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Shared Decision-making for PTSD

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Posttraumatic stress disorder (PTSD) can be treated effectively with a variety of interventions. Several different treatment approaches have received the strongest possible recommendation in at least one of the current PTSD guidelines, including trauma-focused psychotherapies such as Prolonged Exposure, Cognitive Processing Therapy, Eye Movement Desensitization and Reprocessing (either as a collective group or as individual protocols) and specific antidepressant medications (Forbes et al., 2010; Department of Veterans Affairs [VA] & Department of Defense [DoD], 2017). The existence of multiple effective psychological and pharmacological interventions means that patients seeking treatment for PTSD have options.

There is currently insufficient information to guide the selection of one effective PTSD treatment over another for an individual patient. Few studies have examined prescriptive factors that predict success in one treatment relative to another (Felmingham & Bryant, 2012 and Rizvi, Vogt, & Resick, 2009 are exceptions). Although ongoing trials such as a large VA cooperative study examining the comparative effectiveness of Prolonged Exposure and Cognitive Processing Therapy (Schnurr et al., 2015) will help to fill this gap in the future, providers cannot currently make empirically-informed treatment recommendations based on a patient's demographic characteristics (e.g., age, gender, race/ethnicity) or clinical characteristics (e.g., trauma type, symptom severity). Despite the lack of empirical evidence to guide patient-treatment matching for PTSD, providers and patients face PTSD treatment decisions every day. To help navigate these decisions, multiple guidelines, including the new Clinical Practice Guideline for PTSD published by the VA and DoD (2017), recommend the use of shared decision-making.

Shared Decision-making: A Primer

Shared decision-making is a process by which patients receive current and accurate information regarding treatment options, outcomes, and side effects. This process is facilitated by a provider who helps

the patient explore treatment goals and comfort with the potential benefits and risks associated with various treatment alternatives. The goal of shared decision-making is for patients and providers to work collaboratively to arrive at an informed treatment choice based on good evidence, accurate expectations, and the patients' personal values.

Although several different shared decision-making models exist (for a review see Lin & Fagerlin, 2014), one useful approach conceptualizes shared decision-making as consisting of three phases (Elwyn et al., 2012): *choice talk*, *option talk*, and *decision talk*. Choice talk involves communicating to patients that there is a decision to make and that they can be involved in this decision to the extent that they are comfortable. Option talk consists of sharing accurate and comprehensive information about treatment options. Ideally, this involves the use of a *decision aid*, which is an educational tool such as a website, brochure, or video designed to help patients understand and compare various options (for a review, see Stacey et al., 2017). The third and final step, *decision talk*, consists of an exploration of the patient's preferences and what matters most to him or her. The process of shared decision-making is intended to help the patient develop informed preferences, and ultimately arrive at the decision that is best for him or her. Importantly, patients with the same clinical condition may arrive at very different treatment decisions on the basis of unique values and preferences.

Shared decision-making has been evaluated most often among patients facing care decisions for chronic medical conditions, especially cancer. In medical patients, shared decision-making has been linked with greater confidence in the treatment decision, improved satisfaction with decision-making and with treatment, greater self-efficacy, and increased trust in the provider (Joosten et al., 2008; Shay & Lafata, 2015). In mental health, shared decision-making has been most often evaluated in the context of depression,

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yielding mixed results on both satisfaction and treatment outcomes (Duncan, Best, & Hagen, 2010). Fewer studies have evaluated the effectiveness of shared decision-making for other mental health conditions such as PTSD.

Shared Decision-making Interventions for PTSD

Currently, the body of empirical literature evaluating the effectiveness of shared decision-making interventions for PTSD consists of two published studies. The first was a small ($n = 27$) randomized controlled trial that tested a brief shared decision-making protocol in combat Veterans with PTSD (Mott, Stanley, Street, Grady, & Teng, 2014). Participants were randomized to the shared decision-making condition or to usual care. Those in the shared decision-making condition received a booklet decision aid describing psychotherapies available in the local VA PTSD clinic and met with a provider for a single, manualized shared decision-making session. Usual care participants worked with their provider to make a treatment decision according to the provider's usual methods. Relative to usual care, shared decision-making participants were more likely to prefer an evidence-based psychotherapy and receive an adequate (9 sessions or more) dose of psychotherapy.

A subsequent retrospective cohort study examined the medical records of 1,056 Veterans who enrolled in a VA PTSD clinic during the two years before or after the clinic implemented a single shared decision-making session into routine intake procedures (Hessinger, London, & Baer, 2017). The shared decision-making session was not manualized, though the stated goal of the session was to provide education, discuss treatment options, and engage patients in treatment decisions. Compared with those who did not receive the shared decision-making intervention, the shared decision-making cohort was more likely to both select and initiate an evidence-based psychotherapy, though there were no differences between the groups on number of PTSD treatment sessions attended (both groups attended 8 sessions, on average) or treatment completion.

Results from these two studies suggest that shared decision-making may be particularly useful for increasing engagement in evidence-based PTSD care. Results were mixed, however, regarding its impact on treatment completion and neither study examined its effects on PTSD symptoms. These studies were also limited in that they focused exclusively on decisions about single-disorder treatment for PTSD in an outpatient setting. Future studies examining whether shared decision-making may be a useful framework for approaching other aspects of treatment decision-making for PTSD (such as how and when to use combined or adjunctive treatments, or how to select between outpatient, inpatient, and residential care) would be of great value. Notably, both studies (Hessinger et al., 2017; Mott et al., 2014) also focused exclusively on psychotherapy options. Neither included the presentation and discussion of medication options. Forthcoming results from a recently completed randomized controlled trial in which female Veterans screening positive for PTSD were randomized to shared decision-making or standard care may help to address this limitation; participants in this study received information on effective psychotherapies and medications (ClinicalTrials.gov Identifier: NCT01710306).

Other studies have evaluated the impact of educating patients about PTSD treatment options or involving patients in PTSD treatment decisions, both of which are core components of shared decision-making. A large, randomized trial of a PTSD decision aid found that Veterans who received a booklet decision aid prior to their initial

mental health evaluation were more knowledgeable about PTSD, experienced less decisional conflict, were more likely to receive evidence-based treatment, and had better PTSD outcomes than Veterans who did not receive the decision aid (Watts et al., 2015). In an open trial of an orientation group in which Veterans learned about treatment options and then self-selected their preferred PTSD treatment, participants were highly satisfied and reported that the group helped them make informed treatment decisions (Schumm, Walter, Bartone, & Chard, 2015). The Optimizing PTSD Treatment trial—one of the few studies to examine PTSD treatment decisions among non-Veterans—found that participants randomized to a choice condition in which they self-selected between Prolonged Exposure and sertraline had superior clinical outcomes compared with participants who were randomly assigned to one of these treatments (Le, Doctor, Zoellner, & Feeny, 2014). None of the interventions evaluated in these studies involved communication and deliberation between the provider and the patient; therefore, these studies did not evaluate shared decision-making per se. However, the collective results from this small body of literature provide additional evidence that educating and involving patients in PTSD treatment decisions may enhance patient satisfaction and treatment outcome.

Patient Preferences for Decision-making

There is emerging data to suggest that patients with PTSD want to engage actively in treatment decision-making. Results from a national survey of adults with PTSD symptoms showed that respondents desired a high degree of participation in PTSD treatment decisions, with less than 3% of the sample wanting to defer treatment decisions to their provider (Harik, Hundt, Bernardy, Norman, & Hamblen, 2016). Importantly, respondents were also willing to invest time to learn about and consider their options. Most wanted to spend between 30 and 60 minutes discussing treatment options with their provider, wanted at least an hour to review informational materials on their own, and then wanted at least a few days to arrive a final treatment decision.

Regarding patient preferences for treatment information, information about *how* the treatment works and *how well* the treatment works are particularly important to patients. Two studies examining the reasons underlying PTSD treatment choice found that perceived treatment mechanism was the most common reason for choosing a treatment (Chen, Keller, Zoellner, & Feeny, 2013; Angelo, Miller, Zoellner, & Feeny, 2008). An informational needs assessment conducted by Watts, Zayed, Llewellyn-Thomas, & Schnurr (2016) found that Veterans were most interested in learning about the effectiveness of different PTSD treatments. This finding was later replicated by Harik et al. (2016) in an online survey of adults who screened positive for PTSD. Collectively, the results of these studies suggest that providers should offer clear information about treatment mechanism and effectiveness in order to help patients make informed decisions.

Use of Shared Decision-making for PTSD in Clinical Practice

To date, no published study has systematically assessed the extent to which shared decision-making is used in routine clinical care for PTSD. However, a recent qualitative study by Osei-Bonsu and colleagues (2017) suggests that some providers make unilateral decisions about patients' readiness for PTSD treatment. During semi-structured interviews that asked about their approach to treatment decisions, most providers described using "clinical judgment" or similar processes in which the provider evaluated the

patient's fitness for evidence-based psychotherapy and decided whether or not to offer these treatments. Only a few providers described using a collaborative decision-making process.

Additional indirect evidence also suggests that providers and patients may not regularly engage in shared decision-making for PTSD treatment decisions. If shared decision-making was already a routine practice, we would expect little effect with the addition of shared decision-making interventions. However, patients randomized to receive a shared decision-making protocol (Mott et al., 2014) or a decision aid (Watts et al., 2015) have demonstrated superior outcomes relative to usual care. There is also discordance between patient's PTSD treatment preferences and treatment utilization patterns. When informed of PTSD treatment options and offered choice, most people prefer psychotherapy over medication (for a review see Simiola, Neilson, Thompson, & Cook, 2015), but data from the VA show that a larger proportion of patients with PTSD are treated with medication than psychotherapy (Spoont, Murdoch, Hodges, & Nugent, 2010). A possible explanation is that providers are not adequately eliciting or considering patients' treatment preferences. Another, possible explanation is that there are many more VA providers who can prescribe medications than clinicians who are qualified to provide evidence-based psychotherapies. Finally, a recent national survey reported that participants who had received PTSD treatment were no more knowledgeable about evidence-based PTSD treatments than those who had never received treatment (Harik, Matteo, Hermann, & Hamblen, 2017), suggesting that treatment-seeking PTSD patients may receive limited or ineffective information about these treatment options.

Next Steps

Preliminary research suggests that shared decision-making may be a promising practice for PTSD, although there are currently no large scale controlled trials evaluating shared decision-making in this population. There is great need for well-designed trials evaluating the impact of shared decision-making on outcomes related to both decision-making (e.g., decisional satisfaction) and PTSD treatment (e.g., treatment response). The value of shared decision-making, however, extends beyond its effectiveness for improving such outcomes. Indeed, practice guidelines recommend shared decision-making for PTSD even in the absence of overwhelming research on its empirical benefits because shared decision-making is a central pillar of patient centered care (Barry & Edgman-Levitan, 2012). Simply, patients have right to be informed about their PTSD treatment options and to have a voice in their treatment decisions, and shared decision-making can help to ensure that these rights become a reality.

Providers will require training, resources, and practice before they can effectively engage patients with PTSD in shared decision-making. Although general information on how to do shared decision-making is available through organizations such as Agency for Healthcare Research and Quality (<https://www.ahrq.gov/professionals/education/curriculum-tools/shareddecisionmaking>), only two shared decision-making protocols have been developed specifically for PTSD. Both were designed for use in single-site research studies (Mott et al., 2014; ClinicalTrials.gov Identifier: NCT01710306) with limited applicability to other settings. The lack of a widely available shared decision-making manual appropriate for use in the many diverse settings in which patients and providers make PTSD treatment decisions is likely a limiting factor in use of shared decision-making for PTSD.

Resources to help providers educate patients about PTSD treatment options are more readily available. In particular, two different PTSD decision aids—one a booklet (Watts et al., 2015) and the other an online tool available on the National Center for PTSD website (www.ptsd.va.gov/decisionaid)—provide detailed descriptions of different PTSD interventions and convey information about treatment effectiveness with patient-friendly graphical displays consistent with best practices for risk/benefit communication (Fagerlin, Zikmund-Fisher, & Ubel, 2011). However, existing decision aids for PTSD are limited to generalized information about treatment effectiveness, as research on individually tailored risk/benefit information for PTSD is just beginning. Decision aids created for other medical conditions that provide personalized information based on the patients' unique characteristics provide excellent examples of where the field of PTSD can hope to move in the future (Berry et al., 2018; Elkin et al., 2017; Patzer et al., 2018).

The widespread use of shared decision-making for PTSD may also require a shift in provider perspectives on how treatment decisions should be made. Providers accustomed to assuming control over treatment decisions may be uncomfortable ceding some of this control to patients. Providers may also need to break from established treatment planning routines to make space for shared decision-making. Although shared decision-making is not typically associated with substantial increases in provider time (Hamann et al., 2006), it may be that some providers who are currently devoting little time to treatment decision-making will need to devote more time to shared decision-making. Promising preliminary evidence that patient involvement in PTSD treatment decisions increases engagement in evidence-based care (Mott et al., 2014; Hessinger et al., 2017) and enhances both treatment outcome (Watts et al., 2015) and cost effectiveness (Le et al., 2014) suggests that the effort to implement shared decision-making may be worth it in the end.

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Spoont, M., Murdoch, M., Hodges, J., & Nugent, S. (2010). **Treatment receipt by veterans after a PTSD diagnosis in PTSD, mental health, or general medical clinics.** *Psychiatric Services, 61*, 58–63. doi:10.1176/ps.2010.61.1.58

FEATURED ARTICLES

Angelo, F. N., Miller, H. E., Zoellner, L. A., & Feeny, N. C. (2008). **“I need to talk about it”: A qualitative analysis of trauma-exposed women’s reasons for treatment choice.** *Behavior Therapy, 39*, 13–21. doi:10.1016/j.beth.2007.02.002 A significant proportion of individuals suffering from posttraumatic stress disorder do not seek or receive effective treatment. Understanding the reasons why an individual chooses to seek treatment or prefers one treatment to another is a critical step to improve treatment seeking. To begin to understand these reasons, we conducted a qualitative analysis of the reasons women gave for choosing a cognitive-behavioral treatment, prolonged exposure (PE), or a pharmacological treatment, sertraline (SER). A community sample of women with trauma histories were asked to view standardized rationales, to choose among PE, SER, or no treatment, and to give 5 reasons for their choice. Women indicated that they were more likely to prefer the psychotherapy to the medication. Across reasons given, the most commonly cited reason for treatment preference highlighted why or how the treatment worked (e.g., I need to talk about it); and this reason emerged as the strongest predictor of preference for PE. Understanding this role of perceived treatment mechanism may aid clinicians and public health policy officials to identify and address help-seeking barriers regarding treatment.

Chen, J. A., Keller, S. M., Zoellner, L. A., & Feeny, N. C. (2013). **“How will it help me?”: Reasons underlying treatment preferences between sertraline and Prolonged Exposure in posttraumatic stress disorder.** *Journal of Nervous and Mental Disease, 201*, 691–697. doi:10.1097/NMD.0b013e31829c50a9 Individuals with posttraumatic stress disorder (PTSD) often wait years before seeking treatment. Improving treatment initiation and adherence requires a better understanding of patient beliefs that lead to treatment preferences. Using a treatment-seeking sample ($N = 200$) with chronic PTSD, qualitative reasons underlying treatment preferences for either prolonged exposure (PE) or sertraline (SER) were examined. Reasons for treatment preference primarily focused on how the treatment was perceived to reduce PTSD symptoms rather than practical ones. The patients were more positive about PE than SER. Individual differences did not reliably predict underlying preference reasons, suggesting that what makes a treatment desirable is not strongly determined by current functioning, treatment, or trauma history. Taken together, this information is critical for treatment providers, arguing for enhancing psychoeducation about how treatment works and acknowledging preexisting biases against pharmacotherapy for PTSD that should be addressed. This knowledge has the potential to optimize and better personalize PTSD patient care.

Duncan, E., Best, C., & Hagen, S. (2010). **Shared decision making interventions for people with mental health conditions.** *Cochrane Database of Systematic Reviews, 2010*, 1, Art. No.: CD007297. doi:10.1002/14651858.CD007297.pub2 *Background:* One person in every four will suffer from a diagnosable mental health condition during their life course. Such conditions can have a devastating impact on the lives of the individual, their family and society.

Increasingly partnership models of mental health care have been advocated and enshrined in international healthcare policy. Shared decision making is one such partnership approach. Shared decision making is a form of patient-provider communication where both parties are acknowledged to bring expertise to the process and work in partnership to make a decision. This is advocated on the basis that patients have a right to self-determination and also in the expectation that it will increase treatment adherence. *Objectives:* To assess the effects of provider-, consumer- or carer-directed shared decision making interventions for people of all ages with mental health conditions, on a range of outcomes including: patient satisfaction, clinical outcomes, and health service outcomes. *Search methods:* We searched: the Cochrane Central Register of Controlled Trials (CENTRAL, *The Cochrane Library* 2008, Issue 4), MEDLINE (1950 to November 2008), EMBASE (1980 to November 2008), PsycINFO (1967 to November 2008), CINAHL (1982 to November 2008), British Nursing Index and Archive (1985 to November 2008) and SIGLE (1890 to September 2005 (database end date)). We also searched online trial registers and the bibliographies of relevant papers, and contacted authors of included studies. *Selection criteria:* Randomised controlled trials (RCTs), quasi-randomised controlled trials (q-RCTs), controlled before-and-after studies (CBAs); and interrupted time series (ITS) studies of interventions to increase shared decision making in people with mental health conditions (by DSM or ICD-10 criteria). *Data collection and analysis:* Data on recruitment methods, eligibility criteria, sample characteristics, interventions, outcome measures, participant flow and outcome data from each study were extracted by one author and checked by another. Data are presented in a narrative synthesis. *Main results:* We included two separate German studies involving a total of 518 participants. One study was undertaken in the inpatient treatment of schizophrenia and the other in the treatment of people newly diagnosed with depression in primary care. Regarding the primary outcomes, one study reported statistically significant increases in patient satisfaction, the other study did not. There was no evidence of effect on clinical outcomes or hospital readmission rates in either study. Regarding secondary outcomes, there was an indication that interventions to increase shared decision making increased doctor facilitation of patient involvement in decision making, and did not increase consultation times. Nor did the interventions increase patient compliance with treatment plans. Neither study reported any harms of the intervention. Definite conclusions cannot be drawn, however, on the basis of these two studies. *Authors’ conclusions:* No firm conclusions can be drawn at present about the effects of shared decision making interventions for people with mental health conditions. There is no evidence of harm, but there is an urgent need for further research in this area.

Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., . . . & Barry, M. (2012). **Shared decision making: A model for clinical practice.** *Journal of General Internal Medicine, 27*, 1361–1367. doi:10.1007/s11606-012-2077-6 The principles of shared decision making are well documented but there is a lack of guidance about how to accomplish the approach in routine clinical practice. Our aim here is to translate existing conceptual descriptions into a three-step model that is practical, easy to remember, and can act as a guide to skill development. Achieving shared decision making depends on building a good relationship in the clinical encounter so that information is shared and patients are supported to deliberate

and express their preferences and views during the decision making process. To accomplish these tasks, we propose a model of how to do shared decision making that is based on *choice*, *option*, and *decision talk*. The model has three steps: a) introducing choice, b) describing options, often by integrating the use of patient decision support, and c) helping patients explore preferences and make decisions. This model rests on supporting a process of deliberation, and on understanding that decisions should be influenced by exploring and respecting “what matters most” to patients as individuals, and that this exploration in turn depends on them developing informed preferences.

Fagerlin, A., Zikmund-Fisher, B. J., & Ubel, P. A. (2011). **Helping patients decide: Ten steps to better risk communication.** *Journal of the National Cancer Institute*, 103, 1436-1443. doi:10.1093/jnci/djr318

With increasing frequency, patients are being asked to make complex decisions about cancer screening, prevention, and treatment. These decisions are fraught with emotion and cognitive difficulty simultaneously. Many Americans have low numeracy skills making the cognitive demands even greater whenever, as is often the case, patients are presented with risk statistics and asked to make comparisons between the risks and benefits of multiple options and to make informed medical decisions. In this commentary, we highlight 10 methods that have been empirically shown to improve patients' understanding of risk and benefit information and/or their decision making. The methods range from presenting absolute risks using frequencies (rather than presenting relative risks) to using a risk format that clarifies how treatment changes risks from preexisting baseline levels to using plain language. We then provide recommendations for how health-care providers and health educators can best to communicate this complex medical information to patients, including using plain language, pictographs, and absolute risks instead of relative risks.

Harik, J. M., Hundt, N. E., Bernardy, N. C., Norman, S. B., & Hamblen, J. L. (2016). **Desired involvement in treatment decisions among adults with PTSD symptoms.** *Journal of Traumatic Stress*, 29, 221-228. doi:10.1002/jts.22102

Most medical patients want to be involved in decisions about their care. Whether this is true for people with posttraumatic stress disorder (PTSD)—a disorder characterized by avoidance of trauma-related discussions—is unknown. We conducted an online survey assessing preferences for involvement in PTSD treatment decisions (level of control, timing) and information about PTSD treatment (content, format). Adults who screened positive for possible PTSD ($N = 301$) were recruited from a large online survey panel representative of the U. S. population. Virtually all respondents (97.3%) desired involvement in treatment decisions; two thirds (67.8%) wanted primary responsibility for decisions. Most (64.2%) wanted 30–60 minutes to learn about treatments and 80.1% wanted at least 1–3 days to consider their options. Respondents expressed more interest in informational content on treatment effectiveness and side effects than any other topic. In-person discussion with a provider was preferred more than other learning formats (e.g., websites, brochures). Results suggested that people with symptoms of PTSD want involvement in decisions about their treatment and want to discuss treatment options with their provider. Providers may wish to prioritize information about effectiveness and side effects, and should expect that many patients will need several days after their visit to make a decision.

Harik, J. M., Matteo, R. A., Hermann, B. A., & Hamblen, J. L. (2017). **What people with PTSD symptoms do (and do not) know about PTSD: A national survey.** *Depression and Anxiety*, 34, 374–382. doi:10.1002/da.22558

Background: If people do not recognize posttraumatic stress disorder (PTSD) symptoms, they may not realize they are suffering from the disorder. Likewise, if people do not know that effective treatments exist, they may be unlikely to seek care. This study examined what people with PTSD symptoms know about PTSD and its treatment. We hypothesized that military service and prior receipt of PTSD treatment would be associated with greater PTSD knowledge. **Methods:** We conducted an online survey assessing knowledge in three domains: trauma, PTSD symptoms, and effective PTSD treatments. Participants were 301 adults (50% veterans) who were drawn from a national research panel and screened positive for PTSD. **Results:** When asked to identify items from a list, participants had better recognition for traumatic events ($M = 72.2\%$ of items correct) and PTSD symptoms ($M = 62.3\%$) than for effective PTSD treatments ($M = 37.9\%$). Across domains, participants often identified false items as true. Most participants thought divorce was a trauma that could cause PTSD, that drug addiction was a PTSD symptom, and that support groups are effective PTSD treatments. Prior receipt of PTSD treatment was associated with better symptom recognition ($b = .86, P = .003$). Being a military veteran was associated with better trauma recognition ($b = .56, P = .025$), but poorer treatment recognition ($b = -.65, P = .034$). **Conclusions:** People with PTSD symptoms lack knowledge about the disorder, especially regarding effective treatments. Public education about PTSD is needed so that people recognize when to seek care and which treatments to choose.

Hessinger, J. D., London, M. J., & Baer, S. M. (2017). **Evaluation of a shared decision-making intervention on the utilization of evidence-based psychotherapy in a VA outpatient PTSD clinic.** *Psychological Services*. Advance online publication. doi:10.1037/ser0000141

The Veterans Health Administration (VHA) has continued to emphasize the availability, access, and utilization of high quality mental health care particularly in the treatment of posttraumatic stress disorder (PTSD). While dissemination and availability of evidence-based psychotherapies (EBPs) have only increased, treatment engagement and utilization have continued to be oft-noted challenges. Administrators, researchers, and individual clinicians have continued to develop and explore novel systemic and individualized interventions to address these issues. Pilot studies utilizing shared decision-making models to aid in veteran treatment selection have demonstrated the impact this approach may have on selection of and engagement in EBPs for PTSD. Based on these promising studies, a Department of Veterans Affairs (VA) outpatient PTSD clinic began to implement a shared-decision making intervention as part of a clinic redesign. In seeking to evaluate the impact of this intervention, archival clinical data from 1,056 veterans were reviewed by the authors for rates of treatment selection, EBP initiation, session attendance, and EBP completion. Time elapsed from consult until EBP initiation was also computed by the authors. These variables were then compared on the basis of whether the veteran received the shared-decision making intervention. Veterans who received the intervention were more likely to select and thus initiate an EBP for PTSD sooner than veterans who did not receive this intervention. Veterans, whether receiving the intervention or not, did not differ in therapy session attendance and completion. Implications of these findings and directions for future study are further discussed.

Le, Q. A., Doctor, J. N., Zoellner, L. A., & Feeny, N. C. (2014). **Cost-effectiveness of Prolonged Exposure therapy versus pharmacotherapy and treatment choice in posttraumatic stress disorder (the Optimizing PTSD Treatment trial): A doubly randomized preference trial.** *Journal of Clinical Psychiatry, 75*, 222–230. doi:10.4088/jcp.13m08719 *Objective:* Cost-effectiveness of treatment for posttraumatic stress disorder (PTSD) may depend on type of treatment (eg, pharmacotherapy vs psychotherapy) and patient choice of treatment. We examined the cost-effectiveness of treatment with prolonged exposure therapy versus pharmacotherapy with sertraline, overall treatment preference, preference for choosing prolonged exposure therapy, and preference for choosing pharmacotherapy with sertraline from the US societal perspective. *Method:* Two hundred patients aged 18 to 65 years with PTSD diagnosis based on *DSM-IV* criteria enrolled in a doubly randomized preference trial. Patients were randomized to receive their treatment of choice ($n = 97$) or to be randomly assigned treatment ($n = 103$). In the choice arm, patients chose either prolonged exposure therapy ($n = 61$) or pharmacotherapy with sertraline ($n = 36$). In the no-choice arm, patients were randomized to either prolonged exposure therapy ($n = 48$) or pharmacotherapy with sertraline ($n = 55$). The total costs, including direct medical costs, direct nonmedical costs, and indirect costs, were estimated in 2012 US dollars; and total quality-adjusted life-year (QALY) was assessed using the EuroQoL Questionnaire-5 dimensions (EQ-5D) instrument in a 12-month period. This study was conducted from July 2004 to January 2009. *Results:* Relative to pharmacotherapy with sertraline, prolonged exposure therapy was less costly ($-\$262$; 95% CI, $-\$5,068$ to $\$4,946$) and produced more QALYs (0.056; 95% CI, 0.014 to 0.100) when treatment was assigned, with 93.2% probability of being cost-effective at $\$100,000/\text{QALY}$. Independently, giving a choice of treatment also yielded lower cost ($-\$1,826$; 95% CI, $-\$4,634$ to $\$749$) and more QALYs (0.010; 95% CI, -0.019 to 0.044) over no choice of treatment, with 87.0% probability of cost-effectiveness at $\$100,000/\text{QALY}$. *Conclusions:* Giving PTSD patients a choice of treatment appears to be cost-effective. When choice is not possible, prolonged exposure therapy may provide a cost-effective option over pharmacotherapy with sertraline.

Lin, G. A., & Fagerlin, A. (2014). **Shared decision making: State of the science.** *Circulation: Cardiovascular Quality and Outcomes, 7*, 328–334. doi:10.1161/CIRCOUTCOMES.113.000322 Patients have traditionally entrusted decision making to physicians. However, during the past several decades, patients have been encouraged to become more activated and involved in their health decisions. These situations abound in cardiology, for example, therapy for stable coronary artery disease, anticoagulation for atrial fibrillation, and placement of implantable cardioverter-defibrillators. Each condition demands patient participation in the decision-making process because patients live with the consequences of medical decisions in their day-to-day lives. Unfortunately, research has also shown that patients often are misinformed about the risks and benefits associated with treatments and have little involvement in the decision-making process.^{1,2} Thus, 1 of the great challenges of increasing patient engagement is ensuring that patients make informed, evidence-based decisions that are consistent with their values and preferences. Shared decision making (SDM) has come to the forefront as a way to improve clinical care for patients by encouraging the production and dissemination of accurate, balanced, understandable health information and increasing patient

participation in care. SDM interventions have been shown to improve patients' understanding of the available treatment options, increase the proportion of patients with realistic expectations of benefits and harms, stimulate patients' involvement in decision making, and improve agreement between patients' values and treatment choices.³ Incorporating patient preferences into the decision-making process may also lead to improved patient well-being through better adherence to treatment, fewer concerns about illness, and higher satisfaction with health outcomes. In this article, we review the state of the science in the field of SDM. We discuss models of SDM, as well as methods for providing decision support to patients, including best practices for risk communication, efficacy of decision aids (DAs) for decision support, and use of decision coaches to facilitate shared decision making.

Mott, J. M., Stanley, M. A., Street, R. L., Grady, R. H., & Teng, E. J. (2014). **Increasing engagement in evidence-based PTSD treatment through shared decision-making: A pilot study.** *Military Medicine, 179*, 143–149. doi:10.7205/milmed-d-13-00363 Within the Veterans Health Administration, post-traumatic stress disorder (PTSD) treatment decisions are left to the patient and provider, allowing substantial variability in the way treatment decisions are made. Theorized to increase treatment engagement, shared decision-making interventions provide a standardized framework for treatment decisions. This study sought to develop (phase 1) and pilot test the feasibility and potential effectiveness (phase 2) of a brief shared decision-making intervention to promote engagement in evidence-based PTSD treatment. An initial version of the intervention was developed and then modified according to stakeholder feedback. Participants in the pilot trial were 27 Iraq and Afghanistan Veterans recruited during an intake assessment at a Veterans Affairs PTSD clinic. Participants randomized to the intervention condition ($n = 13$) participated in a 30-minute shared decision-making session, whereas patients randomized to the usual care condition ($n = 14$) completed treatment planning during their intake appointment, per usual clinic procedures. Among the 20 study completers, a greater proportion of participants in the intervention condition preferred an evidence-based treatment and received an adequate (≥ 9 sessions) dose of psychotherapy. Results provide preliminary support for the feasibility and potential effectiveness of the intervention and suggest that larger-scale trials are warranted.

Osei-Bonsu, P. E., Bolton, R. E., Stirman, S. W., Eisen, S. V., Herz, L., & Pellowe, M. E. (2017). **Mental health providers' decision-making around the implementation of evidence-based treatment for PTSD.** *Journal of Behavioral Health Services & Research, 44*, 213–223. doi:10.1007/s11414-015-9489-0 It is estimated that $<15\%$ of veterans with posttraumatic stress disorder (PTSD) have engaged in two evidence-based psychotherapies highly recommended by VA—cognitive processing therapy (CPT) and prolonged exposure (PE). CPT and PE guidelines specify which patients are appropriate, but research suggests that providers may be more selective than the guidelines. In addition, PTSD clinical guidelines encourage “shared decision-making,” but there is little research on what processes providers use to make decisions about CPT/PE. Sixteen licensed psychologists and social workers from two VA medical centers working with ≥ 1 patient with PTSD were interviewed about patient factors considered and decision-making processes for CPT/PE use. Qualitative analyses revealed that patient readiness and comorbid

conditions influenced decisions to use or refer patients with PTSD for CPT/PE. Providers reported mentally derived and instances of patient-involved decision-making around CPT/PE use. Continued efforts to assist providers in making informed and collaborative decisions about CPT/PE use are discussed.

Schumm, J. A., Walter, K. H., Bartone, A. S., & Chard, K. M. (2015). **Veteran satisfaction and treatment preferences in response to a posttraumatic stress disorder specialty clinic orientation group.** *Behaviour Research and Therapy*, 69, 75-82. doi:10.1016/j.brat.2015.04.006 To maximize accessibility to evidence-based treatments for posttraumatic stress disorder (PTSD), the United States Department of Veterans Affairs (VA) has widely disseminated cognitive processing therapy (CPT) and prolonged exposure (PE) therapy to VA clinicians. However, there is a lack of research on veteran preferences when presented with a range of psychotherapy and medication options. This study uses a mixed-method approach to explore veteran satisfaction with a VA PTSD specialty clinic pre-treatment orientation group, which provides education about available PTSD treatment options. This study also tested differences in treatment preference in response to the group. Participants were 183 US veterans. Most were White, male, and referred to the clinic by a VA provider. Results indicated high satisfaction with the group in providing an overview of services and helping to inform treatment choice. Most preferred psychotherapy plus medications (63.4%) or psychotherapy only (30.1%). Participants endorsed a significantly stronger preference for CPT versus other psychotherapies. PE was significantly preferred over nightmare resolution therapy and present-centered therapy, and both PE and cognitive-behavioral conjoint therapy were preferred over virtual reality exposure therapy. Results suggest that by informing consumers about evidence-based treatments for PTSD, pre-treatment educational approaches may increase consumer demand for these treatment options.

Simiola, V., Neilson, E. C., Thompson, R., & Cook, J. M. (2015). **Preferences for trauma treatment: A systematic review of the empirical literature.** *Psychological Trauma: Theory, Research, Practice, and Policy*, 7, 516-524. doi:10.1037/tra0000038 The prevalence of trauma histories and related psychological problems is high in general clinical settings, but little is known about trauma patient preferences for mental health treatment. The purpose of this article is to systematically review and synthesize the literature on treatment preferences in survivors of traumatic events. Studies were identified using comprehensive searches of PsycINFO, Medline, PubMed, Published International Literature on Traumatic Stress, and Cumulative Index to Nursing and Allied Health Literature databases. Included in the review were articles published between January 1980 and September 2014, in English that reported patient preference of treatment for trauma related disorders in either clinical or nonclinical (e.g., analog) samples. The total number of individual participants was 6,091. Of the identified studies, 35 were quantitative and 6 were qualitative. Methodological concerns included the use of analog samples, small sample sizes, and the assessment of a limited number of treatment options (e.g., asking about only 1 type of psychotherapy or medication). Overall, participants expressed a preference for psychotherapy over medication and for talking about their trauma. Understanding and addressing trauma patient preferences may assist in improving treatment initiation as well as facilitate engagement, retention and outcome.

Stacey, D., Légaré, F., Lewis, K., Barry, M. J., Bennett, C. L., Eden, K. B., . . . & Trevena L. (2017). **Decision aids for people facing health treatment or screening decisions.** *Cochrane Database of Systematic Reviews*, 2017, 4, Art. No.: CD001431. doi:10.1002/14651858.CD001431.pub5 *Background:* Decision aids are interventions that support patients by making their decisions explicit, providing information about options and associated benefits/harms, and helping clarify congruence between decisions and personal values. *Objectives:* To assess the effects of decision aids in people facing treatment or screening decisions. *Search methods:* Updated search (2012 to April 2015) in CENTRAL; MEDLINE; Embase; PsycINFO; and grey literature; includes CINAHL to September 2008. *Selection criteria:* We included published randomized controlled trials comparing decision aids to usual care and/or alternative interventions. For this update, we excluded studies comparing detailed versus simple decision aids. *Data collection and analysis:* Two reviewers independently screened citations for inclusion, extracted data, and assessed risk of bias. Primary outcomes, based on the International Patient Decision Aid Standards (IPDAS), were attributes related to the choice made and the decision-making process. Secondary outcomes were behavioural, health, and health system effects. We pooled results using mean differences (MDs) and risk ratios (RRs), applying a random-effects model. We conducted a subgroup analysis of studies that used the patient decision aid to prepare for the consultation and of those that used it in the consultation. We used GRADE to assess the strength of the evidence. *Main results:* We included 105 studies involving 31,043 participants. This update added 18 studies and removed 28 previously included studies comparing detailed versus simple decision aids. During the 'Risk of bias' assessment, we rated two items (selective reporting and blinding of participants/personnel) as mostly unclear due to inadequate reporting. Twelve of 105 studies were at high risk of bias. With regard to the attributes of the choice made, decision aids increased participants' knowledge (MD 13.27/100; 95% confidence interval (CI) 11.32 to 15.23; 52 studies; N = 13,316; high-quality evidence), accuracy of risk perceptions (RR 2.10; 95% CI 1.66 to 2.66; 17 studies; N = 5096; moderate-quality evidence), and congruency between informed values and care choices (RR 2.06; 95% CI 1.46 to 2.91; 10 studies; N = 4626; low-quality evidence) compared to usual care. Regarding attributes related to the decision-making process and compared to usual care, decision aids decreased decisional conflict related to feeling uninformed (MD -9.28/100; 95% CI -12.20 to -6.36; 27 studies; N = 5707; high-quality evidence), indecision about personal values (MD -8.81/100; 95% CI -11.99 to -5.63; 23 studies; N = 5068; high-quality evidence), and the proportion of people who were passive in decision making (RR 0.68; 95% CI 0.55 to 0.83; 16 studies; N = 3180; moderate-quality evidence). Decision aids reduced the proportion of undecided participants and appeared to have a positive effect on patient-clinician communication. Moreover, those exposed to a decision aid were either equally or more satisfied with their decision, the decision-making process, and/or the preparation for decision making compared to usual care. Decision aids also reduced the number of people choosing major elective invasive surgery in favour of more conservative options (RR 0.86; 95% CI 0.75 to 1.00; 18 studies; N = 3844), but this reduction reached statistical significance only after removing the study on prophylactic mastectomy for breast cancer gene carriers (RR 0.84; 95% CI 0.73 to 0.97; 17 studies; N = 3108). Compared to usual care, decision aids reduced the number of people choosing prostate-specific antigen screening (RR 0.88; 95% CI 0.80 to 0.98; 10 studies;

N = 3996) and increased those choosing to start new medications for diabetes (RR 1.65; 95% CI 1.06 to 2.56; 4 studies; N = 447). For other testing and screening choices, mostly there were no differences between decision aids and usual care. The median effect of decision aids on length of consultation was 2.6 minutes longer (24 versus 21; 7.5% increase). The costs of the decision aid group were lower in two studies and similar to usual care in four studies. People receiving decision aids do not appear to differ from those receiving usual care in terms of anxiety, general health outcomes, and condition-specific health outcomes. Studies did not report adverse events associated with the use of decision aids. In subgroup analysis, we compared results for decision aids used in preparation for the consultation versus during the consultation, finding similar improvements in pooled analysis for knowledge and accurate risk perception. For other outcomes, we could not conduct formal subgroup analyses because there were too few studies in each subgroup. *Authors' conclusions:* Compared to usual care across a wide variety of decision contexts, people exposed to decision aids feel more knowledgeable, better informed, and clearer about their values, and they probably have a more active role in decision making and more accurate risk perceptions. There is growing evidence that decision aids may improve values-congruent choices. There are no adverse effects on health outcomes or satisfaction. New for this update is evidence indicating improved knowledge and accurate risk perceptions when decision aids are used either within or in preparation for the consultation. Further research is needed on the effects on adherence with the chosen option, cost-effectiveness, and use with lower literacy populations.

Watts, B. V., Schnurr, P. P., Zayed, M., Young-Xu, Y., Stender, P., & Llewellyn-Thomas, H. (2015). **A randomized controlled clinical trial of a patient decision aid for posttraumatic stress disorder.** *Psychiatric Services, 66*, 149–154. doi:10.1176/appi.ps.201400062

Objective: Patient decision aids have been used in many clinical situations to improve the patient centeredness of care. A patient decision aid for patients with posttraumatic stress disorder (PTSD) has not been developed or tested. The authors evaluated the effects of a patient decision aid on the patient centeredness of PTSD treatment. *Methods:* The study was a randomized trial of a patient decision aid for PTSD versus treatment as usual (control group). The participants were 132 male and female veterans who presented to a single U.S. Department of Veterans Affairs hospital with a new diagnosis of PTSD. Patient centeredness was assessed by knowledge of PTSD and its treatment, level of decisional uncertainty, and ability to state a preferred treatment option. Secondary outcomes included treatments received and PTSD symptoms in the six months after study entry. *Results:* Compared with the control group (N=65), participants who reviewed the patient decision aid (N=63) had higher scores for PTSD knowledge ($p=.002$) and less conflict about their choice of treatment ($p=.003$). In addition, participants who reviewed the patient decision aid were more likely to select and receive an evidence-based treatment for PTSD ($p=.04$) and had superior PTSD outcomes ($p=.004$) compared with the control group. *Conclusions:* Use of a patient decision aid was associated with improvements in patient-centered PTSD treatment. The patient decision aid was also associated with greater use of evidence-based treatments and improvement of PTSD symptoms. This study suggests that clinics should consider using a patient decision aid for patients with PTSD.

Watts, B. V., Zayed, M. H., Llewellyn-Thomas, H., & Schnurr, P. P. (2016). **Understanding and meeting information needs for patients with posttraumatic stress disorder.** *BMC Psychiatry, 16*. doi:10.1186/s12888-016-0724-x *Background:* Posttraumatic Stress Disorder (PTSD) is a commonly occurring mental illness. There are multiple treatments for PTSD that have similar effectiveness, but these treatments differ substantially in other ways. It is desirable to have well-informed patients involved in treatment choices. A patient decision aid (PtDA) is one method to achieve this goal. This manuscript describes the rationale and development of a patient decision aid (PtDA) designed for patients with PTSD. *Methods:* We conducted an informational needs assessment of veterans ($n=19$) to obtain their baseline information needs prior to the development of the PtDA. We also conducted a literature review of effective PTSD treatments, and we calculated respective effective sizes. A PtDA prototype was developed according to the guidelines from the International Patient Decision Aid Standards. These standards guided our development of both content and format for the PtDA. In accordance with the standards, we gathered feedback from patients ($n=20$) and providers ($n=7$) to further refine the PtDA. The information obtained from patients and the literature review was used to develop a decision aid for patients with PTSD. *Results:* Patients with PTSD reported a strong preference to receive information about treatment options. They expressed interest in also learning about PTSD symptoms. The patients preferred information presented in a booklet format. From our literature review several treatments emerged as effective for PTSD: Cognitive Therapy, Exposure Therapy, Eye Movement Desensitization Therapy, Selective Serotonin Reuptake Inhibitors, venlafaxine, and risperidone. *Conclusion:* It appears that the criteria set forth to develop decision aids can effectively be applied to PTSD. The resultant PTSD patient decision aid is a booklet that describes the causes, symptoms, and treatments for PTSD. Future work will examine the effects of use of the PTSD decision aid in clinical practice.

ADDITIONAL CITATIONS

Barry, M. J., & Edgman-Levitan, S. (2012). **Shared decision making—the pinnacle of patient-centered care.** *New England Journal of Medicine, 366*, 780–781. doi:10.1056/NEJMp1109283 In the perspective piece, the authors discuss the central role of shared decision-making in the patient-centered care movement. The article highlights several of the influential publications that encouraged and promoted the use of shared decision-making in clinical care.

Department of Veterans Affairs & Department of Defense. (2017). **VA/DoD clinical practice guideline for the management of posttraumatic stress disorder and acute stress disorder.** Retrieved from <https://www.healthquality.va.gov/guidelines/MH/ptsd/> The 2017 Clinical Practice Guideline for PTSD published jointly by the VA and DoD recommends the use of shared decision-making to guide PTSD treatment decisions. Although this recommendation was not addressed in the systematic evidence review that informed the guideline, the recommendation was made based on the substantial literature supporting shared decision-making in conditions other than PTSD. The guideline also calls for additional research evaluating shared decision-making in the context of PTSD.

Felmington, K. L., & Bryant, R. A. (2012). **Gender differences in the maintenance of response to cognitive behavior therapy for posttraumatic stress disorder.** *Journal of Consulting and Clinical Psychology, 80*, 196-200. doi:10.1037/a0027156 Using combined data from two randomized controlled trials, this study examined whether participant sex predicted success in exposure-only therapy versus exposure plus cognitive restructuring. At the six-month follow-up, men in the exposure group had significantly higher PTSD symptoms compared with men in the exposure plus restructuring condition. These findings suggest that men may display better maintenance of treatment gains following exposure therapy when combined with cognitive therapy.

Fried, T. R. (2016). **Shared decision-making—finding the sweet spot.** *New England Journal of Medicine, 374*, 104-106. doi:10.1056/NEJMp1510020 This commentary explores the role of shared decision-making in situations where clear information about benefits and harms of various treatment options is lacking, and conversely, in situations where risks and benefits are well established. Although clinicians may be tempted to invite patient involvement only when empirical data are absent or uncertain, the authors argues that patient involvement in the treatment decision remains critical even in situations when there are clear data regarding risks and benefits.

Hundt, N. E., Harik, J. M., Barrera, T. L., Cully, J. A., & Stanley, M. A. (2016). **Treatment decision-making for posttraumatic stress disorder: The impact of patient and therapist characteristics.** *Psychological Trauma: Theory, Research, Practice, and Policy, 8*, 728-735. doi:10.1037/tra0000102 In an online survey, PTSD providers ($N = 185$) were randomized to one of four case vignettes and asked to select a recommended treatment for the patient described. Providers' theoretical orientation, age, years of experience, and time spent treating patients with PTSD predicted treatment selection, but patient characteristics did not. Results suggest that providers' PTSD treatment recommendations may be more influenced by providers' own background and experiences than by the patients' clinical presentation.

Joosten, E. A. G., DeFuentes-Merillas, L., de Weert, G. H., Sensky, T., van der Staak, C. P. F., & de Jong, C. A. J. (2008). **Systematic review of the effects of shared decision-making on patient satisfaction, treatment adherence and health status.** *Psychotherapy and Psychosomatics, 77*, 219-226. doi:10.1159/000126073 This systematic review included 11 randomized controlled trials comparing shared decision-making with other interventions. Five trials showed no differences between shared decision making and control on outcome measures, whereas six studies reported that shared decision making outperformed control. Two of the included trials were conducted in mental health populations (schizophrenia and depression), and both reported a positive effect of shared decision making.

Rizvi, S. L., Vogt, D. S., & Resick, P. A. (2009). **Cognitive and affective predictors of treatment outcome in Cognitive Processing Therapy and Prolonged Exposure for posttraumatic stress disorder.** *Behaviour Research and Therapy, 47*, 737-743. doi:10.1016/j.brat.2009.06.003 This study examined patient-level predictors of response to Cognitive Processing Therapy relative to Prolonged Exposure. Participants were female sexual assault survivors with PTSD ($N = 145$) who received treatment as part of a randomized trial. Older women had better outcomes with Prolonged Exposure, whereas younger

women had better outcomes with Cognitive Processing Therapy. Women with higher baseline anger were more likely to drop out of Prolonged Exposure than Cognitive Processing Therapy.

Schnurr, P. P., Chard, K. M., Ruzek, J. I., Chow, B. K., Shih, M.-C., Resick, P. A., . . . & Lu, Y. (2015). **Design of VA Cooperative Study #591: CERV-PTSD, comparative effectiveness research in veterans with PTSD.** *Contemporary Clinical Trials, 41*, 75-84. doi:10.1016/j.cct.2014.11.017 This manuscript describes the design of a large, multisite randomized controlled trial comparing Prolonged Exposure and Cognitive Processing Therapy in Veterans. Results will provide information about whether one treatment is more effective than the other and whether one intervention may be better for specific types of patients. Of particular importance to shared decision-making, the investigators will also examine whether discrepancy between patient preferences and treatment assignment impacts effectiveness.

Shay, L. A., & Lafata, J. E. (2015). **Where is the evidence? A systematic review of shared decision making and patient outcomes.** *Medical Decision Making, 35*, 114-131. doi:10.1177/0272989X14551638 This systematic review of 39 shared decision-making studies (most were observational in nature) found that shared decision-making was most often associated with improvements in affective-cognitive outcomes, such as patient satisfaction with care and confidence in the treatment decision. Evidence was lacking for the association between shared decision-making and behavioral outcomes such as treatment engagement and health outcomes such as symptom reduction.

Substance Abuse and Mental Health Services Administration. (2011). **Shared decision-making in mental health care: Practice, research, and future directions.** Retrieved from <http://www.integration.samhsa.gov/clinical-practice/shared-decision-making> This detailed report by the Substance Abuse and Mental Health Services Administration offers an overview of shared decision-making and the research examining its effects on healthcare, with a particular focus on mental health. The report also includes recommendations for increasing the use of shared decision-making in clinical practice.