

Reasons Underlying Treatment Preference

An Exploratory Study

Bryan N. Cochran

University of Montana

Larry Pruitt

University of Nevada, Reno

Seiya Fukuda

Lori A. Zoellner

University of Washington

Norah C. Feeny

Case Western Reserve University

Very little is known about what factors influence women's treatment preferences after a sexual assault. To learn more about these factors, data were collected from 273 women who read a standard "if this happened to you, what would you do" scenario describing a sexual assault and subsequent trauma-related psychiatric symptoms. After reading standardized treatment options for a pharmacotherapy (sertraline) and a psychotherapy (cognitive behavioral treatment), participants made a hypothetical treatment choice and reported the main reasons for their choice. Women often cited reasons surrounding the effectiveness of a treatment as the primary reason for their treatment preference, suggesting potential masking of symptoms with the medication and more logical, long-lasting effects with the psychotherapy. Other common reasons underlying treatment preference were wariness of the medication and positive feelings about talking in psychotherapy. Better understanding factors that influence treatment preference may aid in refining psychoeducation materials regarding the psychological consequences of sexual assault and their treatment for the lay public and in helping clinicians further tailor their discussion of treatment alternatives for these women.

Keywords: *exploratory analysis; treatment; choice; PTSD; prolonged exposure; sertraline*

Authors' Note: Preparation of this article was supported by a grant to Drs. Feeny and Zoellner from the Anxiety Disorders Association of America. We would like to thank Matig Mavissakalian, MD, and Peter Roy-Byrne, MD, for their advice on this project. The authors would also like to acknowledge Eric Youngstrom, PhD, for help with data collection and Afsoon Eftekhari, PhD, for her work as the arbitrator for extraction of the data into domains.

Approximately one fourth of women in the United States will experience a sexual assault at least once during their lifetime (e.g., Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). According to the National Crime Victimization Survey, between 1992 and 2000, there was an average of 366,460 attempted or completed rapes and sexual assaults annually, with female victims accounting for 94% of all completed rapes and 91% of all attempted rapes (Rennison, 2002). One of the reactions to such traumatic experiences may be posttraumatic stress disorder (PTSD), characterized by reexperiencing the event, avoidance of trauma reminders, and chronic hyperarousal (American Psychiatric Association, 2000). The National Comorbidity Survey Replication (NCS-R; Kessler et al., 2004) showed current rates of PTSD to be 3.5% in the general population. However, among female sexual assault survivors, lifetime prevalence of PTSD reported in the National Comorbidity Survey was 45.9% (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Indeed, women are at particular risk for PTSD, with 2 to 4 times as many women as men developing the disorder (e.g., Kessler et al., 1995).

In representative samples, fewer than 30% of sexual assault victims sought services for assault-related psychopathology (George, Winfield, & Blazer, 1992; Golding, Siegel, Sorenson, Burman, & Stein, 1989). Moreover, in a study of sexual assault survivors seen in an emergency room, only 9% returned for any follow-up counseling (Frazier, Rosenberger, & Moore, 2000), with young, ethnic minority women who were more distressed in the ER least likely to receive counseling. Moreover, even when those with PTSD seek treatment, they typically wait years to seek care: Only 7.1% of individuals with PTSD reported making treatment contact within the first year following trauma exposure, with the median time to seek treatment being 12 years (Wang et al., 2005). Thus, despite high level of trauma exposure and PTSD, only a minority of women actively seek treatment, and even those who do typically experience years of PTSD symptoms before seeking services.

By better understanding factors that influence treatment preferences in young women, we may be able to directly address this gap in utilization. Fortunately, at this point, a number of treatment options for chronic PTSD have been rigorously evaluated (see Foa, Keane, & Friedman, 2000). Prolonged Exposure (PE), a cognitive behavioral therapy, and selective serotonin reuptake inhibitors (SSRIs), including sertraline, have demonstrated efficacy in large-scale randomized clinical trials (e.g., Brady et al., 2000; Foa et al., 1999). Almost 30 years ago, Cronbach and Snow (1977) suggested that client-treatment matching may enhance treatment outcome, and indeed, it may directly impact help-seeking as well. Clients are likely to have distinct preferences for particular types of treatment. Our own recent work suggests that

when given the hypothetical choice between prolonged exposure (PE) and sertraline for the treatment of sexual assault-related PTSD, the majority of women chose PE (87.4%; Zoellner, Feeny, Cochran, & Pruitt, 2003). Similarly, in recent sexual assault survivors, Roy-Byrne, Berliner, Russo, Zatzick, and Pitman (2003) reported slightly more interest in counseling than medication. Thus, we have some indication that treatment preferences may exist following sexual assault in particular, yet we know almost nothing about what factors underlie these preferences.

To begin to understand these important issues, we built on our previous work exploring treatment preferences by asking women to describe the reasons for their choices. Utilizing the same sample described in Zoellner et al. (2003), undergraduate women were given a hypothetical sexual assault scenario and detailed treatment rationales, and asked to describe the top five reasons underlying their hypothetical preference for PE, sertraline, or no treatment. Exploratory analyses were used to abstract the data and capture the richness of these responses. We focused on female college students for several reasons. First, approximately half of first sexual assaults occur before the age of 18 (Tjaden & Thoennes, 1998). Second, women of this age group are at continued risk for experiencing assault, with an additional 29.4% of all first sexual assaults occurring between 18 and 24 (Tjaden & Thoennes, 1998). Moreover, rates of revictimization among female assault survivors are surprisingly high; several studies have documented rates approaching 30% across very brief follow-up periods (i.e., 2 months; Hanson & Gidycz, 1993; Marx, Calhoun, Wilson, & Meyerson, 2001). Thus, it is particularly important to understand treatment preferences of these women, as these are the women who are most likely to be sexually assaulted and, if assaulted, may need to seek services.

Method

Participants

Participants were 273 female undergraduates from the University of Washington (Seattle) and Case Western Reserve University (Cleveland, Ohio). Participants were recruited from undergraduate psychology subject pools and received course credit for their participation in a larger study examining the role of treatment credibility and personal reactions in treatment choice. Participants were on average 19.41 ($SD = 1.94$) years old. The sample was primarily Caucasian (60.8%) and Asian American (27.5%), with 11.7% from other backgrounds. With respect to trauma exposure,

56.4% described an event meeting *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition, text revision [DSM-IV-TR]; APA, 2000) Criterion A trauma specifications, as measured by the Posttraumatic Stress Diagnostic Scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997). The most frequently reported Criteria A events were serious accidents (22%), life threatening illnesses (17.3%), sexual or nonsexual assault (15.9%), and natural disasters (15.3%).

Researchers' Expectations and Biases

Based on our own and previous work (e.g., Roy-Byrne et al., 2003), the researchers for this study all expected to observe a general preference of psychotherapy over the medication. In addition, all researchers identified themselves either as cognitive behavioral or eclectic, with a cognitive behavioral emphasis, in therapeutic orientation.

Materials

Hypothetical scenario. A hypothetical "if this happened to you, what would you do" scenario was developed. Specifically, we chose to utilize an "imagine self" perspective, as this form of perspective taking has been associated with increased self-related cognitions (Davis et al., 2004). The scenario, with presentation of the therapy or medication first being counterbalanced, read as follows:

Please imagine that you are 25 years old. You are seeking treatment because you are experiencing symptoms related to a rape that occurred 6 years earlier during college. You are currently having recurrent thoughts about the rape and intense emotional reactions when reminded of it, persistent avoidance of situations, thoughts, and feelings related to the rape, difficulty sleeping and concentrating, and are feeling on edge. These symptoms are causing you problems at work and in your relationships. You are considering seeking help. Upon further consideration, you have narrowed your choices to two forms of treatment: Prolonged Exposure, an individual therapy, or sertraline, a medication. In addition, you may still choose not to seek treatment. Please read the following treatment descriptions and answer the questions following as if you were deciding on treatment for yourself.

Treatment options. PTSD treatment rationales for both sertraline and PE were developed, matching wording whenever possible. These rationales did not differ in terms of sentence structure, grade level, or reading ease using Microsoft word processing software. Treatment descriptions

contained background information, descriptions of treatment procedures, and possible side effects. See the appendix for treatment rationales.

Measures

Self-report. The PDS (Foa et al., 1997) was used to assess trauma exposure and current PTSD. The PDS assesses the presence and nature of trauma exposure, *DSM-IV-TR* objective and subjective criteria (Criteria A1, A2), 17 *DSM-IV-TR* symptoms (Criteria B-D), duration (Criteria E), and functional impairment (Criteria F). In the present study, the PDS provided history of sexual assault (adult or childhood), presence of a Criterion A event, and current PTSD diagnostic status. The PDS has good test-retest reliability, validity, convergent validity, and high diagnostic agreement (82%) with interview measures of PTSD (Foa et al., 1997).

Treatment choice and reasons. To assess treatment preference, the following question was asked: "If you had a choice between individual therapy, medication, or no treatment to help you with trauma-related symptoms (e.g., nightmares, upsetting thoughts, fear), which would you choose?" Options given in counterbalanced order were therapy, medication, and no treatment. Primary data for the present study were next gathered through the use of an open-ended question: "What factors influenced your choice? Please list and RANK all the factors (1 *most important* to 5 *least important*) you considered in making the decision between therapy, medication, and no treatment." Five response fields were provided to allow for five separate, in rank order, brief narratives regarding treatment choice (allowing up to 255 characters in each field).

Procedures

Participants completed the self-report measures described above. Next, they read a standardized, "if this happened to you, what would you do" scenario describing a sexual assault and PTSD symptoms. Participants were then presented with treatment rationales in counterbalanced order. Participants then made a hypothetical treatment choice of sertraline, PE, or no treatment, and gave reasons for the choice.

Development of domains. The initial data were abstracted using an inductive process similar to the initial steps suggested by Hill, Thompson, and Williams's (1997) qualitative research methodology. To begin the coding process, the team developed a preliminary start list of domains. Given

the nature of material being brief and already being prioritized by the participants, within and cross-case analyses occurred simultaneously. Two judges independently reviewed the raw reasons data within a participant's responses and across participants to begin to derive categories. The judges then met and cycled through the data, made comparisons between the data and derived categories, and discussed to consensus until core domains had been verified. Modifications of these domains on the basis of themes found in participant responses occurred during this iterative coding process. Finally, an auditor carefully reviewed the raw material from each domain and determined whether the wording of core ideas was concise and reflected the raw data. The team then carefully considered the auditor's comments and incorporated this feedback. The final six domains, as seen in Table 1, emerged through this iterative process.

Coding into domains: Quantitative analysis. Given the large sample size, a more quantitative approach was also undertaken. Two new judges independently read through the reasons and assigned reasons to one of the six main domains. If the data fit under more than one domain, the judge coded the primary domain for that reason. Reasons that did not fit into these six domains were coded as miscellaneous. Interjudge reliability was acceptable ($k = .73$ for primary reason, $k = .65$ for all reasons) across the six domains. Given that the two judges coded all reasons for all participants, one judge's coding was selected randomly for presentation.

Results

Exploratory Analysis of Domains for Treatment Preference

Table 1 shows main domains, including typical and variant subcategories. Because not all cases mentioned the same reasons, the term *general* refers to the main core ideas emerging from cross-analysis. Modifying Hill et al. (1997) conventions, a category termed *typical* refers to more than one fourth of the cases within the larger category mentioning this subcategory. *Variants* refers to one fourth or fewer of the cases mentioning this variant category. The following section provides more detailed descriptions of the main extracted domains and subcategories, listing the six general domains in order of their frequency.

Effectiveness of treatment. Many of the statements women made were regarding how effective they perceived treatment to be, with all subcategories

Table 1
Summary of Primary Domains

| Primary Domain | Frequency |
|--|-----------|
| Effectiveness of treatment | General |
| Medications cover up or do not solve problems | Typical |
| Therapy is more logical, getting to the root of problems | Typical |
| Therapy has longer lasting, broader effects | Typical |
| Wariness of medication | General |
| Negative short-term or long-term effects of taking the medication | Typical |
| Physical or mental dependence on medications; return of symptoms on discontinuation | Variant |
| General dislike of medications | Variant |
| Positive feelings about talking | General |
| It is important to talk through problems | Typical |
| Need to talk about the trauma and related symptoms | Variant |
| Having someone to talk to is important | Variant |
| Confronting problems | General |
| Therapy helps directly confront problems | Typical |
| Importance of expressing feelings | Variant |
| Perceived need for help | General |
| Must receive treatment for this type of problem | Typical |
| Will recover with faith or time | Variant |
| Will use own resources to recover | Variant |
| Practical considerations | General |
| Medications will take less time | Typical |

Note: *Typical* refers to more than one fourth of the cases within the larger category mentioning this subcategory. *Variant* refers to one fourth or less of the cases mentioning this variant category.

evidencing a belief in the psychotherapy being more effective than the medication. Three typical categories emerged. One subcategory was that medications cover up or do not solve problems, particularly for trauma-related problems. For example, quoting directly from two women who reported current PTSD following a sexual assault, one stated, “In my experience medication just makes the problem worse. It does not solve the problem; medication just hides it”; and the other stated, “Personal experience. I have PTSD and have taken Zoloft, as well as gone through counseling, psychiatric evaluation, etc. I find that medicine alone won’t solve the problem.” Another woman without a trauma history expressed, “The medication is ineffective in treating mental stresses of rape.” Similarly, another woman pointed out, “It seems that medication is best for when something is wrong with you on the inside—but in the case of a rape, it is not your fault that you are feeling bad—so why change your serotonin level.”

Other subcategories of the effectiveness of treatment focused on positive aspects of the therapy, suggesting that the therapy is more logical, getting to the root of the problems or that the therapy has more lasting, broader effects. Several women specifically wrote, “. . . therapy would help someone get to the root of the problem”; “. . . therapy is better because it gets to the root of the problem”; and “[therapy] gets to the root of the problem and does not just cover up the symptoms.” In terms of the long-lasting, broader subcategory, one woman with current PTSD reported that as the primary reason for her choice, “The treatment lasting for a long period of time.” Another woman simply reported, “Therapy will have long-term effects.”

Wariness of medication. The most typical response under the wariness of medication domain was a focus on the potential short-term (i.e., side effects) and long-term physiological effects of the medication. For example, one woman who had been sexually assaulted and met criteria for PTSD revealed that “I think unnatural drugs can and will be harmful to the physiology of your body.” Similarly, another woman revealed, “I don’t like introducing drugs into my system if I can help it.” A variant subcategory of this wariness domain was potential dependence on sertraline or return of symptoms upon discontinuation. A woman who had been sexually assaulted and met criteria for PTSD wrote, “If you use medication then you might get addicted. You might depend on only medication so I think it is not good for treatment.” Still another reported, “I don’t like medicine, because you have to eventually stop taking it, upon which symptoms could return, or one could experience bad withdrawal symptoms.” Finally, a variant subcategory of the wariness of medication was a general dislike of medications. Some women quite simply wrote, “I don’t like taking medication”; “not a big fan of medication”; or “don’t want to take meds if not completely necessary.”

Positive feelings about talking. A third general domain surrounded positive feelings about talking in psychotherapy. Many women highlighted the importance of talking through problems as a way of healing. One woman wrote, “I think that it is important to talk about your problems and figure out what is causing them.” Another stated simply, “Talking about problems makes me feel better.” Consistent with this, still another woman wrote, “Therapy seems like a good way of getting everything out. When you talk about things, you feel better.”

A variant of this domain was the importance of talking about the trauma and symptoms themselves. As a woman with PTSD wrote, “Talking about it probably would help the individual deal with what happened instead of temporarily being relieved of the memories.” Similarly, another woman

wrote, "Talking about a traumatic experience is helpful to me to get over it." Another subcategory variant of this domain was the importance of specifically talking with someone, either a professional or caring person. One sexual assault survivor wrote, "Being able to talk to a person who understands what you went through." Similarly, another woman stated, "I'd have someone to share my upsetting thoughts or fears with."

Confronting problems. A fourth primary domain was confronting of problems, with the most typical subcategory being that therapy helps directly confront problems. One sexual assault survivor wrote, "I believe that the best way to solve problems and overcome obstacles is to work through them with therapy." Another woman poignantly wrote, "Therapy gives me the opportunity to confront the trauma and take control of it, rather than letting it control me." Others more simply stated things like "confronting and dealing with the problem," "it would confront the issue," and "teaches you how to handle problem." The variant subcategory highlighted the importance of expressing feelings in therapy. One of the women who had experienced a sexual assault wrote, "dealing with your emotions upfront and not suppressing them." Still another woman wrote, "It's important to face your fears to help resolve the fear."

Perceived need for help. A fifth domain mentioned in reasons for selecting particular treatment was the perceived need for outside help. The typical subcategory response was the belief that an individual must receive treatment for this type of problem. As one individual who was sexually assaulted with PTSD put it, "Something that big can't be dealt with alone." Another simply wrote, "Treatment is absolutely necessary."

Variants of this domain focused on the lack of need for treatment, believing recovery will take place with time or faith or existing resources will help with recovery. For example, one woman said, "Eventually they will probably go away, so I would not see a need for treatment." Another suggested, "I believe that having faith and believing in it will get you through anything." In the second variant, one woman suggested the need for a "return to normalcy—I would rather talk with people who are close to me than a psychiatrist because those people are my real friends and family. They know me better and, while not trained." Another woman suggested that "I would first try to deal with it on my own but if this did not work I would seek therapy to be able to talk through things with someone."

Practical considerations. The last and least frequently cited general domain was the role of practical considerations impacting treatment preference. Whereas a range of issues was mentioned, such as cost, the typical subcategory

response was that the medication would take less time. One sexual assault survivor with PTSD said just that: "It would take less time." Another individual with PTSD who chose sertraline said, "Quickness of results."

Quantitative Analysis of Reasons Underlying Treatment Preference

Reasons for treatment choice. Using the coding system described above, the vast majority of women cited effectiveness of treatment (73.6%) as one of their main reasons underlying their treatment preference, followed by wariness of medication (59.3%), positive feelings about talking (41.0%), confrontation of problems (28.2%), need for outside help (22.3%), and practical considerations (11.4%). Only a small percentage of women cited their own therapy experience (2.2%) or use of psychoactive medications (2.6%) as reasons for their choice.

History of sexual assault. A similar pattern emerged when examining only women who reported experiencing sexual assault either as an adult or as a child ($n = 44$) based on the PDS. For individuals with a prior sexual assault history, 72.1% cited the effectiveness of treatment, 65.1% wariness of medication, 34.9% positive feelings about talking, 30.2% confrontation of problems, 20.9% need for outside help, and 11.1% practical considerations. When comparing the occurrence of each of the specific reasons, there were no differences between individuals with and without sexual assault history.

Current PTSD. A slightly different pattern emerged when examining only women who were positive for current PTSD ($n = 27$) based on the PDS. For individuals with PTSD, 68% cited the effectiveness of treatment, 48% wariness of medication, 32% positive feelings about talking, 32% confrontation of problems, 16% need for outside help, and 24% practical considerations. When comparing specific reasons, individuals with PTSD were more likely to cite practical considerations (24%) than trauma-exposed individuals without PTSD, 9.5%, $\chi^2(1, N = 141) = 4.09, p < .05$; and were actually less likely to report wariness of medication, 48% versus 68.1%, $\chi^2(1, N = 141) = 3.63, p = .057$, than trauma-exposed individuals without PTSD.

Treatment Preference

As reported previously (Zoellner et al., 2003), women were more likely to choose PE (87.4%, $n = 228$) than sertraline (6.9%, $n = 18$) or no treatment (5.7%, $n = 15$).

Table 2
Simultaneous Logistic Regression Examining Reasons Related to Treatment Preference of Prolonged Exposure

| Reasons Underlying Treatment Preference | <i>B</i> | <i>SE</i> | Wald | <i>p</i> | Odds Ratio |
|---|----------|-----------|-------|----------|------------|
| Effectiveness of treatment | 1.52 | 0.53 | 8.33 | .004 | 4.56 |
| Wariness of medication | 0.33 | 0.46 | 1.76 | .18 | 1.84 |
| Positive feelings about talking | 1.95 | 0.60 | 10.38 | .001 | 7.01 |
| Confronting problems | 0.69 | 0.53 | 1.69 | .19 | 2.00 |
| Perceived need for help | -2.10 | 0.49 | 18.57 | <.001 | 0.12 |
| Practical considerations | -1.92 | 0.56 | 11.82 | .001 | 0.15 |

Prediction of treatment preference. To explore predictors of treatment preference, we conducted a simultaneous logistic regression using Wald criteria (0 = sertraline/no treatment, 1 = PE), examining the six main domains. Given that participants could describe more than one reason, each participant was coded as either a 1 (endorsing) or 0 (not endorsing) for each of the six categories: (a) effectiveness of treatment, (b) wariness of medication, (c) positive feelings about talking, (d) confronting problems, (e) perceived need for help, and (f) practical considerations, yielding six dichotomous variables for each participant. As can be seen in Table 2, the logistic regression revealed that several of these reason categories helped predict treatment preference, $\chi^2(6, N = 249) = 57.38, p < .001$. Both the treatment effectiveness and positive feelings about talking were associated with choosing PE. On the other hand, perceived need for help and practical considerations were associated with either choosing sertraline or no treatment.

Discussion

Clearly, young women being confronted with the possibility of sexual assault already have strong opinions regarding their treatment preferences. When asked to describe their main reasons for treatment choices, the most common responses were the perceived effectiveness of the treatment, wariness of medication, and positive feelings about talking. Although the treatment rationales for prolonged exposure and sertraline suggested that both treatments have undergone rigorous scientific evaluation and helped reduce symptoms of PTSD, many women nevertheless believed that the psychotherapy would be more effective in treating potential symptoms of PTSD. When examining their reasons, it became clear that many women

believed, particularly for assault-related symptoms, that the medication would cover up, or mask, symptoms whereas the psychotherapy would help to get to the root of the problem or produce longer lasting effects. Indeed, these beliefs were strongly associated with choosing the psychotherapy.

Another reason commonly cited was a wariness of medication, highlighting such issues as short-term and long-term negative physiological effects and the potential for addiction or return of symptoms with medication discontinuation. As Benkert et al. (1997) suggested, psychotropic drugs are often regarded as, "symptom-alleviating sedatives that are beset by considerable side-effects, such as drug dependence, and only 'mask the actual problems'" (p. 152). Interestingly, although often endorsed as a reason, wariness of medication was not strongly associated with treatment preference; in fact, among individuals with PTSD, such wariness was endorsed less frequently than among those without PTSD. Thus, whereas many women were concerned about the effects of medication on their bodies, this concern may not be as influential as others in determining treatment preference. Nevertheless, widespread negative attitudes and irrational beliefs about psychotropic drugs may drastically affect treatment acceptance (e.g., Benkert et al., 1997; Nesbit, 1994). Although our rationales clearly stated the efficacy of the psychotropic medication and highlighted only mild to moderate side effects, further concerted educational measures may be necessary to help assuage some of the irrational fears associated with psychotropic medications, particularly for assault-related PTSD.

Unlike some psychiatric disorders, it may be that the perceived etiology of trauma-related or sexual assault-related PTSD symptoms is more clearly externally, rather than internally, predicated (i.e., the traumatic event) (e.g., Davidson & Foa, 1991). This failure of match between perceived cause of the symptoms and pharmacological treatment is reflected in participants' comments (e.g., "I don't believe that the problems associated with sexually related traumas indicate an imbalance or other symptoms that would necessitate antibiotic treatment"). In other psychiatric disorders, the congruence between perceived etiology and nature of treatment affects the willingness to accept a particular treatment (e.g., Iselin & Addis, 2003; Johnson et al., 2000). Consistent with this, there may be better congruence between the etiology trauma-related symptoms and receiving psychotherapy. Indeed, positive feelings about talking in psychotherapy were a strong predictor of treatment preference for psychotherapy. Women consistently highlighted the need to talk through trauma problems, talk about the trauma itself, and share the experience with others. Clearly, the act of disclosure of emotional experiences, that is, acknowledging and openly discussing a problem, is commonly believed to be a powerful therapeutic agent (e.g., Pennebaker,

1997). This model of change may more closely fit ideas of recovery following trauma exposure than change models via psychotropic agents.

Although endorsed much less frequently, both the perceived need for help and practical considerations were associated with a preference for either no treatment or sertraline. This perceived need for help finding is consistent with Benkert et al. (1997), who reported that whereas psychotropics were generally disapproved of, the approval of pharmacological treatment depended on the perceived necessity of it—specifically an assessment of the severity of the problem. Interestingly, those with PTSD reported practical considerations more frequently than those with trauma histories without PTSD. Similarly, practical considerations are cited most often as reasons for dropping out of PTSD treatment (Zayfert & Becker, 2000). Taken together, these results may suggest that clinicians should pay particular attention to perceived need for help and such practical considerations as treatment barriers, as they have potential implications for both treatment acceptance and treatment completion.

The present study was an analogue, exploratory study involving a hypothetical trauma scenario and subsequent treatment preference. Thus, the present findings may not extend to individuals with chronic PTSD following sexual assault. Yet in our present sample, the similarities were more striking than the differences when comparing individuals with a sexual assault history or chronic PTSD to those without. Furthermore, our sample was limited to young women, and accordingly our findings may not extend to males, to other age ranges, or to forms of trauma exposure other than sexual assault. Nevertheless, as discussed in the introduction, understanding the treatment preferences of women in a potentially high-risk age range for sexual assault may aid in refining psychoeducational materials regarding the psychological consequences of sexual assault and their treatment for the lay public and in helping clinicians further tailor their discussion of treatment alternatives. Finally, our study should be viewed as preliminary exploratory work aimed at moving toward a more thorough understanding of treatment preference processes.

Appendix

Treatment Rationales

Cognitive Behavioral Therapy—Prolonged Exposure

Prolonged exposure (PE) is a 9- to 12-session individual therapy that has been shown to be effective in the treatment of posttraumatic stress disorder (PTSD). Of the available psychotherapies used for PTSD, PE has undergone some of the most

rigorous scientific evaluation; results of several controlled studies have shown it to significantly reduce PTSD symptoms, particularly in women. PE is a type of cognitive behavioral treatment, which is designed to specifically target a number of trauma-related difficulties.

If you choose this treatment for PTSD, you will meet once a week with your therapist for 60 to 90 minutes. You will not receive medication for your PTSD symptoms. Procedures in this treatment include education about common reactions to trauma, breathing retraining (relaxation training), prolonged (repeated) exposure to trauma memories, repeated in vivo (i.e., in real life) exposure to situations that you are avoiding due to trauma-related fear. In other words, you will be encouraged to confront the memory of your trauma through repeatedly telling the story to your therapist and to confront things in your life that you are avoiding because they make you afraid (e.g., driving a car, walking on the street at night). In this program, you will be assigned “homework” to encourage you to practice in life the things you learn in therapy.

The risks associated with PE are mild to moderate discomfort when exposed to anxiety-provoking images, situations, and places.

Medication—Zoloft

Zoloft (sertraline) is an antidepressant that has been shown to be effective in the treatment of PTSD. Of the available medications used for PTSD, Zoloft has undergone some of the most rigorous scientific evaluation; it is the only FDA-approved medication for the treatment of PTSD. Zoloft is a type of antidepressant called an SSRI, or selective serotonin reuptake inhibitor, which is designed to have fewer side effects than older antidepressants (e.g., MAOIs, TCAs, SRIs).

If you choose this treatment for PTSD you will take up to 200 mg of Zoloft daily for 10 weeks. In this treatment you will not talk extensively about your traumatic experience or be encouraged to confront situations or places that you are avoiding. You will be seen weekly by a psychiatrist who will offer general encouragement and support, monitor your response to medication, and record any side effects you are experiencing. Your medication will be adjusted according to a dosing schedule or as clinically indicated. At the end of 10 weeks, the medication will be tapered (reduced) gradually to minimize the chance of withdrawal symptoms with medication discontinuation.

The risks associated with Zoloft are mild to moderate side effects or withdrawal symptoms. Possible side effects include loose stools, sweating, nausea, headache, fatigue, anorexia, weight loss or gain, sexual impairment, increased anxiety, restlessness, and insomnia.

References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.
- Benkert, O., Graf-Morgenstern, M., Hillert, A., Sandmann, J., Ehmgig, S. C., Weissbecker, H., et al. (1997). Public opinion on psychotropic drugs: An analysis of the factors influencing acceptance or rejection. *Journal of Nervous and Mental Disease*, 185(3), 151-158.

- Brady, K., Pearlstein, T., Asnis, G. M., Baker, D., Rothbaum, B., Sikes, C. R., et al. (2000). Efficacy and safety of sertraline treatment of posttraumatic stress disorder: A randomized controlled trial. *Journal of the American Medical Association*, *283*, 1837-1844.
- Cronbach, L. J., & Snow, R. E. (1977). *Aptitudes and instructional methods*. New York: Wiley.
- Davidson, J. R. T., & Foa, E. B. (1991). Diagnostic issues in posttraumatic stress disorder: Considerations for the DSM-IV. *Journal of Abnormal Psychology*, *100*, 346-355.
- Davis, M., Sonderlund, T., Cole, J., Gadol, E., Kute, M., Myers, M., et al. (2004). Cognitions associated with attempts to empathize: How do we imagine the perspective of another? *Personality and Social Psychology Bulletin*, *30*(12), 1625-1635.
- Foa, E. B., Cashman, L., Jaycox, L., & Perry, K. (1997). The validation of a self-report measure of posttraumatic stress disorder: The Posttraumatic Diagnostic Scale. *Psychological Assessment*, *9*, 445-451.
- Foa, E. B., Dancu, C. V., Hembree, E. A., Jaycox, L. H., Meadows, E. A., & Street, G. P. (1999). A comparison of exposure therapy, stress inoculation training, and their combination for reducing posttraumatic stress disorder in female assault victims. *Journal of Consulting and Clinical Psychology*, *67*, 194-200.
- Foa, E. B., Keane, T. M., & Friedman, M. J. (2000). *Effective treatments for PTSD*. New York: Guilford.
- Frazier, P., Rosenberger, S., & Moore, N. (2000, August). *Correlates of service utilization among sexual assault survivors*. Poster presented at annual meeting of the American Psychological Association, Washington DC.
- George, L. K., Winfield, I., & Blazer, D. G. (1992). Sociocultural factors in sexual assault: Comparison of two representative samples of women. *Journal of Social Issues*, *48*(1), 105-125.
- Golding, J. M., Siegel, J. M., Sorenson, S. B., Burman, M. A., & Stein, J. A. (1989). Social support sources following sexual assault. *Journal of Community Psychology*, *17*, 92-107.
- Hanson, K. A., & Gidycz, C. A. (1993). Evaluation of a sexual assault prevention program. *Journal of Consulting & Clinical Psychology*, *61*, 1046-1052.
- Hill, C. E., Thompson, B. J., & Williams, E. N. (1997). A guide to conducting consensual qualitative research. *The Counseling Psychologist*, *25*, 517-572.
- Iselin, M., & Addis, M. E. (2003). Effects of etiology on perceived helpfulness of treatments for depression. *Cognitive Therapy and Research*, *27*(2), 205-222.
- Johnson, M. R., Gold, P. B., Siemion, L., Magruder, K. M., Frueh, B. C., & Santos, A. B. (2000). Panic disorder in primary care: Attributions of illness causes and willingness to accept psychiatric treatment. *International Journal of Psychiatry in Medicine*, *30*(4), 367-384.
- Kessler, R. C., Berglund, P., Chiu, W. T., Demler, O., Heeringa, S., Hiripi, E., et al. (2004). The US National Comorbidity Survey Replication (NCS-R): Design and field procedures. *International Journal of Methods in Psychiatric Research*, *13*, 69-92.
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry*, *52*, 1048-1060.
- Marx, B. P., Calhoun, K. S., Wilson, A. E., & Meyerson, L. A. (2001). Sexual revictimization prevention: An outcome evaluation. *Journal of Consulting & Clinical Psychology*, *69*, 25-32.
- Nesbit, F. (1994). Noncompliance with psychotropic drug prescriptions. *American Journal of Psychiatry*, *151*(5), 783-784.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, *8*(3), 162-169.
- Rennison, C. M. (2002). *Rape and sexual assault: Reporting to police and medical attention, 1992-2000* (Bureau of Justice Statistics, Selected Findings, NCJ 194530). Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

- Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., Saunders, B. E., & Best, C. L. (1993). Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. *Journal of Consulting and Clinical Psychology, 61*, 984-991.
- Roy-Byrne, P., Berliner, L., Russo, J., Zatzick, D., & Pitman, R. K. (2003). Treatment preferences and determinants in victims of sexual and physical assault. *Journal of Nervous and Mental Disease, 191*, 161-165.
- Tjaden, K., & Thoennes, N. (1998). Stalking in America: Findings from the National Violence Against Women Survey. In *National Institute of Justice/Centers for Disease Control and Prevention: Research in brief*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- Wang, P. S., Berglund, P., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Failure and delay in initial treatment contact after first onset of mental disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 603-613.
- Zayfert, C., & Becker, C. B. (2000). Implementation of empirically supported treatments for PTSD: Obstacles and innovations. *The Behavior Therapist, 23*, 161-168.
- Zoellner, L. A., Feeny, N. C., Cochran, B., & Pruitt, L. (2003). Treatment choice for PTSD. *Behaviour Research and Therapy, 41*, 879-886.

Bryan N. Cochran, PhD, is an assistant professor of psychology at the University of Montana. He is trained as a clinical psychologist, and current research interests include treatment for substance use disorders and mental health issues among lesbian, gay, bisexual, and transgender (LGBT) individuals.

Larry Pruitt, MA, is a graduate student in the Clinical Psychology program at the University of Nevada, Reno. His research interests include the phenomenology and treatment of the anxiety disorders, specifically the role of emotion regulation in chronic anxiety.

Seiya Fukuda, MS, presently works as a case manager within an assertive community treatment model for adults with chronic mental illness and co-occurring substance use. He has a neuroscience and clinical psychology background.

Lori A. Zoellner, PhD, is the director of the University of Washington's Center for Anxiety and Traumatic Stress and an associate professor in the Department of Psychology at the University of Washington. She is an NIMH-funded investigator whose research and clinical expertise focuses on the prevention and treatment of chronic posttraumatic stress disorder.

Norah C. Feeny, PhD, is a clinical psychologist and an associate professor in the Departments of Psychology and Psychiatry at Case Western Reserve University (Case). She is also the director of the PTSD Treatment and Research Program at Case. Her clinical and research interests include the delivery and evaluation of cognitive behavioral treatments for PTSD. Her publications include scientific articles and book chapters in this area.