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Acute Stabilization In A Trauma Program: A Pilot Study

Colin A. Ross, MD

Sean Burns, MA, LLP

Address correspondence to: Colin A. Ross, MD, 1701 Gateway, Suite 349, Richardson, TX 75080 (E-mail: rossinst@rossinst.com).

Phone: 872-918-9588

FAX: 972-9180-9069

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ABSTRACT. Previous treatment outcome studies from a hospital-based Trauma Program in Texas reported a marked reduction in depression, hopelessness and suicidality during acute inpatient and day hospital treatment. In the current pilot study, the authors measured Beck Depression Inventory scores at admission and discharge from inpatient treatment at a hospital-based Trauma Program in Michigan serving a similar population and employing the same treatment model. The average Beck Depression Inventory Score at admission was 33.3 and at discharge an average of 10.3 days later, it was 13.5. The results of this pilot study indicate that the excellent treatment response at the Texas hospital likely can be replicated at other locations.

A series of treatment outcome studies at a hospital-based Trauma Program in Dallas, Texas have demonstrated a marked reduction in scores on measures including the Beck Scale for Suicidal Ideation (Beck & Steer, 1991), the Beck Hopelessness Scale (Beck and Steer, 1988) and the Beck Depression Inventory (Beck, Steer, & Brown, 1996). These improvements are maintained or further improved at three months and two years follow-up (Ellason & Ross, 1996; 1997; 2004; Ross & Ellason, 2001; Ross & Haley, 2004). The population treated in the Texas Trauma Program has high rates of comorbidity on both Axis I and II including over 90% with a dissociative disorder and over 95% with major depressive disorder (Ellason & Ross, 1996; 1997; Ellason, Ross, & Fuchs, 1996). Patients are referred to the Texas Trauma Program from many different states. They are referred because the Trauma Program treats the full range of comorbidity in the patients, while taking the psychological trauma and dissociative disorders into account.

The primary targets of acute treatment within this Texas Trauma Program are the depression, hopelessness and suicidal ideation of the clientele. Other problems and comorbidity including dissociative symptoms measured by the Dissociative Experiences Scale (Bernstein & Putnam, 1986), respond to longer term treatment over months and years, but not to acute stabilization in the inpatient and day hospital setting.

These findings from Texas represent the only prospective treatment outcome data for hospitalized trauma patients with extensive comorbidity including dissociative disorders, and the only outcome data using valid and reliable measures of symptoms and

diagnoses. A key question is whether these findings from Texas can be replicated at other locations.

The authors hypothesized that scores on the Beck Depression Inventory would show similar marked reductions during acute stabilization at a hospital Trauma Program in Michigan using the same treatment model and serving a similar population (Ross, 1997; 2000). The present report is a pilot study; its purpose is to provide preliminary data on treatment outcome at a second Trauma Program in Grand Rapids, Michigan. Our intention is to follow up on the pilot data with a more rigorous treatment outcome study.

METHOD

Participants

Participants were 111 inpatients admitted to a Trauma Program at a private psychiatric hospital in Grand Rapids, Michigan. There were 93 women and 18 men with an average age of 37.3 years (SD=11.1), range 19-63. The average length of stay on the inpatient unit was 10.3 days (SD=5.7). No other demographic or clinical data were gathered and no diagnostic interviews were administered as part of the study.

Based on their clinical experience as Trauma Program Director in Michigan (S.B.) and Medical Consultant to the Trauma Programs in both Texas and Michigan (C.R.), the authors conclude that the two populations are very similar clinically. That is, over 90% of individuals admitted to the Michigan Trauma Program have a dissociative disorder and over 90% report childhood physical and/or sexual abuse. Other forms of abuse, trauma and neglect are also endemic in the population. This conclusion is based on clinical

experience in the two Trauma Programs; structured interviews and other more rigorous research methodology is available only from the Texas Trauma Program (Ross, 1997; Ellason & Ross, 1997; Ross & Ellason, 2001; Ross & Haley, 2001).

Participants were admitted to the Michigan Trauma Program between March 1, 2003 and November 24, 2004. During this time period, 395 other individuals were admitted to the Michigan Trauma Program: demographic and length of stay data were available on 360 of them. These non-participants had an average age of 39.4 years (SD=10.2) which did not differ significantly from the participants ($t(471)=1.91$, NS). The non-participants had an average length of stay of 9.8 days (SD=5.8), which did not differ significantly from the participants ($t(471)=0.90$, NS). Of the participants, 84% were women, while of the non-participants, 86% were women ($X^2(1, N=471)=0.677$, NS). The non-participants were patients who either did not agree to participate, or who were not approached due to time limitations. No effort was made at either a random or a complete selection of participants.

Measures

The Beck Depression Inventory was completed at admission and discharge from inpatient treatment. The Beck Depression Inventory is the most widely used self-report measure of depression in the literature, and the psychometric properties of the measure are well established (Pincus, Rush, First, & McQueen, 2000).

The Treatment Model

The Trauma Programs at both hospitals are based on the Trauma Model, which is described in the book of the same name (Ross, 2000). Although Trauma Model Therapy is not fully manualized, it is described in detail in *The Trauma Model* (Ross, 2000) book. Staff in both the Texas and the Michigan Trauma Programs have been extensively trained in Trauma Model Therapy over periods of years, including weekly team meetings and consultations by the Medical Consultant (C.R.) provided either in person or by video conference, as well as direct observation of cognitive therapy conducted by that consultant in both locations on a weekly basis.

Trauma Model Therapy is designed to be effective for a broad range of Axis I and II disorders including mood, anxiety, psychotic, eating and dissociative disorders (Ross, 2000; 2004). Trauma Model Therapy is not specific to any single diagnosis because it is designed for highly comorbid individuals with many Axis I and II disorders and extensive psychological trauma. It consists of a mix of experiential, didactic and cognitive-behavioral therapies. Symptoms, diagnoses and addictions are conceptualized as avoidance strategies within the model, and treated in a desensitization and cognitive restructuring format, supplemented by affect management and life skills building interventions. The "phobic stimulus" in the model is intolerable feelings, conflicts and life situations. The core affect being avoided is unresolved grief from a chronically and severely traumatic childhood, thus the model incorporates a great deal of grief and loss work.

An example of a cognitive therapy technique used within Trauma Model therapy is the "what if cascade" (Ross, 2000). The therapist asks a serious of "what if" questions

to determine the ultimate catastrophe being avoided by various self-destructive behaviors and addictions: what if you didn't self-mutilate? - I'd have to drink – what if you didn't self-mutilate or drink? – I'd have to kill myself – what if you didn't kill yourself? – I'd get lost in the feelings forever. Once the ultimate catastrophe predicted by the individual is identified, then the catastrophizing cognitive error can be challenged with education, Socratic questioning, collaborative empiricism, and other standard techniques.

Another technique is asking a series of questions designed to challenge the core belief in the badness of the self, which is a primary target of Trauma Model therapy. This is done by getting the person to see herself through someone else's eyes. The therapist could ask whether the person would ever murder her daughter, which she wouldn't. The therapist can then ask what steps the person would take to prevent someone else from murdering her daughter. The therapist can then ask how it would affect her daughter if someone murdered her daughter's mother. If the answer is that it would affect her daughter badly, then the therapist asks the person why she is planning on murdering her daughter's mother (herself)? The idea is to get the person to see her suicide from her daughter's perspective, and to reframe it as the murder of her daughter's mother. The person's love for her daughter then interferes with her plan for suicide, and she begins to see herself through her daughter's eyes.

The patients in both Programs receive individual and group psychotherapy that is structured, and based on specified principles, strategies, tasks and goals. For instance, in both Programs, patients attend educational groups in which the victim-rescuer-perpetrator triangle, the problem of attachment to the perpetrator, and the locus of control shift are

explained didactically (Ross, 2000). All treatment is based on the principle that symptoms, behaviors and addictions have a function, which can be intrapsychic and/or interpersonal. One goal of treatment is to understand the function of the symptom and replace it with a healthier, more adaptive coping strategy.

The Trauma Model Therapy training is done through books, workshops, consultation, observing the author doing therapy, role plays of therapy and a certification training. Additional components of the training process that are in preparation or early implementation include a Trauma Model workbook and a certification multiple choice examination.

Trauma Model Therapy provides a mix of cognitive-behavioral and experiential therapies. The cognitive-behavioral elements include many techniques that are part of standard cognitive therapy for depression and anxiety (Beck & Emery, 1985; Beck, Rush, Shaw, & Emery, 1979). Standard cognitive therapy strategies include correction of the cognitive errors of catastrophization, over-generalization, all-or-nothing thinking, personalization; this is done through a process of collaborative empiricism in which core beliefs and automatic negative thoughts are tested against logic and empirical evidence from the person's life. The experiential aspects of Trauma Model are based on principles and techniques of systematic desensitization that are likewise widely accepted in the mental health field.

Data Analyses

Beck Depression Inventory Scores at admission and discharge were compared using a paired t test. An effect size was also calculated for the change in scores from admission to discharge using Cohen's *d*, and a Pearson correlation was calculated for length of stay and discharge depression score, and for length of stay and change in depression score.

RESULTS

The average Beck Depression Inventory score at admission was 33.3 (SD=11.0) and at discharge it was 13.5 (SD=10.8) $t(110)=16.29$, $p = .0001$. The effect size for this difference was $d = 1.60$. The current standard in the literature is that an effect size of $d = 0.20$ indicates a small effect, $d = 0.50$ a medium effect, and $d = 0.80$ a large effect (Cohen, 1977; Pickar and Bartko, 2003). Length of stay correlated with discharge depression score at $r = 0.03$ and with change in depression score at $r = 0.11$, neither of which were significant (alpha = 0.05).

DISCUSSION

The findings confirm the authors' hypothesis that marked reductions in Beck Depression Inventory scores can be demonstrated at a hospital-based Trauma Program in Michigan serving a similar population with the same treatment model (Ross, 1997; 2000) as a more thoroughly studied Trauma Program in Dallas, Texas. Such replication is a component of the validation of any treatment model.

Our pilot study has several limitations which we would like to rectify in future research: no structured diagnostic interviews were administered, no clinical diagnostic information was tabulated; only the Beck Depression Inventory was administered; selection of participants was neither random nor complete; there was no control or comparison group; and there was no post-discharge follow-up. It is therefore uncertain if the reductions in depression scores in this setting would be confirmed by other measures and by follow-up as they have been in the Texas Trauma Program.

Due to the pilot nature of the data, no conclusions can be reached regarding the cause of the marked reductions in Beck Depression Inventory scores from an average of 33.3 to 13.5 over an average period of 10.3 days, however it is hard to see, clinically, how this could be due to spontaneous remission, a placebo effect, time or other non-specific variables. We believe it is a treatment effect, but in the absence of more rigorous data that is only our clinical conviction.

Ordinarily, a study of treatment outcome using a single measure might not be considered a significant contribution to the field. This might be true, for instance, if the population receiving treatment was uncomplicated depressed outpatients and the treatment method was standard cognitive therapy. There is already extensive evidence that cognitive therapy is effective for depression. An uncontrolled study with one measure would not add to this literature.

This is not the situation for highly traumatized, highly comorbid inpatients with dissociative disorders, however. There is a paucity of data on such populations. Therefore, although the standard of randomization, a comparison treatment, structured

interview diagnoses, multiple measures and extended follow-up has not been met, we feel that the current data are of interest because the literature to date lacks any efforts of any kind at replication of prospective treatment outcome. The strength of our study is that it is prospective and involves a widely used measure with well established psychometric properties.

Ideally, in future studies, participants in treatment outcome studies should be randomized to active treatment and comparison or control treatments. Ross (2005) has discussed the logistical, design and ethical challenges that must be faced in any such study, given that the duration of treatment is five years or more. Other treatment programs serving highly comorbid individuals with dissociative disorders should undertake treatment outcome studies so that a body of data is available in the literature.

REFERENCES

Beck, A.T., & Emery, G. (1985). *Anxiety disorders and phobias: A cognitive perspective*. New York: Guilford Press.

Beck A.T., & Steer, R.A. (1988). *Beck Hopelessness Scale manual*. New York: Harcourt Brace & Co.

Beck A.T, & Steer, R.A. (1991). *Beck Scale for Suicidal Ideation manual*. New York: Harcourt Brace & Co.

Beck, A.T., Steer, R.A., & Brown, G.K. (1996). *BDI-II manual*. New York: Harcourt Brace & Co.

Beck, A.T., Rush, A.J., Shaw, B.F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.

Bernstein, E.M., & Putnam, F.W. (1986). Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease*, 174, 727-733.

Cohen, J. (1977). *Statistical power analysis for the behavioral sciences, revised edition*. New York: Academic Press.

Ellason, J.W., & Ross, C.A. (1996). Millon Clinical Multiaxial Inventory-II follow-up of patients with dissociative identity disorder. *Psychological Reports*, 78, 707-716.

Ellason, J.W., & Ross, C.A. (1997). Two-year follow-up of inpatients with dissociative identity disorder. *American Journal of Psychiatry*, 154, 832-839.

Ellason, J.W., & Ross, C.A. (2004). SCL-90_R norms for dissociative identity disorder. *Journal of Trauma and Dissociation*, 3, 85-92.

Ellason, J.W., Ross, C.A., & Fuchs, D.L. (1996). Lifetime Axis I and II comorbidity and childhood trauma history in dissociative identity disorder. *Psychiatry*, 59, 255-266.

Pickar, D., & Bartko, J.J. (2003). Effect size of symptom status in withdrawal of typical antipsychotics and subsequent clozapine treatment in patients with treatment-resistant schizophrenia. *American Journal of Psychiatry*, 160, 1133-1138.

Pincus, H.A., Rush, A.J., First, M.B., & McQueen, L.E. (2000). *Handbook of psychiatric measures*. Washington, DC: American Psychiatric Association.

Ross, C.A. (1997). *Dissociative identity disorder: Diagnosis, clinical features, and treatment of multiple personality* (2nd ed.). New York: John Wiley & Sons.

Ross, C.A. (2000). *The trauma model: A solution to the problem of comorbidity in psychiatry*. Richardson, TX: Manitou Communications.

Ross, C.A. (2004). *Schizophrenia: Innovations in diagnosis and treatment*. New York: Haworth Press.

Ross, C.A. (2005). A proposed trial of dialectical behavior therapy and trauma model therapy. *Psychological Reports*, 96, 901-911.

Ross, C.A., & Ellason, J.W. (2001). Acute stabilization in an inpatient Trauma Program. *Journal of Trauma and Dissociation*, 2, 83-87.

Ross, C.A., & Haley, C. (2004). Acute stabilization and three-month follow-up in a trauma program. *Journal of Trauma and Dissociation*, 5, 103-112.