeton, 1998). Client goals were classified into the following six categories: self-care, productivity, leisure, feelings, relationships, and spirituality. Findings showed a statistically significant improvement in both goal performance and satisfaction scores from admission to discharge for goals in all six categories. While there was some decay in scores at four months post discharge, these scores still showed statistically significant improvement as compared to admission scores.

Throughout the history of the therapeutic community, there has been more discussion of its theoretical application and speculation of its perceived benefits, rather than any direct measurement of the same. Within the PTSR, the therapeutic community has been positively commented upon frequently in patient satisfaction questionnaires, as well as participant self-reports. However, the design of the PTSR's initial outcome study did not identify the therapeutic community as a separate treatment variable. Nevertheless, some of the findings have led us to speculate as to the ways the therapeutic community may be impacting the treatment outcomes.

One of the ways in which the outcome data has been analysed is by comparing admission versus discharge outcomes against personality disorder clusters, as assigned by MMPI2 and MCMI-II profiles (Ross, 1997). According to the MMPI2, 53.1% of participants fit cluster A (paranoid, schizoid and schizotypal), 28.3% fit cluster B (antisocial, borderline, histrionic and narcissistic), 13.3% fit cluster C (avoidant, dependent and obsessive-compulsive), and 5.3% did not fit within a personality cluster. Analysis of MCMI-II profiles yielded a different distribution of personality types with 5.5% falling into cluster A, 15.7% falling into cluster B, 63.8% falling into cluster C, and 15.0% not fitting into a clear personality cluster. The fact that the majority of people, according to either measure, did not fall into cluster B (i.e. borderline personality disorder) was not anticipated.

The most unexpected finding was that treatment gains were the same regardless of the personality cluster of either measure, to which the individual was assigned. This does not mean that every cluster started and ended at the same absolute values, but that the magnitude of improvement was not dependent upon personality cluster.

There has been a great deal of discussion about the degree of overlap between personality disorders. Evidence suggests that most individuals who have personality pathology meet criteria for more than one axis II personality disorder (Gabbard, 1994). This overlap of personality disorders does not in our opinion completely explain the equal efficacy of the PTSR across personality clusters. A potential explanation to explain these findings is to attribute them to the impact of the therapeutic community. The therapeutic community appears to serve as a holding container with a great capacity to tolerate differences. The qualities attributed to cluster A, such as idiosyncratic thinking and ways of relating appear to be handled by the community in a supportive, non-scapegoating fashion. This allows the treatment team to focus on intervening with cluster B impulsivity and emotional lability, and challenging the dependency and avoidance of individuals with prominent cluster C pathology. With the therapeutic community as a holding environment, it is noticed that with time, idiosyncratic behaviours decrease and more normative behaviours are adopted.
A research project using a program logic model is currently under development to measure more directly the role of the therapeutic community in treatment (Isotupa, 1998). This project is attempting to assign to each therapeutic activity during the patients stay a perceived value corresponding to the outcome.

**Conclusion:**

The Program for Traumatic Stress Recovery has been described and its therapeutic underpinnings presented. Initial outcome studies suggest that the efficacy of the program appears to be substantial in both symptom reduction and goal attainment. Several interesting findings have pointed to the potential value of offering treatment in the context of a therapeutic community. Further research is underway to more directly quantify the community's impact on treatment gains. As scientific research into the sequelae of traumatic exposure continues, the theoretical supposition of a “social wound requiring social healing” may become more accepted. The PTSR is committed both to furthering its own development based on the growing science informing the treatment of PTSD and adding our clinical findings to the discussion of treatment in the literature.

**References**


