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A Naturalistic Study of Treatment Outcome for Patients with Dissociative Disorders

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Abstract

This study is based on archival data completed by 424 participants ranging in age from 13 to 68 who had received or who were receiving treatment for dissociative disorders with comorbid symptoms at various clinical settings in the United States. The participants completed measures describing their treatment and degree of relief for their symptoms. Seven separate regression analyses were conducted. In each analysis, 14 predictor (i.e., treatment) variables were entered simultaneously. The dependent variable in each analysis was a symptom cluster identified by factor analysis of the symptom checklist completed by participants. The results of this study identify the unique treatment variables that predict specific client outcomes and are consistent with extant research indicating that treatment improves client functioning.

Introduction

In the past 20 years there has been growing awareness of dissociative disorders (DD) and how to diagnose and treat them. As a result, we now have a greater understanding of the neurobiological and psychological response systems to trauma, have developed a range of measures to more accurately assess the symptomology associated

with dissociative disorders and Posttraumatic Stress Disorder (PTSD), have refined the criteria to diagnose these disorders with greater specificity and reduced overlap, and delineated a wide range of treatments that have been empirically validated to address the multiple symptoms associated with these disorders. In spite of these advances, there are gaps in our research and numerous issues have been posed by scholars that need to be addressed in order to advance our understanding of trauma.

Estimates of the prevalence rate for dissociative disorders (DD) vary and have been criticized for underestimating their occurrence. There are several reasons given for the lack of accuracy. First, although studies have indicated that between 5-20.7% of inpatients in clinical settings, and between 12-38% of outpatients are diagnosed with DD, many clients experiencing dissociative symptoms are overlooked or misdiagnosed. In particular, clients with borderline personality disorder, panic disorder, and psychotic disorder often present with comorbid DD (Brand et al., 2009). These comorbid symptoms appear along with the diagnosis, but are not part of that diagnosis and therefore are not listed in the data as having a DD. Another reason that the estimates for DD are low is that although dissociative symptoms are common in clients with PTSD and Complex PTSD, they are not currently part of the diagnostic criteria for these disorders in the *DSM-IV*. The exclusion of these symptoms in the diagnostic criteria means that clients do not receive treatment for them and also that our prevalence estimates for DD are inaccurate. Critics have argued for the need to revise the criteria for PTSD and Complex PTSD in the *DSM-V* to remedy this situation (Brand et al., 2009; Briere, Scott, & Weathers, 2005; Courtois, 2008; Courtois & Ford, 2009; Dalenberg & Carlson, 2012; Van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005). The aforementioned studies and prevalence estimates indicate that a significant proportion of our population is affected by trauma and dissociation and we are compelled to continue our efforts to identify and ameliorate the dysfunction and pain these clients endure.

Patients with dissociative disorders tend to require longer term treatment because they are polysymptomatic and present with high levels of comorbid issues that require intervention. These psychiatric issues may include treatment resistant depression and anxiety, borderline personality disorder (BPD), complex trauma, eating disorders, self-destructive behaviors, suicidality, substance and alcohol abuse, attachment and identity issues, guilt and self-blame, impulsivity, and relational issues. Thus, their treatment is multifaceted and includes several psychiatric medications (Brand et al., 2009; Briere & Scott, 2006; McMackin, Newman, Fogler, & Keane, 2012).

In 2005 the International Society for the Study of Dissociation (ISSD) put forth guidelines for the treatment of Dissociative Identity Disorder in Adults utilizing input from a panel of expert clinicians and researchers (International Society for the Study of Dissociation, 2005). The guidelines detail a carefully sequenced staged treatment approach. Each stage addresses specific issues and skills. The first stage of treatment is devoted to developing the therapeutic alliance, teaching the client strategies and skills to provide safety for the client (e.g., stabilizing self-other destructive behaviors and learning affect regulation techniques), educating the client about their diagnosis and symptoms, and learning ways to manage them. Once the alliance has been established and the client has stabilized and learned adequate coping skills, the therapy proceeds to the middle stages in which the client identifies and processes their history of abuse and trauma, including grieving related losses such as lost potential, and resolves strong feelings of

shame and rage that may emerge. As treatment progresses the client deals with their increased awareness of their dissociative states of mind or self -states and gains understanding of the functions they have served. Ultimately some DD patients may begin to integrate these self-states. In the final stages of treatment, self-states may continue to be integrated and the client moves forward in their healing as they build on their new insight. In this stage the client fine-tunes their developing skills in self- regulation, establishes trusting intimate relationships, may move forward in their career, and creates greater purpose and meaning in their life. The guidelines also suggest appropriate treatments for intervening with clients at each stage that are based on established best practices and research.

Issues in Treatment Outcome Research

A major debate in the field centers on the utility of various research designs to evaluate the treatment effectiveness for complex disorders such as DD and complex trauma disorders in which clients need multifaceted treatments to modify their symptoms. Critics have pointed out that randomized controlled trial studies (RCT), the gold standard for research, may not be applicable for these clients because of their rigid inclusion and exclusion criteria. RCT studies tend to focus on clients who present with pure disorders and exhibit a narrow range of symptoms. They also tend to utilize inpatient samples being treated by professionals specifically trained in a particular treatment modality or who adhere to prescribed treatment manuals. Thus patients with dissociative disorders are excluded from these studies because they have numerous symptoms requiring multifaceted treatments. Another criticism is that even when RCT studies have included clients who are poly-symptomatic such as clients dealing with PTSD, these studies exclude those clients who present with current alcohol or drug use, or who are at risk for suicide, or who are prescribed psychiatric medications. Thus, clients diagnosed with dissociative disorders or complex trauma are often excluded from these studies as well. As a result, the findings from these types of studies are rarely generalizable to patients in community settings who deal with multiple disorders and are poly-symptomatic (Brand et al., 2009; Foa, Keane, Friedman, & Cohen, 2009; Van der Kolk & Courtois, 2005).

The limitations of RCT research methodology have spurred researchers to expand their focus to determine the efficacy of treatments delivered to poly-symptomatic clients in naturalistic settings. These naturalistic studies research clients from community sites whose clinicians utilize a range of treatments to treat clients who present with co-occurring psychiatric disorders. Therefore, the results from these studies are generalizable to clients treated in the community. A limitation of these studies however, is that they cannot establish causality (Westen, Novotny, & Thompson-Brenner, 2004).

Outcome Research on Dissociative Disorder Clients

Although there is a paucity of research on dissociative disorder patients, the evidence is mounting that many DD patients respond to treatment and become less symptomatic over time. For example, research reveals that up to two-thirds of them integrate their personality states. Other studies report that DD patients use less psychotropic medication, report less depression, stress, anxiety, substance abuse, and

self-destructive behavior following treatment. These findings were substantiated in a recent seminal cross-sectional naturalistic study of 280 dissociative disorder clients and their therapists (N=292; Brand et al., 2009). The sample included participants from the U.S., Canada, and 17 countries outside of North America. The results revealed that patients in the later stages of treatment reported that they engaged in fewer self-injurious behaviors, had fewer hospitalizations, and experienced fewer symptoms of dissociation, post- traumatic stress disorder, and distress than patients in the initial stages of treatment. The later stage patients also reported higher levels of adaptive functioning (i.e., Global Assessment of Functioning) and better social, school, and work functioning. Therapists' reports indicated a similar pattern of better functioning across the stages of treatment. The effect sizes for Stage 5 versus Stage 1 differences in DD treatment were primarily in the medium to large range. In spite of these findings, the DD patients in the last stage of treatment still reported high levels of clinically elevated symptoms, indicating that a long course of treatment is common for them.

While the findings regarding treatment efficacy for dissociative disorder patients are encouraging, it is important to note the limitations in the extant research. Most studies are case studies focusing on a single client. In addition, many of the quantitative studies are narrow in their focus as well. Although they employed a variety of outcome measures, they did not assess the wide range of symptoms that dissociative patients present with. To date, researchers have typically looked at the pre-and post-scores on measures of dissociation to measure treatment progress or outcome for dissociative patients and on measures for PTSD to assess outcome for PTSD and trauma related symptoms commonly found comorbid in dissociative patients (Resick, Nishith, Weaver, Astin, & Feuer, 2002; Gantt & Tinnin, 2007). However, since these measures only assess a narrow range of symptoms, the effectiveness of treatment for patients with dissociative disorders who present with other symptoms such as eating disorders and PTSD have not been totally evaluated. Therefore, our understanding of effective treatments for these clients is limited.

The current study is based on archival data collected by the fourth author in 1992-1993. It was analyzed by the second author for her dissertation under the direction of the first and third authors in 2008. The purpose of the study was twofold. The first goal was to ascertain the treatment outcome on a large community sample of dissociative disorder patients, assessing for a variety of symptoms. The second goal was to determine what aspects of their treatment significantly predicted their outcome for specific symptoms. The study expands on the extant literature because it did not exclude any dissociative patients because of their substance abuse, suicide risk, psychosis, or comorbid disorder. In addition, it recruited patients who received treatment in community settings across the country. Although the data is archival, the study is relevant to our understanding of treatment for patients with dissociative disorders and complex trauma because the treatments assessed for in the analyses are included in the current stage model guidelines published in 2005 by the ISSD described above and other references cited in the introduction.

Method

Participants

The sample consisted of 424 participants ranging in age from 13 to 68 who had received or were receiving treatment for dissociative disorders with comorbid symptoms at various clinical settings in the United States. Of the sample, 95% was female. Their average length of time in therapy for dissociation was 29.7 months. The average number of days spent in the hospital per year was 20.6 days. Ninety-five percent of the participants were employed full time, and only 14% of the unemployed were unemployed due to disability.

Procedures

The archival data analyzed in this study was collected during 1992 and 1993. Participants were recruited by mailing material describing the study, forms to complete regarding demographic information, treatment variables, current functioning, and informed consent to 1,200 subscribers to the newsletter "*Many Voices*," which is a newsletter for individuals who have suffered trauma in childhood. Those individuals who fit the requirements of the study and who wanted to participate were asked to complete the questionnaires, sign the consent form, and return them in the stamped envelope provided. No respondents were excluded regardless of substance use, suicidality, psychosis or any type of comorbidity. The inclusion criteria were that they needed to be: 1) clinically diagnosed with dissociative disorder; 2) in treatment presently or in the past for dissociative disorder; and 3) remain anonymous. Approximately one-third of the subscribers (n=424) filled out the materials and mailed them back.

Measures

Demographic and clinical data form (Torem, 1992). This form assessed variables pertaining to demographics, level of functioning, the interaction style of the therapist, the focus of therapy, and treatment. Treatment variables assessed were age, length of time in treatment, use of medications, frequency of sessions, involvement of spouse or friend, focus of issues in therapy (i.e., past, present , future), nature of the therapist (i.e., warm and caring, listens well, understands me, clarifies boundaries, generates sense of safety, generates sense of stability), use of abreactions, and use of play therapy.

Symptom Relief Checklist for Dissociative Disorders **(Torem, 1992).** Items were developed by generating a list of symptoms prevalent with patients diagnosed with dissociative disorders along with comorbid symptoms often identified in the literature. The symptoms on the checklist were rated using a 10 point Likert scale ranging from -5 through + 5. The first 9 items on the checklist asked participants to rate the degree of change they experienced in therapy. If their condition had deteriorated on a symptom listed, the participants were to use a minus sign (-) on the scale ranging from - 1 to -5: (-1 = some deteriorating; and -5 = completely dysfunctional). If their symptoms had improved, participants were to use a + sign (+1 = some improvement;, +5 = excellent improvement). An item from this group was "therapy has allowed me to stay out of the hospital." The next 15 items related to the reduction of negative symptoms. They were also rated on a 10 point Likert scale ranging from -5 = worst I ever felt; -1 = slightly

worse; 1 = no relief; and +5 = full relief from symptom. These items included such statements as "therapy has helped reduce my symptoms of flashbacks." The checklist included a broad range of symptoms such as: feel good, improved day-to-day living, reduced flashbacks, reduced mood swings, reduced nightmares, reduced amnestic episodes, free of alcohol, and reduced frequency of attacks of anger and rage. In addition, participants rated their "overall level of satisfaction with therapy" using a Likert scale ranging from + 1= very satisfied to +5= most highly satisfied.

Because the *Symptom Relief Checklist for Dissociative Disorders* had never been factor analyzed, the measure was factor analyzed as part of the preliminary analyses. The factor analysis yielded 7 factors that were used in this study. They were: Factor One, Restoration of Hope and Self-Esteem; Factor Two, Reduction of PTSD Symptoms; Factor Three, Improved Personal Safety; Factor Four, Reduced Anger and Rage; Factor Five, Alcohol & Drug Free; Factor Six, Physical Health Improvement; and Factor Seven, Start Dating Again. The Chronbach alpha reliability coefficients for the seven factors ranged from .79 (Start Dating Again) through .96 (Reduced Anger and Rage). Three items were removed from the original measure. Thus, the revised checklist used in the study had 22 items rather than 25.

Data Analysis

In the preliminary analyses, the means and standard deviations for the scales used in this study were determined. Next, a correlation matrix was generated indicating the correlations between the variables. In the third analysis, the 25 items on the symptom relief checklist were factor analyzed as noted in the aforementioned description of the measure. Next, the hypotheses were tested to determine which treatment variables predicted symptom relief on each of the 7 factors underlying the symptom relief checklist. In each analysis the 14 predictors (treatment variables) were entered simultaneously. The dependent variable in each of the regression analyses was one of the 7 factors underlying the symptom relief checklist. The results for each of the analyses are reported separately. The predictor variables for each regression analysis were: Length of Treatment in months (LGT); Length of Sessions in minutes (LGS); Frequency of Sessions per month (FQS); Use of Medications (MEDS); Involvement of Spouse or Friend (ISF); Focus of Issues in Therapy (past, present, or future).; Therapist Permits Phone Contact (PHONE); Abreactions Used in Therapy (ABREAC); Use of Play (PLAY); Therapist's Professional Affiliation (TA); and Nature of Therapist Characteristics (NT).

Results

Hypothesis One

Hypothesis One predicted that the 14 treatment variables would explain a significant amount of variance on Factor 1 (Restored Hope & Self-Esteem, RHSE). The 14 predictor variables were entered simultaneously. The results are listed in Table 1. The results revealed that the overall model predicting Factor 1 was significant [$F_{(14,409)} = 2.45$, $p \leq .003$]. The full model explained 7.74% ($R^2 = .0774$) of the variance on Factor 1. The adjusted R^2 was .0458. The results further revealed that Nature of Therapist (NT) was significantly positively related to Factor I ($t=2.20$, $p \leq .03$); Use of Abreactions

Table 1

Factor 1 - Restored Hope & Self-Esteem (RHSE)

Analysis of Variance

Variables	β	SE	R^2	t	F	Prob.
MODEL 1			.08		2.45	.0025
AGE	.00	.06		.08		.9367
LGT	-.02	.02		-1.11		.2667
LGS	-2.08	1.17		-1.78		.0757
FQS	-.41	.22		-1.90		.0593
MEDS	**-3.19**	**.89**		**-3.58**		**.0004**
ISF	1.43	.88		1.61		.1076
TA	.03	.76		.03		.9725
NT	**.12**	**.06**		**2.20**		**.0284**
ABREAC	**.43**	**.20**		**2.16**		**.0314**
PLAY	.29	.22		1.30		.1932
PAST	-.02	.02		-.95		.3426
PRES	.02	.02		.99		.3209
FUTR	-.03	.03		-.83		.4070
PHONE	.01	.26		.05		.9618

Note: AGE=age, LGT=length of treatment in months, LGS=length of sessions in minutes, FQS=frequency of sessions, MEDS=use of medications, ISF=involvement of spouse/friend, TA= therapist's affiliation, NT=therapist's characteristics, ABREAC= use of abreactions in therapy, PLAY=use of play, PAST-PRES-FUTR= focus of therapy, PHONE=use of phone calling as a part of therapy

(ABREAC) also was significantly positively related to Factor 1 (t=2.16, p≤ .03); and Use of Medication (MEDS) was significantly negatively related to Factor 1 (t= -3.58, p≤ .0004). Therefore, Hypothesis One was supported.

Hypothesis Two

Hypothesis Two predicted that the 14 treatment variables would explain a significant amount of variance on Factor 2 (Reduced PTSD Symptoms, RPTSD). The 14 predictor variables were entered simultaneously. The results are listed in Table 2. The results revealed that the overall model predicting Factor 2 was significant [$F_{(14,409)}$ =2.13, p≤ .0098]. The full model explained 6.79% (R^2= .0679) of the variance on Factor 2. The adjusted R^2 was .0360. The results further revealed that MEDS was significantly negatively related to Factor 2 (t= -2.92, p≤ .004), while Involvement of Spouse/Friend (ISF) was significantly positively related to Factor 2 (t=2.01, p≤ .045). Therefore, Hypothesis Two was supported.

Table 2

Factor 2 - Reduced PTSD Symptoms (RPTSD)

Analysis of Variance

Variables	β	SE	R^2	t	F	Prob.
MODEL 2			.07		2.13	.0098
AGE	.08	.06		1.31		.1900
LGT	.03	.02		1.43		.1536
LGS	-1.55	.22		-1.27		.2047
FQS	-.27	.23		-1.19		.2354
MEDS	**-2.72**	**.93**		**-2.92**		**.0037**
ISF	**1.86**	**.92**		**2.01**		**.0447**
TA	.65	.80		.82		.4142
NT	.03	.06		.50		.6152
ABREAC	.28	.21		1.35		.1787
PLAY	.37	.23		1.61		.1093
PAST	-.02	.02		-.91		.3632
PRES	.03	.03		1.19		.23
FUTR	.02	.04		.71		.4768
PHONE	.25	.27		.90		.3689

Note: AGE=age, LGT=length of treatment in months, LGS=length of sessions in minutes, FQS=frequency of sessions, MEDS=use of medications, ISF=involvement of spouse/friend, TA= therapist's affiliation, NT=therapist's characteristics, ABREAC= use of abreactions in therapy, PLAY=use of play, PAST-PRES-FUTR= focus of therapy, PHONE=use of phone calling as a part of therapy

Hypothesis Three

Hypothesis Three stated that the 14 treatment variables would explain a significant amount of variance on Factor 3 (Improved Personal Safety, IPS). The 14 variables were entered simultaneously. The results are listed in Table 3. The results revealed that the overall model predicting Factor 3 was significant [$F_{(14, 409)}$=2.40, p≤ .0031]. The full model explained 7.59% (R^2= .0759) of the variance on Factor 3. The adjusted R^2 was .0443. The results further indicated that Focus on the Present (PRES) was significantly negatively related to Factor 3 (t= -2.08, p≤ .038); Focus on the Future (FUTR) was significantly positively related to Factor 3 (t=2.03, p≤ .043); and Age (AGE) was significantly negatively related to Factor 3 (t= -2.15, p≤ .031). Therefore, Hypothesis Three was supported.

Table 3

Factor 3 - Improved Personal Safety (IPS)

Analysis of Variance

Variables	β	SE	R^2	t	F	Prob.
MODEL 3			.08		2.40	.0031
AGE	**-.11**	**.05**		**-2.17**		**.031**
LGT	.03	.05		.08		.933
LGS	1.75	1.00		1.75		.081
FQS	.09	.18		.50		.619
MEDS	1.15	.76		1.51		.132
ISF	-.02	.75		-.02		.981
TA	.88	.65		1.36		.180
NT	.00	.05		.08		.933
ABREAC	.04	.17		.25		.807
PLAY	.26	.19		1.39		.166
PAST	-.02	.01		-.50		.136
PRES	**-.04**	**.02**		**-2.08**		**.038**
FUTR	**.06**	**.03**		**2.03**		**.043**
PHONE	.33	.22		1.46		.145

Note: AGE=age, LGT=length of treatment in months, LGS=length of sessions in minutes, FQS=frequency of sessions, MEDS=use of medications, ISF=involvement of spouse/friend, TA= therapist's affiliation, NT=therapist's characteristics, ABREAC= use of abreactions in therapy, PLAY=use of play, PAST-PRES-FUTR= focus of therapy, PHONE=use of phone calling as a part of therapy

Hypothesis Four

Hypothesis Four stated that the 14 treatment variables would explain a significant amount of variance on Factor 4 (Reduced Anger & Rage, RAR). The 14 variables were entered simultaneously. The results are listed in Table 4. The results revealed that the overall model predicting Factor 4 was significant [$F_{(14, 409)} = 1.73$, $p \leq .0479$]. The full model explained 5.58% ($R^2 = .0558$) of the variance on Factor 4. The adjusted R^2 was .0235. The results further revealed that Therapist Affiliation (TA) was significantly positively related to Factor 4 ($t = 1.98$, $p \leq .048$) and Involvement of Spouse/Friend (ISF) also was significantly positively related to Factor 4 ($t = 2.26$, $p \leq .025$). Therefore, Hypothesis Four was supported.

Hypothesis Five

Hypothesis Five stated that the 14 treatment variables would explain a significant amount of variance on Factor 5 (Alcohol & Drug Free, ADF). The 14 variables were entered simultaneously. The results are listed in Table 5. The results revealed that the

Table 4

Factor 4 - Reduced Anger & Rage (RAR)

Analysis of Variance

Variables	β	SE	R^2	t	F	Prob.
MODEL 4			.06		1.73	.048
AGE	.01	.04		.28		.783
LGT	.01	.01		.60		.546
LGS	-.93	.74		-1.25		.212
FQS	.18	.14		1.28		.200
MEDS	-1.04	.57		-1.84		.067
ISF	**1.27**	**.56**		**2.26**		**.025**
TA	**.96**	**.48**		**1.98**		**.048**
NT	.01	.04		.17		.867
ABREAC	.09	.13		.74		.461
PLAY	.01	.14		.08		.935
PAST	.00	.01		-.32		.750
PRES	.02	.01		1.41		.160
FUTR	.02	.02		1.06		.288
PHONE	.07	.17		.39		.694

Note: AGE=age, LGT=length of treatment in months, LGS=length of sessions in minutes, FQS=frequency of sessions, MEDS=use of medications, ISF=involvement of spouse/friend, TA= therapist's affiliation, NT=therapist's characteristics, ABREAC= use of abreactions in therapy, PLAY=use of play, PAST-PRES-FUTR= focus of therapy, PHONE=use of phone calling as a part of therapy

overall model predicting Factor 5 was significant with [$F_{(14,409)} = 1.80$, $p \leq .0371$]. The full model explained 5.79% ($R^2 = .0579$) of the variance on Factor 5. The adjusted R^2 was .0257. The results further revealed that Abreactions Used in Therapy (ABREAC) was significantly positively related to Factor 5 (t=2.03, p≤ .043) while AGE was significantly negatively related to Factor 5 (t= -2.01, p≤ .046).Therefore, Hypothesis Five was supported.

Hypothesis Six

Hypothesis Six stated that the 14 treatment variables would explain a significant amount of variance on Factor 6 (Physical Health Improvement; PHI). The 14 variables were entered simultaneously. The results are listed in Table 6. The results revealed that the overall model predicting Factor 6 was significant [$F_{(14,409)} = 1.68$, $p \leq .057$]. The full model explained 5.44% ($R^2 = .0544$) of the variance on Factor 6. The adjusted R^2 was .0220. No individual variables were significantly related to Factor 6, which indicated that all the variables together (i.e. shared variance) were significantly related to Factor 6. Therefore, Hypothesis Six was supported.

Hypothesis Seven

Hypothesis Seven stated that the 14 treatment variables would explain a significant amount of variance on Factor 7 (Started Dating Again, SDA). The 14 variables were entered simultaneously. The results are listed in Table 7. The results revealed that the overall model predicting Factor 7 was significant [$F_{(14, 409)}$=1.97, p≤ .0187]. The full model explained 6.32% (R^2= .0632) of the variance on Factor 7. The adjusted R^2 was .0312. The results further indicated that the Past (PAST) was significantly negatively related to Factor 7 (t = -2.01, p≤ .045); AGE was significantly negatively related to Factor 7 (t= -2.29, p≤ 022); and ISF was significantly negatively related to Factor 7 (t = -2.01, p ≤ .045). Therefore, Hypothesis Seven was supported.

Table 5

Factor 5 - Alcohol & Drug Free (ADF)

Analysis of Variance

Variables	β	SE	R^2	t	F	Prob.
MODEL 5			.06		1.80	.037
AGE	**-.10**	**.05**		**-2.01**		**.046**
LGT	.01	.02		.73		.467
LGS	1.67	1.02		1.63		.104
FQS	.29	.19		1.53		.128
MEDS	.74	.78		.95		.345
ISF	-.63	.77		-.82		.414
TA	-.14	.67		-.21		.835
NT	.03	.05		.67		.504
ABREAC	**.35**	**.17**		**2.03**		**.043**
PLAY	-.03	.19		-.17		.862
PAST	.00	.02		.07		.942
PRES	-.01	.02		-.75		.453
FUTR	.04	.03		1.46		.146
PHONE	.42	.23		1.85		.065

Note: AGE=age, LGT=length of treatment in months, LGS=length of sessions in minutes, FQS=frequency of sessions, MEDS=use of medications, ISF=involvement of spouse/friend, TA= therapist's affiliation, NT=therapist's characteristics, ABREAC= use of abreactions in therapy, PLAY=use of play, PAST-PRES-FUTR= focus of therapy, PHONE=use of phone calling as a part of therapy

Discussion

The results of this study are important in that they identify the unique treatment variables that predict specific client outcomes for clients with dissociative disorders. For

example, both Use of Abreaction and Nature of Therapist Characteristics were significantly positively related to Factor 1, Restored Hope and Self-Esteem. Thus, therapist characteristics such as conveying warmth and caring, listening and understanding the client, wanting the client to get well, generating a sense of safety and stability, maintaining boundaries, and being flexible with length of sessions, as well as helping the client process strong feelings, instills client hope and raises self-esteem. In contrast, the use of medication was significantly negatively associated with raising hope. These findings are consistent with the vast literature indicating that the relationship between therapist and client plays a significant role in client outcome (Cloitre, Koenen, Cohen, & Han, 2002; Yohani & Larsen, 2012). The negative association between

Table 6

Factor 6 - Physical Health Improvement (PHI)

Analysis of Variance

Variables	β	SE	R^2	t	F	Prob.
MODEL 6			.05		1.68	.057
AGE	.07	.04		1.75		.080
LGT	.02	.01		1.42		.158
LGS	-.02	.79		-.03		.978
FQS	-.06	.15		-.40		.689
MEDS	-.63	.61		-1.05		.295
ISF	.99	.60		1.65		.100
TA	-.33	.52		-.64		.520
NT	.05	.04		1.29		.197
ABREAC	.19	.14		1.42		.157
PLAY	.15	.15		1.00		.320
PAST	.00	.01		-.39		.698
PRES	.02	.02		1.08		.281
FUTR	.03	.03		1.21		.228
PHONE	.16	.18		.89		.377

Note: AGE=age, LGT=length of treatment in months, LGS=length of sessions in minutes, FQS=frequency of sessions, MEDS=use of medications, ISF=involvement of spouse/friend, TA= therapist's affiliation, NT=therapist's characteristics, ABREAC= use of abreactions in therapy, PLAY=use of play, PAST-PRES-FUTR= focus of therapy, PHONE=use of phone calling as a part of therapy

medication and hope is puzzling. It may be that reliance on medication for patients may signal to them they may never recover without the medication and thus reduce their self-esteem.

The results further revealed that use of MEDS was significantly negatively related to Factor 2, Reduced PTSD Symptoms, which is consistent with other research on PTSD. Studies indicate that medication helps alleviate some PTSD symptoms (e.g., anxiety and

depression). In this study Factor 4 also included items on flashbacks, eating disorders, and nightmares that medication did not alleviate, which explains the negative association found. There is more research needed to study the effectiveness of medications alone and in conjunction with various treatment modalities. Involvement of Spouse/Friend also was significantly positively related to Reduced PTSD. This finding also concurs with prior research reporting that social support is associated with positive client outcome.

The results related to Improved Personal Safety (Factor 3) were puzzling. The negative association with AGE makes sense because we encounter more health problems with age. However, other items such as reduced suicide attempts and reduced self-mutilation were also negatively associated with age, indicating older clients in this sample did not reduce these symptoms. Focusing on the present also did not reduce these symtoms, whereas focusing on the future was associated with reducing them. This is

Table 7

Factor 7 - Started Dating Again (SDA)

Analysis of Variance

Variables	β	SE	R^2	t	F	Prob.
MODEL 7			.06		1.97	.019
AGE	**-.04**	**.02**		**-2.29**		**.022**
LGT	.00	.01		.13		.900
LGS	-.23	.32		-.72		.472
FQS	-.11	.06		-.89		.059
MEDS	-.38	.25		-1.53		.126
ISF	**-.49**	**.24**		**-2.01**		**.045**
TA	.04	.21		.19		.850
NT	.00	.02		-.27		.786
ABREAC	.10	.06		1.78		.080
PLAY	.11	.06		1.84		.066
PAST	**-.01**	**.00**		**-2.01**		**.045**
PRES	.00	.01		-.28		.779
FUTR	.01	.01		1.21		.227
PHONE	-.06	.07		-.84		.403

Note: AGE=age, LGT=length of treatment in months, LGS=length of sessions in minutes, FQS=frequency of sessions MEDS=use of medications, ISF= involvement of spouse/friend, TA= therapist's affiliation, NT=therapist's characteristics, ABREAC= use of abreactions in therapy, PLAY=use of play, PAST-PRES-FUTR= focus of therapy, PHONE=use of phone calling as a part of therapy

consistent with research in Positive Psychology and hope (Yohani & Larsen, 2012). Focusing on the future instills a sense of hope that they will improve.

The finding that both Therapist Affiliation and Involvement of Spouse/Friend was significantly positively related to Factor 4, Reduced Anger and Rage also makes sense. The participants indicated that they tended to be seen by therapists with advanced degrees (i.e., MD or PhD) who could prescribe medication if needed and who may have had advanced training in working with clients dealing with extreme rage and impulse control issues. Involving a friend in therapy increases feelings of support and helps foster trust and better communication that in turn enhance one's ability to feel secure and try out new coping skills.

The findings regarding reducing alcohol & drug use (Factor 5) are also noteworthy. The results revealed that Use of Abreactions in therapy was positively associated with reduced alcohol and drug use. Abreactions in therapy may reduce trauma and flashbacks resulting in less need for the patient to drink and use drugs to avoid painful feelings. Age, on the other hand, was significantly negatively related to Factor 5, inferring that it is much harder to work with addiction to drugs and alcohol as patients get older and have maintained their negative avoidant coping mechanisms longer.

The finding that the treatment variables together were significantly positively related to Factor 6 (Physical Health Improvement), is consistent with the extant literature on models of growth after trauma. These models posit that as clients' psychological functioning improves, so does their physical functioning. Thus, it is not surprising that the clients in this study noted they sleep better, experience less headache pain, and experience better overall health as treatment progresses.

Finally, Age, Focus on the Past, and Involvement of Spouse/ Friend were each significantly negatively associated with Factor 7, Start Dating Again. This implies that with older clients focusing on the present and future in which the client puts meaningful activities and intimate relationships as goals to achieve in their life, clients are more likely to start dating again. This is consistent with models of growth after trauma.

In summary, the findings in this study related to treatment efficacy for clients with dissociative disorders support prior outcome studies indicating that treatment does improve client functioning. They also are consistent with prior literature indicating that for dissociative patients, treatment is long term as clients deal with entrenched issues and negative coping patterns. Although the clients in this study reported better general functioning and better health, they did not report relief for all their symptoms. Even though the findings of this study are informative and intriguing, it is important to note limitations in the research design. A major weakness is that there are no therapist ratings to verify client reports or to verify client diagnoses. In addition, information regarding client demographics such as race is lacking.

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