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## Differentiating “types” of treatment dropout: Nonstarters in an RCT of prolonged exposure versus sertraline

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### Abstract

Despite effective interventions for posttraumatic stress disorder (PTSD), many patients prematurely drop out. Differentiating “types” of dropout at various stages of treatment may improve our ability to predict and prevent attrition. Using data from a doubly randomized preference trial, this study examined patient dropout prior to treatment and compared these “nonstarters” with treatment starters and in-treatment dropouts. Patients ( $N = 200$ ) with chronic PTSD were randomized to “choice” (prolonged exposure [PE] or sertraline) or “no choice” (re-randomized to PE or sertraline) and received up to 10 weeks of treatment. Overall dropout rate was 33.0% ( $n = 66$ ). A substantial minority were nonstarters ( $n = 19$ ; 28.8%). Relative to patients who began treatment, nonstarters reported less severe PTSD symptomatology ( $p = .03$ ,  $d = 0.57$ ) and were less likely to have received their preferred treatment ( $p < .001$ ). These differences remained even when comparing nonstarters to patients that began treatment but eventually dropped out. Differences in beliefs (i.e., perceived credibility) toward one treatment versus the other were also linked to pretreatment dropout. Reasons underlying dropout likely differ during various treatment stages. Better understanding risk factors for types of dropout may inform strategies to boost engagement and retention, ultimately improving patient outcomes.

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## Keywords

PTSD treatment; prolonged exposure; sertraline; treatment dropout

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Trauma-focused psychotherapy such as prolonged exposure (PE) and pharmacotherapy such as sertraline are effective interventions for posttraumatic stress disorder (PTSD; Watts et al., 2013), yet a considerable subset of patients prematurely drop out (Kehle-Forbes, Meis, Spont, & Polusny, 2016; Lewis, Roberts, Gibson, & Bisson, 2020; Lurie & Levine, 2010). While definitions of dropout vary, it is generally regarded as a unilateral discontinuation of treatment prior to meeting treatment goals, completing a specified number of sessions, or completing a manualized protocol (Swift & Greenberg, 2014). From the intent to treat perspective central to treatment research, dropout encompasses any attrition that occurs following randomization (Gutner, Gallagher, Baker, Sloan, & Resick, 2016; Schnurr, 2007). In the vast majority of cases, dropout likely reflects a negative outcome, precluding patients from receiving a sufficient therapy dose to optimally benefit. Dropout also strains providers' availability and clinics' ability to serve others in need, negatively impacting available resources and diminishing treatment cost-effectiveness (Barrett, Chua, Crits-Cristoph, Gibbons, & Thompson, 2008). Improving retention thus provides a clear target for optimizing current interventions.

Dropout occurs for a variety of reasons, and reliably identifying patients that are at greatest risk for dropout is difficult. One potential avenue to better understand dropout is differentiating between what are likely different *types* of dropout. For example, reasons underlying dropout are likely meaningfully different among patients who attend an intake appointment but never attend a therapy session versus those who begin treatment but eventually drop out (Gibbons et al., 2019; Gutner et al., 2016). Accordingly, researchers have advocated studying attendance across different phases of treatment (Barrett et al., 2008; Gibbons et al., 2019). Dropout research has often examined patients that begin but prematurely discontinue treatment and has not drawn the distinction among dropouts between treatment starters and nonstarters. Furthermore, little is known about patients who—despite seeking and consenting to mental health services—decline treatment, though these nonstarters comprise a meaningful minority of dropouts across study samples and designs, including randomized trials (e.g., Gutner et al., 2016) and clinics (e.g., Kehle-Forbes et al., 2016). Additionally, early dropout from PTSD treatment may be particularly negative, as PTSD is unlikely to remit without intervention (Morina, Wicherts, Lobbrecht, & Priebe, 2014).

Research on predictors of pretreatment dropout is scarce. However, a proxy for pretreatment dropout may be studies examining initiation of evidence-based PTSD interventions, where predictors have included negative treatment beliefs, barriers and decreased access to resources, greater impairment and symptom severity, demographic characteristics, and low social support (e.g., DeViva et al., 2016; Hundt et al., 2015; Keller & Tuerk, 2016; Rosen et al., 2019). Treatment preference has also been broadly tied to dropout (Swift & Callahan, 2009), and given the close links between treatment beliefs and preferences (Zoellner, Feeny, & Bittinger, 2009), it is possible that preferences may be associated with pretreatment

dropout as well. Overall, however, the majority of literature on treatment initiation has examined a narrow sample of patients, chiefly effectiveness research with veterans receiving psychotherapy in Veterans Affairs clinic settings (e.g., DeViva et al., 2016; Hundt et al., 2015; Keller & Tuerk, 2016; Rosen et al., 2019). Furthermore, studies of pretreatment dropout have primarily emphasized psychotherapy, limiting current understanding of its occurrence in pharmacotherapy.

Collapsing dropouts across all phases of treatment likely limits the specificity and nuance of understanding dropout. Ascertaining whether there are types of dropout, as well as the specific risk factors for each type, is critical for identifying at-risk patients and developing strategies that may improve retention. It is currently unclear how to best intervene early in treatment to boost retention and for which specific patients these efforts may be most helpful. The current study thus explored types of dropout among patients receiving PE or sertraline as part of a doubly randomized preference trial (Zoellner, Roy-Byrne, Mavissakalian, & Feeny, 2019), with a specific focus on identifying factors associated with pretreatment dropout. Pretreatment dropout, or nonstarters, were defined as patients who attended an intake and randomization session, consented to and were scheduled for treatment, but did not attend a single session. Predictors with empirical or theoretical support for poor treatment engagement were emphasized. This study mirrored recent literature examining dropout at different stages of treatment (Gibbons et al., 2019) by drawing from a modified framework articulated by Barrett et al. (2008) via Anderson (1995) for health service utilization. This model outlined several clusters of various factors likely to impact engagement and dropout including: Patient Characteristics (e.g., age, race, education); Enabling Factors (e.g., social support, income, relationship status); Need Factors (e.g., psychopathology, impairment); and Perceptions of Mental Health and Treatment (e.g., treatment history; preferences). In line with literature on treatment initiation and dropout, we hypothesized that patients with more negative beliefs about the credibility of treatments, higher symptom severity, lower perceived social support, and patients assigned to their non-preferred treatment would be more likely to drop prior to their first treatment session. To better ascertain whether there were different “types” of dropout in our sample, exploratory aims also compared treatment nonstarters with patients that dropped out during treatment.

## Method

### Participants

Two hundred adult men and women (ages 18 to 65) with a primary diagnosis of DSM-IV chronic PTSD (American Psychiatric Association [APA], 2000) participated in a multi-site doubly randomized treatment trial and received PE or sertraline for chronic PTSD. Patients were predominantly female (75.5%), Caucasian (65.5%), and without a college degree (70.0%). Patients typically reported moderate to severe chronic PTSD and extensive trauma history, with an average number of 9.05 ( $SD = 6.23$ ) other prior Criterion A events. Reported index traumas were diverse, and average time since index trauma was 11.97 years ( $SD = 12.69$ ). The majority were diagnosed with at least one comorbidity (67.0%), with over half (54.0%) diagnosed with comorbid major depressive disorder. Additional trial details are reported in the main outcome paper (Zoellner et al., 2019).

## Measures

**Diagnostic Measures.**—The Structured Clinical Interview for DSM-IV (SCID-IV; First, Spitzer, Gibbon, & Williams, 1995) was used to determine DSM-IV Axis I comorbidity. The PTSD Symptom Scale-Interview (PSS-I; Foa, Riggs, Dancu, & Rothbaum, 1993), a 17-item clinician-rated measure, assessed PTSD diagnosis per DSM-IV-TR (APA, 2000) criteria and PTSD severity. PSS-I items were rated based on frequency and/or severity for the past two weeks, with higher scores indicating greater PTSD severity. The PSS-I demonstrates good validity and reliability (Foa et al., 1993). In the main trial, inter-rater reliability was high for severity scores (ICC = .99).

**Patient Characteristics.**—Variables within this cluster included one continuous variable, *age*, and several dichotomous variables, including *sex* (female vs. male), *race* (ethnoracial minority vs. not), *employment* (full-time employment or student status vs. not), and *education* (college degree vs. not).

**Enabling Factors.**—This cluster included a continuous variable (*social support*), and two dichotomous variables, *income* (earning <\$20,000/year vs. 20,000/year) and *relationship status* (married or cohabitating vs. not). To assess social support, at randomization patients completed the Inventory of Socially Supportive Behaviors (ISSB; Barrera, 1981), a well-validated 40-item self-report measure assessing tangible and intangible assistance from others over the preceding month; higher scores reflect greater perceived social support.

**Need Factors.**—Variables within this cluster indexed baseline psychopathology and functioning, which included *PTSD symptom severity* (via PSS-I) and *depression symptom severity* (via Hamilton Rating Scale for Depression [HAM-D<sub>24</sub>]; Hamilton, 1960) both completed at intake, and *functioning* (via Sheehan Disability Scale [SDS; Sheehan, 1983], completed at randomization).

**Perceptions of Mental Health and Treatment.**—This cluster included three binary variables (yes/no): *mismatch*, *prior or current psychotherapy history*, and *prior or current pharmacotherapy history*. Patients were categorized by whether they were scheduled to receive their preferred (match) or non-preferred (mismatch) treatment.

**Treatment Beliefs.**—Beliefs were assessed for both PE and sertraline using measures adapted for each treatment that combined credibility ratings (*Credibility Scale* [CS; Addis & Carpenter, 1999]) and personal reactions to each treatment (*Personal Reactions to Rationale* [PRR; Addis & Carpenter, 1999]) into one score; higher scores reflect more positive attitudes and beliefs toward each treatment. After viewing standardized treatment rationales for each treatment, patients completed beliefs measures toward each potential treatment condition prior to randomization. For each patient, a *beliefs discrepancy* variable was created, where a patient's beliefs scores toward sertraline was subtracted from their beliefs scores toward PE. This belief variable was operationalized in this manner to create a score for each patient that captured the *differential* magnitude of a patient's beliefs toward the two treatments within the trial. Centered on zero, positive scores reflected more positive beliefs

toward PE and negative scores reflected more positive beliefs toward sertraline. Scores close to zero reflected comparable attitudes and beliefs toward both treatment options.

**Outcome Variables.**—Patients that did not complete treatment were differentiated as nonstarters (patients randomized but did not begin treatment) and dropouts (patients began treatment but attended <7 sessions). Treatment completers were defined as patients that attended at least 7 sessions. Starters were defined as patients beginning treatment, including both in-treatment dropouts and completers. These definitions were consistent with the main trial (Zoellner et al., 2019).

## Treatments

**Prolonged exposure (PE; Foa, Hembree, & Rothbaum, 2007).**—PE consisted of 10 weekly, 90–120 min sessions including psychoeducation about common reactions to trauma, breathing retraining, in vivo exposure, imaginal exposure, processing of imaginal exposure, and weekly homework assignments. Master’s and Doctoral level clinicians conducted the PE sessions. PE sessions were rated for therapist competence on a 3-point scale (1 = *Inadequate*, 3 = *Adequate or Better*). Overall, PE therapist competence was very good ( $M = 2.73$ ,  $SD = 0.32$ ).

**Sertraline.**—Treatment consisted of 10 weekly 30–45 min sessions, monitored by a study psychiatrist who followed a treatment manual (Marshall, Beebe, Oldham, & Zaninelli, 2001). Board certified psychiatrists conducted sertraline sessions. Sertraline was adjusted according to a standardized titration algorithm, starting at 25 mg/day and proceeding up to 200 mg/day, if indicated and tolerated.

## Procedure

Independent evaluators blind to eventual treatment assignment conducted an in-person intake interview to determine study eligibility. Evaluators administered the PSS-I to confirm PTSD diagnosis, the SCID-IV to assess other diagnoses, and the HAM-D<sub>24</sub> to assess depression severity. Prior to randomization, eligible patients viewed treatment rationales for PE and sertraline, including information about treatment efficacy, an analogy of how the treatment works, and a description of treatment procedures and potential side effects. Order, delivery (psychiatrist vs. psychologist), and gender of the provider for the treatment rationales were counterbalanced. Participants then made confidential treatment choices specifying preference for PE or sertraline and completed measures of credibility (CS; PRR) for each treatment. Patients were then randomized to choice (PE or sertraline) or no choice (re-randomized to PE or sertraline) and learned their treatment condition. As part of the randomization visit, patients completed baseline measures (ISSB). Patients were then scheduled to receive up to 10 weeks of PE or sertraline.

## Data Analytic Plan

Missing data were minimal, ranging from 0 to 3%, with almost all measures having no missing data. Tests used a dichotomous outcome variable (dropped out prior to treatment [nonstarters]) vs. did not drop out prior to treatment [starters]). Although unequal variances were not observed (i.e., Levene’s test), given the distribution of the outcome variable and

minimal research base on nonstarters in clinical trials, a conservative analytic approach was taken. Specifically, a series of descriptive tests (i.e., chi-squares with Yates's continuity correction and Welch's *t*-tests, given unequal groups) were implemented rather than logistic regression models. Given sample size constraints, treatment moderation of the links between predictors and pretreatment dropout was not formally examined. However, visual inspection of groups, ANOVA with interaction terms for continuous predictors, and loglinear models for categorical predictors suggested no differential relationships between predictors and pretreatment dropout by treatment condition. Because beliefs measures were uniquely tethered to treatment condition, to maximize the specificity and interpretability of these measures, beliefs were examined within each treatment condition via Welch's *t*-tests, rather than across the trial with treatment conditions collapsed. Lastly, given study aims to understand *types* of dropout, it was determined *a priori* to run post-hoc tests comparing nonstarters against in-treatment dropouts for any identified significant variable in initial tests comparing starters and nonstarters.

## Results

Patients in PE and sertraline attended an average of 7.04 sessions ( $SD = 3.65$ ). The overall dropout rate in the trial was 33% ( $n = 66$ ), 19 (28.8%) of whom were nonstarters (PE  $n = 7$ ; sertraline  $n = 12$ ). Chi-square tests confirmed that rates of pretreatment ( $p = .09$ ) and in-treatment dropout ( $p = .95$ ) did not reliably differ between treatment conditions.

### Variables Associated with Nonstarters

No variables within the Patient Characteristics and Enabling Factors clusters were associated with pretreatment dropout. For the Need Factors cluster, baseline PTSD severity was linked to pretreatment dropout, such that nonstarters reported lower PTSD severity ( $M = 26.32$ ,  $SD = 5.94$ ) compared to starters ( $M = 29.91$ ,  $SD = 6.68$ ),  $t(23.1) = 2.48$ ,  $p = .02$ ,  $d = 0.57$ . In the Perceptions of Mental Health and Treatment cluster, mismatch was robustly associated with pretreatment dropout, where nonstarters (68.4%) were much more likely to have been randomized to their non-preferred treatment compared to starters (21.0%),  $\chi^2(1, N = 200) = 17.94$ ,  $p < .001$ ,  $phi = .32$ .<sup>1</sup>

The beliefs discrepancy variable was also closely related to pretreatment dropout. For patients potentially receiving PE, starters ( $M = 16.86$ ,  $SD = 18.93$ ) compared to nonstarters ( $M = -0.83$ ,  $SD = 15.94$ ) reported more positive differential beliefs toward PE relative to sertraline,  $t(5.81) = 2.62$ ,  $p = .04$ ,  $d = 1.01$ . For patients potentially receiving sertraline, nonstarters ( $M = 15.24$ ,  $SD = 15.49$ ) compared to starters ( $M = -3.49$ ,  $SD = 21.64$ ) also reported more positive differential beliefs toward PE compared to sertraline,  $t(19.25) = -3.63$ ,  $p = .002$ ,  $d = 1.00$ .

<sup>1</sup>To confirm stability of findings when accounting for shared variance between variables, a brief series of logistic regression models was run, using a dichotomous outcome variable (dropped out prior to treatment [nonstarters] vs. did not drop out prior to treatment [starters]). Mirroring prior dropout literature (Gibbons et al., 2019), regression models examined predictors of pretreatment dropout within each cluster of predictors. A modified version of the approach outlined by Fournier and colleagues (2009) was utilized, where an initial model with all variables of a given cluster was tested, after which any significant predictors identified within a cluster were entered into a final model across clusters. Mismatch and PTSD severity emerged as significant predictors. The final model was significant  $\chi^2(3, N = 200) = 23.53$ ,  $p < .001$ , where mismatch ( $OR = 9.11$ ,  $b = -2.08$ ,  $SE = 0.55$ ,  $p < .001$ ) and baseline PTSD severity ( $OR = 0.51$ ,  $b = -0.71$ ,  $SE = 0.30$ ,  $p = .02$ ) predicted pretreatment dropout.

## Comparison of Nonstarters vs. In-Treatment Dropouts

Significant variables from primary analyses were also compared to in-treatment dropouts, reflecting a similar pattern of results. Nonstarters ( $M = 26.32$ ,  $SD = 5.94$ ) reported less PTSD severity relative to in-treatment dropouts ( $M = 30.79$ ,  $SD = 6.32$ ),  $t(35.40) = -2.72$ ,  $p = .01$ ,  $d = 0.73$ . Chi-square analyses indicated that nonstarters (68.4%) were also more likely to have not received their preferred treatment compared to in-treatment dropouts (27.7%),  $\chi^2(1, N = 66) = 7.79$ ,  $p = .005$ ,  $\phi = -.38$ .

The differential beliefs variable also demonstrated a similar pattern of findings when comparing nonstarters to in-treatment dropouts. In PE, in-treatment dropouts ( $M = 16.95$ ,  $SD = 22.85$ ) compared to nonstarters ( $M = -0.83$ ,  $SD = 15.94$ ) reported stronger differential beliefs toward PE relative to sertraline,  $t(9.37) = -2.32$ ,  $p = .04$ ,  $d = 0.90$ . In sertraline, nonstarters ( $M = 15.24$ ,  $SD = 15.49$ ) compared to in-treatment dropouts ( $M = 1.57$ ,  $SD = 29.57$ ) reported stronger differential beliefs toward PE compared to sertraline; however, this effect was not statistically significant,  $t(21.96) = 1.55$ ,  $p = .14$ ,  $d = 0.58$ . These results should be interpreted cautiously given sample size limitations associated with looking within each treatment condition with treatment completers excluded.<sup>2</sup>

## Discussion

The current study provides preliminary evidence of factors that may be especially relevant for dropout at the earliest stages of PTSD treatment. Lower assessor-rated baseline PTSD severity, not receiving one's preferred treatment, and larger differences in perceived credibility toward one treatment over the other (i.e., less positive differential beliefs toward PE relative to sertraline) were strongly associated with pretreatment dropout. Furthermore, the significance of both treatment preferences and symptom severity persisted even when comparing nonstarters to eventual dropouts, potentially reflecting the temporal significance of these factors. Taken together, the current study argues for the utility of identifying "types" of patient dropout and the risk factors that may define them.

Beliefs regarding treatment credibility and the overall perceived "fit" of treatment may be particularly salient to engagement at the earliest stages of the treatment process. Patients with lower assessor-rated PTSD severity were less likely to begin treatment. It is possible this reflects patients' perceptions of reduced need for treatment (Fleming, Kholodkov, Dillon, Belvet, & Crawford, 2018) or perceived ability to manage symptoms on their own (Hoge et al., 2014), both of which have been associated with less engagement early in treatment. However, it is important to also consider the clinical significance of the relatively small differences in means (3.59) in this comparison, despite the moderate effect size, as well as the relatively small number of nonstarters and unequal samples between groups.

<sup>2</sup>Nonstarters and in-treatment dropouts were also compared separately with completers on the same variables as primary analyses. The following were significant results of these comparisons; all other comparisons were non-significant.

Nonstarters were more likely to have received their nonpreferred treatment (68.4%) relative to completers (18.7%),  $\chi^2(1, N = 153) = 19.49$ ,  $p < .001$ . Nonstarters ( $M = 26.32$ ,  $SD = 5.94$ ) compared with completers ( $M = 29.60$ ,  $SD = 6.80$ ) also reported less severe PTSD severity ( $t(25.21) = 2.22$ ,  $p = .04$ ,  $d = 0.51$ ).

In-treatment dropouts were more likely to identify as an ethnracial minority (51.1%) compared with completers (28.4%),  $\chi^2(1, N = 181) = 7.00$ ,  $p = .008$ . In-treatment dropouts were also more likely to be male (38.3%) compared with completers (20.9%),  $\chi^2(1, N = 181) = 4.68$ ,  $p = .03$ .

Patient preferences (e.g., Swift & Callahan, 2009) and treatment-related beliefs (Constantino, Arnkoff, Glass, Ametrano, & Smith, 2011) have been consistently linked to outcomes—including dropout—across disorders and interventions. Indeed, in a meta-analysis examining interventions designed to increase psychotherapy attendance, informed patient choice had the largest effect on increasing attendance (Oldham, Kellet, Miles, & Sheeran, 2012). It should also be noted that a subset of patients dropped out of treatment even after receiving their preferred intervention. Consistent with literature and good clinical practice (e.g., Barrett et al., 2008), assessing a broad range of barriers and risk factors for attrition with patients (e.g., logistical difficulties, transportation, avoidance, etc.) is critical. Yet, overall, findings reinforce evidence that capitalizing on patient preferences may improve patient retention and outcomes, highlighting the potential utility of providing treatment choice and psychoeducation across clinical settings. Treatment beliefs were also closely linked to pretreatment dropout, specifically when examining these differentially. Patients reporting particularly strong beliefs toward one intervention versus the other were more likely to drop out prior to therapy; that is, patients reporting stronger differential beliefs toward PE were more likely to start PE and less likely to start sertraline treatment. In the earliest stages of both pharmacotherapy and psychotherapy, conducting collaborative, patient-centered discussions may promote buy-in and engagement.

The current study reflects the heterogeneity of treatment dropout, which likely occurs for different reasons at various time points of the treatment process. To better understand the processes underlying dropout (Cooper, Kline, Baier, & Feeny, 2018), greater confidence in the factors associated with dropout risk at different stages of treatment is needed. In future research, consideration of dropouts as a heterogeneous group may provide a greater understanding of this critical issue and inform strategies to mitigate its impact. Even among PTSD patients that ultimately complete treatment, many experience thoughts of dropping out prematurely (Hundt, Barrera, Arney, & Stanley, 2017). Thus, whether initiating or continuing in therapy, ambivalence about attending treatment may be common, further reflecting the need for targeted and dynamic efforts to boost retention. Such interventions targeting dropout are likely to be even more effective when implemented at critical time points during treatment.

The current findings should be interpreted in the context of several limitations. First, dropout prior to treatment is likely a complex phenomenon, and there are likely other relevant factors not examined in this study. However, though not comprehensive, efforts were taken to emphasize clinically useful, easily identifiable variables with empirical precedent or theoretical rationale. Second, the unique double randomization design of the larger trial should be noted, and it is likely that some of observed effects may be even larger and other predictors may emerge in PTSD treatment-seeking samples who were not initially willing to be randomized to either PE or sertraline. Despite this, the current study provides a preliminary foundation for future work examining the heterogeneity and complexity of patient dropout. Third, a relatively small number of patients in the trial were nonstarters. However, the current sample of nonstarters afforded sufficient power for analyses, represented a substantial minority in this sample, and provided meaningful information regarding the potential factors that place patients at risk for termination prior to treatment. Although nonstarters reflect only a portion of dropouts in any sample, their prevalence



suggests an incentive to increase sample sizes for more comprehensive future research, such as aggregating datasets across trials.

In summary, the current study provides preliminary evidence of how certain risk factors may be particularly relevant at certain stages of treatment. In even the most effective treatments available today and in routine clinical care, difficulties with patient retention persist. The prevalence and impact of dropout reflects a critical need for additional strategies to mitigate risk and boost engagement, which likely need to be tailored to specific patients at specific times. A more nuanced understanding of how dropout risk factors are salient at different intervals of the treatment process may inform the timing and content of strategies to curtail attrition. In the initial stages of the treatment process, patient-centered discussions regarding perceived needs, preferences, and beliefs may be particularly important for optimizing early engagement.

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### Highlights

- A significant portion of dropout occurred prior to treatment .
- PTSD severity and receiving preferred treatment were tied to pretreatment dropout.
- Treatment beliefs were linked to pretreatment dropout.
- Dropouts prior to treatment differed from in-treatment dropouts.
- Dropout risk factors may differ across stages of treatment.

**Table 1**Clusters, Patient Characteristics, and Comparisons in Pretreatment Dropout ( $N = 200$ )

	Treatment Starters ( $n = 181$ ) $M$ ( $SD$ ) or $n$ (%)	Treatment Nonstarters ( $n = 19$ ) $M$ ( $SD$ ) or $n$ (%)	Comparison Statistic ( $t / \chi^2$ )	$p$
<i>Patient Characteristics Cluster</i>				
Age, range 18–65	37.43 (11.39)	37.21 (10.69)	0.09 <sup>a</sup>	.93
Sex (female)	135 (74.59%)	16 (84.21%)	0.42 <sup>b</sup>	.52
Race (Caucasian)	119 (65.75%)	11 (57.90%)	0.19 <sup>b</sup>	.67
No college degree	125 (69.10%)	15 (78.95%)	0.40 <sup>b</sup>	.53
Full-time employee/student	103 (56.90%)	8 (42.10%)	0.00 <sup>b</sup>	1.00
<i>Enabling Factors Cluster</i>				
Married/cohabitating	61 (33.70%)	3 (15.79%)	1.78 <sup>b</sup>	.18
Annual household income <\$20,000	94 (51.93%)	9 (47.37%)	0.02 <sup>b</sup>	.89
Social support (ISSB)	86.99 (30.63)	85.48 (31.68)	0.18 <sup>a</sup>	.86
<i>Need Factors Cluster PTSD severity (PSS-I)</i>				
Depression severity (HAM-D <sub>24</sub> )	29.91 (6.68)	26.32 (5.94)	2.48 <sup>a</sup>	.02
Baseline functioning (SDS)	19.00 (6.83)	18.39 (6.27)	0.39 <sup>a</sup>	.70
<i>Perceptions of Mental Health and Treatment Cluster</i>				
Mismatch	38 (21.00%)	13 (68.42%)	17.94 <sup>b</sup>	< .001
Current or prior psychotherapy	151 (83.43%)	15 (78.95%)	0.03 <sup>b</sup>	.86
Current or prior medication	130 (71.82%)	13 (68.42%)	0.00 <sup>b</sup>	.96

Note. CS = Credibility Scale; HAM-D<sub>24</sub> = Hamilton Rating Scale for Depression; ISSB = Inventory of Socially Supportive Behaviors; PE = prolonged exposure; PSS-I = PTSD Symptom Scale – Interview; PRR = Personal Reactions to Rationale; PTSD = posttraumatic stress disorder; SDS = Sheehan Disability Scale; SER = sertraline treatment.

<sup>a</sup> =  $t$  value

<sup>b</sup> = chi-square value