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**INCREASING MENTAL HEALTH TREATMENT-SEEKING IN
EMERGING ADULT COLLEGE-STUDENT SURVIVORS OF SEXUAL
ASSAULT: A RANDOMIZED CONTROLLED TRIAL OF AN ONLINE
INTERVENTION**

Jessica Huntt

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ADULT COLLEGE-STUDENT SURVIVORS OF SEXUAL ASSAULT: A
RANDOMIZED CONTROLLED TRIAL OF AN ONLINE INTERVENTION

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ABSTRACT

INCREASING MENTAL HEALTH TREATMENT-SEEKING IN EMERGING ADULT COLLEGE-STUDENT SURVIVORS OF SEXUAL ASSAULT: A RANDOMIZED CONTROLLED TRIAL OF AN ONLINE INTERVENTION

Jessica Huntt

The prevalence of sexual violence, particularly in emerging adult women, is alarming (Sinozich & Langton, 2014; Smith et al., 2017), and rates of treatment seeking are low (e.g., Smith et al., 2010). Engagement strategies and motivational interviewing have garnered support in mitigating barriers to mental health treatment-seeking (e.g., Lerch et al., 2017). However, young college women often do not seek treatment for symptoms following sexual violence due to additional barriers such as shame and institutional betrayal (Holland, 2019; Logan et al., 2005). Lack of treatment can lead to long-term detriments (e.g., Halpern et al., 2018) and there is little research on what strategies are effective in getting these survivors into therapy. The current study aimed to address this gap by examining the efficacy of a technology-delivered engagement intervention, Reaching and Empowering Survivors to Engage in Treatment (RESET, Huntt, 2020), in a randomized controlled trial with sexual violence survivors in college. We conducted logistic and linear regressions to examine the efficacy of RESET compared to a psychoeducational control in improving treatment-seeking in female sexual violence survivors, ages 18-24 (N = 78). Results demonstrated no significant effects of intervention condition on treatment-seeking behaviors, $\chi^2(8) = .819, p = .365, R^2 = .011$, or readiness to change, $F(1,65) = 2.08, p = .154, R^2 = .023$. However, several constructs emerged as predictors in these regression models. Race/Ethnicity showed a

trend toward significant prediction of treatment-seeking behaviors, $\chi^2(3) = 7.30, p = .063, R^2 = .119$. Based on odds ratios, participants who identified as minority race (i.e., Asian or Black/African American) were 82% less likely to seek treatment than those who identified as multiracial (i.e., two or more races/ethnicities), $Exp(B) = .18, p = .023$. There was also a trend for participants who identified as minority race to report higher scores ($M = 8.06; SD = 1.96$) on for readiness to change than those who identified as multiracial ($M = 9.93; SD = 1.38$). Perceived value of treatment and PTSD symptoms at baseline positively predictive predicted readiness to change. These findings highlight clinical implications and potential adaptations to RESET to improve its efficacy.

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Introduction

Sexual violence (SV) occurs when a perpetrator attempts or completes penetrative or non-penetrative sexual acts on a child or adult without consent, using incapacitation or force (Muehlenhard, Peterson, Humphreys, & Jozkowski, 2017). According to the National Intimate Partner and Sexual Violence Survey, approximately 36% of women in the United States experience SV during their lifetime (Smith et al., 2017). Emerging adult women enrolled in college (i.e., age 18 to around 24 or 25; Arnett, Žukauskienė, & Sugimura, 2014) are three times more likely to experience SV than other age groups (Sinozich & Langton, 2014).

SV is associated with a host of negative mental health (MH) outcomes including posttraumatic stress disorder (PTSD), anxiety, depression, substance use, and suicidality (Dworkin, Menon, Bystrynski, & Allen, 2017). Left untreated, SV can lead to long-term consequences such as illicit substance abuse and personality disorders (de Aquino Ferreira et al., 2018; Halpern et al., 2018). Failure to address SV sequelae in emerging adult women enrolled in college has been shown to result in long-term consequences such as lower sexual and emotional intimacy, lower likelihood of college graduation, perceived career underachievement, and poorer work performance (Potter, Howard, Murphy, & Moynihan, 2018; Rothman, Salivar, Roddy, Hatch, & Doss, 2019).

Trauma-specific cognitive-behavioral therapies such as Cognitive Processing Therapy (CPT; Resick, Monson, & Chard, 2017) and Prolonged Exposure (PE; Foa, Hembree, & Rothbaum, 2007) have been shown to significantly reduce PTSD and related symptoms in survivors of SV (e.g., Holliday, Holder, & Surís, 2018; Kline, Feeny, & Zoellner, 2020; Resick, Williams, Suvak, Monson, & Gradus, 2012). Despite existence of

efficacious therapies, studies suggest that emerging adult women enrolled in college have low rates of treatment seeking (Burgess et al., 2009; Kessler et al., 2005; Smith, Cleland, & Dennis, 2010; Substance Abuse and Mental Health Services Administration Office of Applied Studies, 2008).

There is little research on the efficacy of strategies to increase treatment seeking in emerging adult SV survivors enrolled in college. Given the high rate of SV reported in this group (e.g., Sinozich & Langton, 2014), combined with particularly low rates of MH treatment-seeking (e.g., Burgess et al., 2009) and the threat of long-term MH consequences if left untreated (e.g., Rothman et al., 2019), such an intervention is crucial. The goal of the proposed study is to examine an intervention designed to increase treatment seeking in emerging adult SV survivors enrolled in college. Below is a summary of the literature on treatment seeking in SV survivors and emerging adults, beginning with barriers to treatment seeking.

Barriers to Mental Health Treatment-Seeking

Theorists and researchers have identified barriers to treatment. The initial work (McKay et al., 1996) identified two types of barriers: concrete and perceptual (e.g., Dorsey et al., 2014; Logan, Evans, Stevenson, & Jordan, 2005; Price et al., 2014). Concrete barriers are pragmatic factors that interfere with attending MH services, such as not having time in one's schedule and lack of knowledge about the process and procedures (e.g., Logan et al., 2005; Lu, Dear, Johnston, Wootton, & Titov, 2013). Perceptual barriers are conceptual factors that interfere, including stigma, prior negative experience(s) with MH professionals, low perceived need for treatment, and lack of confidence that treatment will work (e.g., Dorsey, et al., 2014; Logan et al., 2005; Ullman

& Lorenz, 2020; Zlotnik, Brown, Chaplin, Herring, & Campbell, 2010). Often, perceptual barriers have a basis in racial/ethnic, or cultural factors, such as mistrust of MH providers (Ullman & Lorenz, 2020). The empirical link from concrete and perceptual barriers to lower treatment seeking is well established (e.g., Logan et al., 2005; Price et al., 2014; Lu et al., 2013; Ullman & Lorenz, 2020).

Trauma researchers (e.g., Zlotnik et al., 2010) have argued that there are trauma-specific barriers to treatment seeking. The most recognized trauma-specific barrier is avoidance. A core cluster of symptoms in the diagnosis of PTSD (American Psychiatric Association, 2013), avoidance means evading people, places, and things, as well as internal cues, such as memories, thoughts (e.g., self-blame) and feelings (e.g., guilt and shame), that remind the survivor of the trauma. Evidence-based trauma therapies involve confronting external reminders and directly addressing internal trauma cues (e.g., Foa et al., 2007; Resick et al., 2017). Thus, treatment may frighten the avoidant survivor. Logan and colleagues (2005) found that SV survivors identified self-blame, guilt, and shame as barriers to seeking treatment. Conversely, overall level of PTSD symptoms has been shown to relate to greater treatment-seeking behaviors in survivors (e.g., Kirkner et al., 2018; New & Berliner, 2000; Ullman, 2007). Thus, it may be other PTSD symptom clusters, such as re-experiencing symptoms (i.e., flashbacks and nightmares), motivate survivors to seek treatment.

In addition to the experience of trauma more generally, there are SV-specific barriers to treatment seeking. Extant research on assault characteristics is mixed, with some research showing more severe assault to be associated with greater likelihood of treatment-seeking, and other research showing that severity does not relate to formal

help-seeking (e.g., Lewis et al., 2005; New & Berliner, 2000). Ullman (e.g., 2007; 2014) has done extensive work suggesting that how recipients of SV disclosure react to the survivor (e.g., blaming, coercing the survivor to take action, focusing on their own feelings) results in lower likelihood of telling others. In turn, some reactions to SV disclosure function as barriers to treatment seeking, with empirical research specifying barriers as family pressure to stay silent and disapproval from the community (Logan et al., 2005). Survivors also report hesitancy to seek treatment due to fear that this will lead to a breach of confidentiality, including a report to the police (Logan et al., 2005). Cohn, Zinzow, Resnick, and Kilpatrick (2013) have identified survivor fears around police reporting such as retaliation by the perpetrator or being told that their experience was not serious enough to be considered rape or a crime.

In addition to the established concrete, perceptual, trauma- and SV-specific barriers, the following characteristics of emerging adult college students may interfere with their treatment seeking, including the need for autonomy, opposition of authority, perception of institutional betrayal, and avoidance coping (Holland, 2019; Naar-King & Suarez, 2011; Pretorius, Rowlands, Ringwood, & Schmidt, 2010; Spence, Owens-Solari, and Goodyer, 2016; Wilson et al., 2011). As emerging adults shift to greater autonomy (Arnett et al., 2014; Naar-King & Suarez, 2011), they report increasing belief that they should handle MH problems on their own (e.g., Nada-Raja, Morrison, & Skegg, 2003). This need for autonomy has been shown to be associated with a hesitancy to seek help, including from MH professionals (Wilson et al., 2011). Emerging adults also exhibit an opposition to authority in their shift toward independent decision making (Naar-King & Suarez, 2011), a tendency that may dissuade them from seeking MH support. Further,

emerging adult SV survivors in college report the perception of betrayal by those in authority. Institutional betrayal includes actions and negligence by the university that worsen trauma consequences (Smith & Freyd, 2014). Holland (2019) found betrayal-related mistrust in the Title IX office and Sexual Assault Center as a barrier to using these supports, a finding that could reasonably extend to the use of a counseling center. Finally, research demonstrates that emerging adults who receive MH referrals are more likely to self-stigmatize and engage in avoidance coping than those who do not receive referrals (Spence et al., 2016). Based on these findings, researchers stress the importance of collaborating regarding treatment options. Given that, emerging adult college students tend to prefer accessing health information and completing assessments and interventions online, in order to remain anonymous and feel in control (Hanauer, Dibble, Fortin, & Nananda, 2004; Pretorius et al., 2010), they may avoid more traditional methods necessary to seek treatment (i.e., making a phone call or walking into a clinic to learn about services).

Tailoring an Engagement Intervention for Emerging Adult Survivors in College

Given the impact of these barriers in impeding treatment seeking, I believe that an effective intervention would require elements from two complimentary engagement approaches: Training Intervention for the Engagement of Families (TIES; McKay et al., 1996) and Motivational Interviewing (Miller & Rollnick, 1991). TIES is an engagement intervention designed to empower caregivers in overcoming treatment barriers through providing them with psychoeducation on the purpose and procedures of MH services, clarifying the need for treatment based on symptoms, engaging them in problem solving concrete barriers, and eliciting and discussing their perceived barriers. Motivational

Interviewing is an intervention that targets intrinsic motivation and willingness to change through elements such as problem solving, rolling with resistance, empowering/enhancing self-efficacy, and addressing perceptual barriers through validation and weighing change versus inaction (Arkowitz, Westra, Miller, & Rollnick, 2008). These elements are woven together by the “spirit” of MI, a style that promotes autonomy and independence while minimizing resistance. I am proposing that an intervention to increase treatment seeking in emerging adult SV survivors in college would include the above elements of assessment and feedback to clarify the need for treatment, psychoeducation to de-stigmatize and normalize trauma reactions and mitigate past negative reactions to SV disclosure, problem solving to address concrete barriers, empowering/enhancing self-efficacy to promote autonomy and minimize avoidance, and validation and weighing consequences to address perceptual barriers.

In addition to the content elements described above, a technology platform should be considered for the intervention methodology. Using a technology-based platform, such as a mobile application, may be a way to reach SV survivors despite reported barriers of shame and avoidance of trauma reminders. Additionally, a mobile application could provide maximum accessibility to emerging adults in college given reported technology preferences and tendency to avoid more identifying methods (e.g., Hanauer et al., 2004; Pretorius et al., 2010).

Empirical Basis for Engagement Interventions

Researchers have conducted numerous empirical studies on engagement protocols to improve treatment seeking. The two most well established are McKay’s engagement strategies (1996; 1998) and MI (Miller & Rollnick, 1991).

Engagement Strategies. McKay and colleagues (1996) pioneered a set of strategies for engaging children and their caregivers in MH treatment that have since been manualized in a training package (TIES; <http://www.tiesengagement.com/>) and may be applicable to emerging adult SV in college. As aforementioned, these engagement strategies include elements such as problem solving concrete barriers, discussing perceptual barriers, empowering caregivers, and clarifying treatment need and expectations. In their seminal research, McKay and colleagues (1996) established the efficacy of this intervention compared to treatment as usual (TAU) in targeting initial therapy attendance (McKay et al., 1996). Substantial evidence to support the use of this intervention with children and families has since accumulated (e.g., Cavaleri et al., 2006; Cavaleri et al., 2010).

Researchers have examined the efficacy of these engagement strategies alone (Dorsey et al., 2014) and in addition to trauma-specific elements (Zlotnik et al., 2010) with families referred for Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT; Cohen et al., 2017). Dorsey and colleagues (2014) compared McKay's engagement protocol to standard care with children exposed to one or more traumatic events, and their foster caregiver(s). Though families who received the engagement strategies did not show greater attendance than TAU at the initial session, they were more likely to continue on for at least the first four sessions. The generalizability of these findings to non-treatment-seeking individuals is limited given that participants had already agreed to attend a clinic assessment. In a sample of children exposed to physical abuse, sexual abuse, or traumatic bereavement, Zlotnik and colleagues (2010) compared TAU to the McKay set of engagement strategies: 1) alone and, 2) in addition to trauma-specific engagement

strategies (i.e., addressing avoidance symptoms and differentiating the treatment program from child protective services). Though no group differences emerged for initial attendance, overall treatment attendance rates were marginally higher for those in the trauma-specific engagement group (84%) compared to TAU (62%), supporting that engaging trauma survivors may require additional components. Research is needed to examine these engagement strategies in emerging adult SV survivors in college.

Motivational Interviewing. Originally developed as a set of behavior change strategies targeting addictive behaviors, motivational interviewing (MI; Miller & Rollnick, 1991) has been examined with other targets such as treatment seeking (e.g., Buckner & Schmidt, 2009; Lerch Walters, Tang, & Waxman, 2017; Seal et al., 2012). As aforementioned, MI aims to increase intrinsic motivation and willingness to change through underlying principles (e.g., expressing empathy, developing discrepancy, rolling with resistance, empowering/enhancing self-efficacy), specific strategies (e.g., problem-solving concrete barriers, weighing change versus inaction to address perceptual barriers), and a delivery style described as collaborative, evocative, and conducive to autonomy (Arkowitz et al., 2008; Naar-King & Suarez, 2011). MI has accumulated empirical support for a multitude of change behaviors in both adult and emerging adult samples (e.g., DeVargas & Stormshak, 2020; Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010; MacDonell, Naar, Gibson-Scipio, Lam, & Secord, 2016). More recently, the efficacy of MI in increasing treatment seeking has garnered substantial evidence (e.g., Buckner & Schmidt, 2009; Lerch et al., 2017; Seal et al., 2012). Below, we focus on empirical studies examining MI to improve treatment seeking in emerging adult college

students and trauma survivors, highlighting studies that incorporate technology in lieu of therapist facilitation.

Researchers suggest that MI may be beneficial in addressing low treatment seeking in emerging adult college students. Buckner and Schmidt (2009) examined the effectiveness of three sessions of MI compared with a psychoeducational control in increasing therapy willingness and initial attendance in emerging adult college students with social anxiety ($N = 71$). For those who completed a follow-up assessment ($n = 27$), individuals in the MI condition were more willing and likely to attend a first CBT appointment after one month (Buckner & Schmidt, 2009). Though interpretability of these findings is limited by the small sample size, this study highlights MI as a potentially effective approach for increasing treatment-seeking within the emerging adult population. Further research is warranted.

Researchers have established some efficacy for therapist-facilitated MI in adult trauma survivors, with two studies examining the outcome of treatment initiation in veteran samples (Seal et al., 2012; Zanjani et al., 2008). Seal and colleagues (2012) examined the effectiveness of MI compared to control (i.e., referrals and supportive phone calls) in improving initiation of psychotherapy with symptomatic combat veterans ($N = 73$; 36 females). Significantly more participants in the intervention condition entered into MH treatment (62% versus 26%, respectively). In a similar RCT, Zanjani and colleagues (2008) examined the effectiveness of an MI intervention in comparison with mailed psychiatric evaluation results, with the goal of increasing psychiatric appointment attendance for symptomatic veterans ($N = 113$; 108 males; 57% PTSD diagnosis). Those who received the MI intervention were significantly more likely to

attend a first psychiatric appointment, providing additional support for the use of MI in increasing treatment seeking with survivors. This study sample included only individuals who accepted a psychiatric referral, which may limit generalizability of the results. Applicability of findings is further limited across these two studies (Seal et al., 2012; Zanjani et al., 2008) given that participants had already presented to a facility for resources or medical treatment, whereas barriers may prevent SV survivors and emerging adult college students from seeking formal services (e.g., Logan et al., 2005; Wilson et al., 2011). Despite limitations, these studies provide support for the effectiveness of MI interventions in increasing initiation of MH treatment for trauma survivors.

A technology-delivered MI intervention for treatment seeking may circumvent some of the barriers facing emerging adult college students and SV survivors. Researchers have developed technology delivered adaptations of motivational interviewing (TAMI; Shingleton & Palfai, 2016), with some empirical evidence showing improvements in treatment initiation with adults (e.g., Lerch et al., 2017), and other target behaviors with emerging adult college students (e.g., medication adherence; MacDonnell, Naar, Gibson-Scipio, Lam, & Secord, 2016). Two dissertations provide preliminary support for the use of TAMIs in increasing treatment initiation with adult trauma survivors reporting experiences of combat (Putts, 2014) and various other traumas (Esfahani, 2015).

Putts (2014) examined a TAMI with adult veterans ($N = 31$; 25% combat trauma), compared to a hypothetical control from other research. Non-parametric binomial tests of proportions revealed a better referral acceptance rate in the TAMI condition compared to acceptance rates from primary care physicians or MH providers. However, the rate of

actual first therapy appointment attendance for individuals who received the TAMI was inferior to the rate in the comparison sample. The discrepancy between referral acceptance and therapy entrance might be accounted for by the intervention limitation of failure to address treatment-seeking barriers directly through problem solving. An additional intervention limitation is the absence of psychoeducation to de-stigmatize and normalize experience of trauma reactions. Of note, participants in this study were recruited if they had sought any services through the Veterans Service Office (e.g., assistance filing claims for benefits), or if they were identified through mobile outreach (i.e., homeless and/or attending soup kitchen). Research is needed that addresses this study limitation by examining a TAMI with trauma survivors who are not accessible in these ways.

Esfahani (2015) examined the effectiveness of a TAMI compared to psychoeducational control in increasing treatment entrance for adults who experienced a traumatic event within the past year, recruited through social media and other online forums. Of note, the final sample (N = 14; Ages 22-64, 79% female) included one survivor of SV, who was randomized to the intervention condition. Findings indicate that more individuals who received the TAMI reported greater readiness to change and treatment initiation compared to the control group (4 and 1, respectively), though this latter difference was not statistically significant (Esfahani, 2015). Further, at post-intervention the TAMI group did not report fewer barriers to treatment than the control group. Given the small sample size, the author concluded that there was not enough power to detect significant differences in these constructs. There are two intervention limitations to consider. The first is deviation from a client-directed and collaborative style

of presentation that could circumvent barriers of avoidance and opposition to authority. Second, the intervention lacked individualized assessment, feedback and problem solving. Despite these limitations, these results taken together with the study above (Putts, 2014) provide preliminary support that a TAMI may be an effective intervention in increasing treatment seeking and readiness to change in trauma survivors.

Summary

Although protocols exist that have shown improvements in initial therapy attendance, intervention conditions in empirical literature often exclude one or more critical components, including individualized assessment, feedback, psychoeducation, problem solving, empowering/enhancing self-efficacy, and weighing consequences of change and inaction. These components are necessary for addressing a combination of concrete, perceptual, trauma-specific, and emerging adult college student-specific barriers.

Study limitations include shortcomings in recruitment methods, sample, and delivery setting and style. Most studies recruited participants through a clinic or medical setting, a method that may deter emerging adult college students and SV survivors who would avoid this level of formal help seeking. The only intervention study that reached a trauma sample which was both non-mandated and non-treatment seeking had low power (Esfahani, 2015) and included only one SV survivor. No prior studies have focused on emerging adult college students in examining the efficacy of a TAMI for treatment seeking. Researchers typically delivered interventions on the phone or at a clinic, which could alienate emerging adult college students who prefer the anonymity and feeling in control that may accompany alternative methods (e.g., online or application-based).

Finally, some interventions were delivered in a manner that was expert directed, rather than in a way that was conducive to autonomy (i.e., collaboratively). As aforementioned, this delivery method could enact opposition to authority as a barrier from emerging adult college students, particularly those who have experienced institutional betrayal after a SV experience.

Current Study

The current study aims to address these shortcomings in the literature through tailoring and administering a TAMI for symptomatic emerging adult SV survivors in college: Reaching and Empowering Survivors to Engage in Treatment (RESET). We hypothesized that, compared to participants who receive only referrals and psychoeducation regarding SV exposure, symptomatology, and treatment, those who received RESET would: 1) be more likely to schedule a first therapy appointment, and 2) demonstrate greater readiness to change regarding seeking treatment.

Method

Participants

Participants in the current study include seventy-eight female, emerging adult college students with ages ranging from 18 to 24, $M_{age} = 20.16$, $SD_{age} = 1.43$. The majority of individuals in the sample (74%) identified as a racial or ethnic minorities or multiracial. Individuals must have reported at least one experience of sexual violence during their lifetime to have been included. Forty-one percent of individuals in the sample also reported experiencing at least one additional trauma. Participants reported a mean severity of sexual violence experienced as 3.47, $SD = 1.93$, on a scale ranging up to 5 and an average rating of PTSD symptoms as 26.08, $SD = 17.18$, on a scale ranging from 0 to 80. Table 1 summarizes the demographic characteristics of included study participants.

To be included, participants must have endorsed at least one symptom that began or worsened following an experience of sexual violence. Women who were currently in MH treatment were excluded from the study. Figure 1 is a consort diagram that includes retained sample sizes and percentages at each step of inclusion criteria.

Measures

Demographics. Demographic information was collected using the form created for this study, which can be found in Appendix A. Information collected includes gender, age, year in college, race, ethnicity, education level, and marital status.

Sexual violence victimization: History and severity. History and severity of SV victimization was assessed using the modified Sexual Experiences Survey – Short Form Version (SES-SFV; Koss et al., 2006). The SES-SFV is a 35-item self-report measure

assessing seven types of unwanted sexual experiences, ranging from unwanted sexual contact to completed rape. Respondents indicate frequency of each experience from “0” to “3+.” With college women, the SES-SFV has demonstrated good internal consistency ($\alpha \geq .92$) and validity through significant correlations with the original, full version of the SES (Johnson et al., 2017). Internal consistency of the SES-SFV for the current sample was strong ($\omega_t = .94$).

Trauma history, PTSD symptoms and functional impairment. History of other traumas experienced, PTSD symptoms and functional impairment was assessed using the PTSD Checklist for DSM-5 (PCL-5; Weathers et al., 2013). The PCL-5 is a trauma history checklist and 20-item self-report measure that can be summed into a total score and divided into the four PTSD symptom clusters of the DSM-5. Respondents answered on a 5-point Likert scale ranging from 0 (*Not at all*) to 4 (*Extremely*). The PCL-5 has demonstrated good test-retest reliability ($r_s = .85$) and strong internal consistency ($\alpha = .94$) (Blevins et al., 2015). Internal consistency of the total score for the current sample was strong ($\omega_t = .93$).

Mental health treatment history. Participants’ history of receiving MH services were captured through the following questions: “Are you currently in mental health treatment?” “Have you ever disclosed your experience(s) of sexual violence to a mental health professional?”, “Have you ever received mental health treatment regarding your experience(s) of sexual violence?”, and “Have you ever had a negative experience with a mental health professional?” The first three questions were used to establish inclusion criteria.

Barriers to treatment. The Barriers to Mental Health Counseling Scale (BMHC; Shea et al., 2019) is a 27-item measure that assesses college students' perceived barriers to seeking MH services. Respondents answered on a 6-point Likert scale ranging from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). There are six subscales on the BMHC, including: Negative Perceived Value, Ingroup Stigma, Discomfort with Emotions, Lack of Knowledge, Lack of Access, and Cultural Barriers. All six subscales have been demonstrated to have good internal consistency ($\alpha \geq .74$;) and criterion-related validity (Shea et al., 2019). For the purposes of this study, Negative Perceived Value and Lack of Access scores were calculated. Internal consistency for the current sample was acceptable ($\omega_t = .65$ and $\omega_t = .83$) for these two subscales, respectively.

Stage of change. The University of Rhode Island Change Assessment (URICA; McConaughy et al., 1983) is a 32-item measure capturing an individual's stage of change. Respondents answered on a 5-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). The URICA can be scored by computing an Overall Readiness to Change score that classifies individuals as belonging in pre-contemplation (0-8), contemplation (8-11) or preparation and action (11-14) stages, or by computing four subscales, including Pre-contemplation, Contemplation, Action, and Maintenance. The URICA has been adapted to measure stage of change in relation to motivation to continue treatment and has been shown to have good reliability ($r \geq .88$; McConaughy et al., 1983). For the purposes of this current study, this version was minimally adapted to reflect stage of change regarding motivation to *initiate* treatment. Internal consistency for the current sample was acceptable ($\omega_t \geq .71$).

Treatment-Seeking Behavior. Treatment-Seeking Behavior was measured in two ways. First, participants were asked if they attended at least one session of therapy since the baseline assessment. Second, if participants had not already attended an appointment, they were asked whether they engaged in any other treatment-seeking behaviors, including contacting a MH professional or office staff to schedule an intake appointment, or other steps such as searching for treatment providers through their insurance.

Interventions

RESET and the psychoeducational control are single-session interventions that take approximately 0.5 hours to complete. Both interventions were designed in the Computer Intervention Authoring Software (CIAS; Ondersma, 2007). The CIAS is a computer platform that allows researchers to compile assessment measures and intervention components and deliver subsets of these based on participant responses. Participants accessed the interventions through a link to the CIAS website.

Reaching and Encouraging Survivors to Engage in Treatment (RESET).

RESET is an intervention aimed at increasing MH treatment seeking for symptomatic sexual violence survivors. It includes components aimed at overcoming common barriers and increasing intrinsic motivation to seek treatment. RESET was programmed to administer core intervention components for all participants, and supplemental components for participants who reported additional barriers to treatment initiation. Please see Appendix B for screenshots from RESET.

The first core component administered in RESET is personalized feedback based on participant responses to the PCL-5 (Weathers et al., 2013). This feedback is followed

by psychoeducation regarding SV experience, symptom presentation, MH treatment, and barriers to treatment-seeking. Psychoeducation was tailored to specific symptoms endorsed, with the goals of de-stigmatizing SV experience and related trauma reactions and linking individual symptom presentation to benefits of therapy.

Participants who endorsed items on BMHC-Ingroup Stigma, Discomfort with Emotions, and Cultural Barriers received additional validating statements. RESET reflected these concerns with the goal of providing validation and minimizing resistance. For instance, if participants reported any level of concern that “[their] family or significant other would judge [them] poorly if [they] disclose [their] problems to a mental health counselor,” RESET responded, “It sounds like you have some things stopping you from going to therapy. For one, you’re worried someone close to you would judge you if you saw a therapist.”

All participants in the RESET intervention condition were administered the second core component: a partial decisional balance. Designed to encourage participants to seek treatment despite reported obstacles, this component included questions to elicit benefits of attending therapy and negative consequences of not attending therapy. Research suggests that focusing on these aspects of a decisional balance is more conducive to behavior change than also including the positives of maintaining a problem behavior (Miller & Rose, 2015).

If participants reported any concrete barriers to treatment initiation, they received a problem-solving component. “Solvable” barriers were identified by endorsement of items on the BMHC-Lack of Access scale. An example of a barrier that was considered “solvable” is, “I don’t have the time to seek or stay in counseling.” For each of these

barriers, RESET prompted the participant to choose from a list of pre-generated solutions before generating their own.

The third core component of RESET aimed to empower participants through providing a list of questions that are helpful in finding an appropriate MH provider. This list consisted of items adapted from the “Identifying Trauma-Informed Providers” handout in the National Child Traumatic Stress Network Child Welfare Trauma Training Toolkit, 3rd Edition (e.g., “How familiar are you with the evidence-based treatment models designed and tested for treatment of trauma-related symptoms?”; Child Welfare Committee, NCTSN, 2013). Participants were given the option to add questions they had for providers based on any preferences and cultural concerns (e.g., female therapist from same cultural background) or previous negative therapy experience(s).

All RESET participants received a page of various MH referrals. RESET then engaged participants in the fifth core component, designed to specify steps in treatment initiation (e.g., call at least two providers on the referral list and ask them generated “therapy fit” questions). Participants were shown a calendar page with the option to schedule goals and receive free text-message reminders over the next three weeks.

Control condition. Participants in the control condition received the same psychoeducation materials as those in RESET, except this psychoeducation was standardized across participants and not specific to their symptom presentation. Materials in the control condition were presented without asking permission. Participants received the base set of questions to ask MH providers as well as the same MH referral options presented to participants in the RESET condition.

Procedures

All procedures were approved by the Institutional Review Board at St. John's University.

Recruitment, screening and baseline assessment. Participants were recruited 1) through the SONA undergraduate research participant pool at St. John's University, and 2) from other universities through faculty distributing recruitment materials with external IRB approval when required, and 3) through social media (i.e., Facebook and Instagram). Consent was administered through Qualtrics, a data management system (Provo, UT). After providing consent, participants completed assessment measures through the CIAS application on their computer, tablet, or mobile device. At the beginning of the application, participants were randomized to condition without stratification and asked to complete screening measures (i.e., demographics, SES-SFV, PCL-5, MH treatment history) determine eligibility for the study. Randomization occurred at the step prior to participants meeting inclusion criteria to allow for the participants in the RESET condition to experience MI style throughout the intervention, including in the assessment phase (i.e., asking permission to continue with question prompts). Those who met inclusion criteria were then asked to complete the baseline assessment of the BMHC and questions about perpetrator contact and perceived safety.

Intervention and post-intervention assessment. Immediately following baseline assessment, the CIAS application presented the remainder of RESET or Control components based on participant assigned condition. Four weeks following the intervention, participants in both conditions were be prompted to complete a post-intervention assessment through email, as well as through an automatic text message if

they provided their phone number at baseline assessment. Post-assessment included BMHC, URICA and Treatment-Seeking Behaviors, and was administered through Qualtrics. Participants were debriefed through an information page, describing that the purpose of the current study is to examine the efficacy of motivational techniques and problem solving in increasing Treatment-Seeking Behaviors. The email and text message included the incentive of being entered to win one of several gift cards upon completion of the assessment. Winners were picked after ending data collection for the current study.

Data Analytic Plan

Attrition and Data preparation. Out of the 118 participants who completed the baseline assessment and intervention, 78 completed the post-intervention assessment. Data were downloaded from the CIAS application as well as Qualtrics for both RESET and control conditions and analyzed in SPSS. To derive unbiased conclusions regarding the efficacy of RESET, all analyses were conducted as intent-to-treat (ITT; McCoy, 2017). For variables missing more than 40% of data, we deleted cases pairwise (i.e., by analyses), given that RCT results based on this large of a proportion of imputed data would be considered hypothesis generating only (Jakobsen, Gluud, Wetterslev, & Winkel, 2017). Descriptive statistics were calculated for baseline characteristics and outcome variables.

Baseline equivalence. We conducted analyses to examine whether there were baseline differences between intervention groups. These included chi-square tests for race/ethnicity and prior negative mental health experience (yes/no), as well as t-tests for age and any history of non-sexual interpersonal violence (PSS-SR5; Foa, 2013). The plan

was to enter variables resulting in significant χ^2 - and t -statistics as covariates in the analyses of study hypotheses.

Covariate analyses. We conducted analyses to identify covariates for main analyses. For the outcome of Treatment-Seeking Behaviors (yes/no), these included chi-square tests for race/ethnicity, prior negative mental health experience (yes/no), and t -tests for age and any history of non-sexual interpersonal violence (PSS-SR5; Foa, 2013). For the outcome of URICA-Readiness to Change, these analyses included ANOVAs for race/ethnicity and prior negative mental health experience (yes/no), and Pearson Correlations for age and any history of non-sexual interpersonal violence (PSS-SR5; Foa, 2013). We entered variables resulting in significant χ^2 -, t -, r - and F -statistics as covariates in the analyses of study hypotheses.

Main analyses. The first hypothesis was that participants who received RESET would be more likely to report engaging in any Treatment-Seeking Behaviors (yes/no) at post-intervention assessment than the participants who received the psychoeducational control. We used a logistic regression to examine this first hypothesis. Intervention condition was entered as the predictor variable and Treatment-Seeking Behaviors (yes/no) was entered as the criterion variable. Identified covariates as well as variables of interest (i.e., trauma characteristics/symptoms and barriers to treatment) were entered in earlier blocks of the model. The second hypothesis was that individuals who received RESET would report higher URICA – Readiness to Change post-intervention than individuals receiving psychoeducational control. We examined this hypothesis using a linear regression. Intervention condition was entered as the predictor variable, and post-intervention URICA Total Readiness to Change score (McConaughy et al., 1983) was

entered as the criterion variable. For each of these regression analyses, identified covariates and variables of interest (i.e., sexual violence severity, PTSD total symptoms, baseline perceived negative value of treatment, and baseline lack of access to treatment) were entered in earlier blocks of the model.

Results

Baseline Differences and Covariates

To ensure that randomization worked, we examined baseline differences between Intervention Conditions. Chi-square tests were conducted on Intervention Condition with Race/Ethnicity and Prior Negative Mental Health Experience (yes/no), and *t*-tests were conducted with Intervention Condition as the independent variable and age, sum of traumas experienced, SES-SFV, PCL-5, and BMHC-Negative Perceived Value and Lack of Access as dependent variables. Baseline equivalence was revealed by the lack of significant differences between the RESET and control conditions on all baseline characteristics (see Table 1).

To identify covariates for the logistic regression analysis on Treatment-Seeking Behaviors (yes/no), we conducted chi-square tests for Race/Ethnicity and Prior Negative Mental Health Experience (yes/no), and *t*-tests with Treatment-Seeking Behaviors (yes/no) as the independent variable and age and any history of non-sexual interpersonal violence (PSS-SR5; Foa, 2013) as the dependent variables. Based on the chi-square analysis, there was a trend between Race/Ethnicity and Treating-Seeking Behaviors, $\chi^2(3) = 7.08, p = .069$. We conducted Fisher's Exact tests for pairwise comparisons between racial/ethnic groups. Participants who identified as Minority race/ethnicity (i.e., Asian or African American/Black) were significantly less likely to seek treatment 26% ($n = 5$) than individuals who identified as Multiracial 66% ($n = 10$), $p = .036$. Participants who identified as Minority race/ethnicity were also significantly less likely to seek treatment than individuals who identified as Caucasian 60% ($n = 18$), $p = .039$. There were no

significant differences in Treatment-Seeking Behaviors (yes/no) among the other racial/ethnic groups.

To identify covariates related to URICA-Readiness to Change, we conducted ANOVAs with Race/Ethnicity and Prior Negative Mental Health Experiences (yes/no) as the independent variables and URICA-Readiness to Change as the dependent variable, and Pearson correlations for age and history of other trauma(s) experienced with URICA-Readiness to Change. There was a significant difference on Race/Ethnicity for URICA - Readiness to Change, $F(73) = 3.28, p = .026$. Tukey's post-hoc tests indicated that participants who identified as minority race (i.e., Asian or African American/Black) reported significantly lower URICA-Readiness to Change ($M = 8.06, SD = 1.96$) compared to those who identified as Multiracial ($M = 9.93, SD = 1.38$). The ANOVA for Prior Negative Mental Health Experiences (yes/no) and URICA - Readiness to Change was not significant, $F(70) = -1.48, p = .142$. Pearson correlations between age, $r(76) = .01, p = .937$, and a History of Other Trauma(s) Experienced, $r(74) = .10, p = .398$, and URICA - Readiness to Change were not significant.

Predictors of Treatment-Seeking Behaviors

To examine the effects of RESET on Treatment-Seeking Behaviors, we conducted a logistic regression with Race/Ethnicity in Block 1, SES-SFV and PCL-5 in Block 2, BMHC-Negative Perceived Value and Lack of Access in Block 3, Intervention Condition in Block 4, and Treatment-Seeking Behaviors (yes/no) as the criterion variable. As presented in Table 2, the Chi-Square was not significant for Blocks 4, 3, or 2. In Block 1, Race/Ethnicity showed a trend toward significant prediction of Treatment-Seeking Behaviors, $\chi^2(3) = 7.30, p = .063, R^2 = .119$. Based on odds ratios, participants

who identified as minority race (i.e., Asian or Black/African American) were 82% less likely to engage in Treatment-Seeking Behaviors than those who identified as multiracial (i.e., two or more races/ethnicities), $Exp(B) = .18, p = .023$.

Predictors of Readiness to Change Regarding Treatment Seeking

To examine the effects of RESET and other variables of interest on readiness to change regarding treatment seeking, we conducted a hierarchical linear regression with Race/Ethnicity in Block 1, SES-SFV and PCL-5 in Block 2, BMHC-Negative Perceived Value and Lack of Access in Block 3, Intervention Condition in Block 4, and URICA - Readiness to Change as the criterion variable. The R^2 -change for Intervention Condition was not significant (see Table 4). The R^2 -change was significant for Block 3 (see Table 4). The overall model with Blocks 1-3 was significant, $F(8,65) = 3.06, p = .005, R^2 = .274$. As presented in Table 5, BMHC-Negative Perceived Value at baseline was significantly negatively predictive of URICA - Readiness to Change. There was a trend for PCL-5 as a positive predictor of URICA - Readiness to Change. In addition, there was a trend for participants who identified as minority race (i.e., Asian or Black/African American) to report higher scores ($M = 8.06; SD = 1.96$) on the URICA - Readiness to Change than those who identified as multiracial ($M = 9.93; SD = 1.38$).

Discussion

The goal of the current study was to examine the effectiveness of RESET, a single-session technology-delivered intervention, in promoting treatment seeking and readiness to change in female college students with PTSD symptoms due to sexual violence. A randomized controlled trial with an active psychoeducational control condition was used to test the effectiveness of this intervention and explore other factors related to treatment-seeking and readiness to change. We found that RESET was no more effective than the control condition. Secondarily, race/ethnicity was related to both treatment seeking and readiness to change. In addition, perceived value of therapy and PTSD symptom severity were positively associated with readiness to change.

Effectiveness of RESET versus Psychoeducational Control

Participants who received RESET were no more likely to seek treatment or report higher readiness to seek treatment compared to those who received the psychoeducational control. This finding is consistent with similar studies that did not elicit significant improvements in treatment-seeking or readiness after delivering a one-session technology-delivered MI / engagement intervention (i.e., Esfahani, 2015; Putts, 2014). In the studies that found differences in treatment-seeking between the active and control conditions, the active condition much more intensive than in the current study. Seal and colleagues (2012) and Zanjani and colleagues (2008) conducted motivational/engagement interventions over four and two phone calls, respectively. Buckner and Schmidt (2009) conducted their motivational/engagement intervention over the course of three in-person meetings. Conversely, the control condition in the current study may be more intense than in other studies. In our control condition, participants received multiple components

that may have encouraged treatment seeking (i.e., psychoeducation, mental health referral options, questions to ask providers). In contrast, Zanjani and colleagues (2008) used a control condition in which participants received a letter and phone call reminder with upcoming appointment information, and Seal and colleagues (2012) provided participants in their control condition with the results of their mental health assessments and logistical information about mental health referrals.

Another difference from previous studies was that, in the current study, we included sexual assault survivors with no connection to a service agency for trauma treatment. Seal and colleagues (2012) included veterans who agreed to complete an initial screening phone call, and Zanjani and colleagues (2008) included veterans presenting at a medical center who accepted a referral for psychiatric care. Buckner and Schmidt (2009) recruited socially-anxious undergraduates who were willing to attend a baseline assessment in person on campus. Though we attempted to address the treatment avoidance that is common among sexual assault survivors (Ullman, 2007), the emerging adult sexual violence survivors in the current study did not need to demonstrate an initial willingness to engage in services on the phone or in person to be included the study.

Predictors of Treatment-Seeking Behaviors and Readiness to Change

Participants who identified as minority race (i.e., Asian or African American/Black) were less likely to seek treatment and reported lower readiness to seek treatment compared to individuals who identified as multiracial. This finding indicates that there are likely culturally-specific barriers to address within these racial/ethnic groups. For example, Ullman and Lorenz (2020) identified finances/lack of insurance as a major barrier for individuals identifying as African American or Black.

PTSD symptoms at baseline and perceived value of treatment were positively related to readiness to seek treatment. These findings are consistent with previous literature (e.g., Kirkner et al., 2018; New & Berliner, 2000; Shea et al., 2019; Sheerin et al., 2016; Ullman, 2007). Individuals in the current study with higher levels of PTSD may have been more likely to contemplate treatment given the distress caused by their symptoms and hope for relief. Regarding perceived value of treatment, previous research has identified this attitudinal barrier as unique in predicting help-seeking intention in a college-student sample beyond cultural barriers, lack of knowledge, and stigma (Shea et al., 2019). Individuals in our study were likely more ready to pursue treatment if they genuinely believed in its utility.

There are several null findings that are important to consider. There were no differences in treatment-seeking behaviors or readiness based on severity of sexual victimization. Our findings are consistent with research that defined treatment seeking as outpatient mental health utilization (New & Berliner, 2000), rather than formal help-seeking from a range of professionals including clergymen and primary care physicians (Lewis et al., 2005). For readiness to change specific to therapy usage, perhaps it is trauma reactions (i.e., PTSD) that is the important predictor rather than traumatic experiences. Given that PTSD was not related to actual treatment-seeking behaviors, it may be that symptoms increase awareness of the need for treatment, but do not reduce concrete (i.e., time and finances) or trauma-specific barriers (i.e., shame and self-blame).

Lack of access to treatment at baseline was not significantly predictive of treatment-seeking behavior or readiness to change in our sample. This finding is inconsistent with previous research that highlights concrete barriers such as time and

money as impediments to treatment seeking with SV survivors (e.g., Logan et al., 2005). Given that these are college students, they should have more access to treatment (e.g., their college counseling center) than other samples, making it less of a barrier .

Clinical Implications

The current study illuminated clinical implications for engaging emerging adult survivors of sexual violence. In order to bridge the gap between readiness and actual treatment seeking for survivors experiencing PTSD symptoms, special focus may need to be given to increasing the perceived value of treatment for those who identify as a single minority race. When establishing the utility of treatment for symptom relief, it could be crucial to consult with community members and leaders from these racial/ethnic groups. This could help to identify and address culturally-specific views about the usefulness and appropriateness of formal mental health treatment, and the ideal methods through which to deliver corrective information. Rodriguez and colleagues (2010) collaborated with members of urban Chinese and Latine communities and identified that their ideal ways of providing resources to crime victims differed (i.e., online and in a community Bodega, respectively). Similarly, there may be ideal settings in which to deliver psychoeducation about trauma-specific therapy for individuals who identify as Asian or African American/Black, such as a community center or church, or ideal administrators of engagement interventions, such as trusted community members. Culturally-sensitive messaging about what trauma therapy is and is not could help to dispel harmful misconceptions and promote treatment seeking behaviors.

Our findings highlight possible adaptations for RESET to improve its effectiveness. Given that our intervention condition was less intensive than those that

increased treatment-seeking in other studies, the effectiveness of RESET could be improved by a higher number of sessions over time or a hybrid phone/in-person component. Another avenue of improving RESET would be to embed this intervention within a technology-delivered trauma-informed treatment, to remove concrete barriers such of lack of transportation or access to affordable treatment, and account for information delivery preferences of emerging adults (i.e., technology over in-person). One such intervention is the *From Survivor to Thriver* program, which was shown to elicit significant decreases in PTSD and related symptoms over the course of nine technology-delivered treatment modules paired with therapist written- and video-feedback (Littleton, Grills, Kline, Schoemann, & Dodd, 2016). Finally, RESET did not account for baseline readiness to seek treatment, whereas therapists delivering motivational interviewing use an individual's stage of change to deliver MI flexibly and competently, such as by rolling with resistance. Some studies have used sophisticated technology to mirror more standard clinical practice (e.g., Becker et al., 2014) and RESET may benefit from such an adaptation.

Study Limitations

The current study has limitations in research design, participants, and measures that should be considered when interpreting findings. Because research design was missing a waitlist control, we were unable to evaluate the efficacy of the psychoeducational components alone. This is meaningful because psychoeducation has been shown to increase not only session attendance (Martinez et al., 2015), but also other dimensions of engagement such as homework and the therapeutic relationship (Becker & Chorpita, 2023). In addition, the follow-up period in which treatment seeking was

measured was only one month. Seal and colleagues (2012) demonstrated in their study that treatment initiation may take closer to 8- to 16-weeks for many individuals. It is possible that differences between intervention groups on higher-level treatment seeking (i.e., scheduling and attending an appointment) would have emerged at a later timeframe.

Inclusion and exclusion criteria for the current study may limit the scope of conclusions. Findings are generalizable only to female emerging adults attending college. This is problematic because emerging adult trauma survivors who are disconnected (i.e., not employed or in school) have been shown to have co-occurring difficulties such as substance use (Gilhooly et al., 2018). Additionally, the sample size was not large enough to reasonably detect important moderators, such as shame, guilt, and embarrassment (e.g., Allen et al. 2015). There may also be significant interactions of intervention condition with PTSD symptom severity and/or perceived value of therapy.

Lastly, there are measurement limitations in the current study that should be considered. Given that we did not assess readiness to change at baseline we were unable to measure change as a result of the interventions. In addition, baseline readiness to change may have influenced the effectiveness of the intervention, and including this measure could have provided guidance on further adaptations of RESET. To minimize participant burden and related attrition, we also did not measure trauma-related and trauma-specific attributions. These have been shown to relate to treatment-seeking and could have illuminated further implications of our study (e.g., Logan et al., 2005).

Future Research Recommendations

Future research studies examining technology-delivered engagement interventions should account for several factors to improve methodology, such as sample size, a

waitlist control, and longer-term follow-up assessments. A larger sample size would allow researchers to explore moderation effects of constructs such as trauma attributions and PTSD. This would also increase the likelihood of having adequate representation of individuals identifying as single minority races, such as Asian or African American/Black, and allow researchers to parse out important differences in engagement needs. Including a waitlist control group would be an ethical method of parsing out effects of psychoeducation from motivational and engagement components. Additional assessments timepoints across a longer period of time should also be considered to account for a potential delay in treatment-seeking behaviors. The authors received a scholarship from the American Psychological Foundation to fund 6- and 12-month data collection to explore longer-term intervention differences between groups. This data collection is currently underway.

Table 1*Baseline Descriptive Statistics of the Sample by Intervention Group*

Variable	Control (N = 33)		Intervention (N = 45)		<i>p</i>
	n	%	n	%	
Race/Ethnicity					.920
Caucasian	13	39.4	17	37.8	
Multiracial	6	18.2	9	20.0	
Hispanic/Latine	5	15.2	9	20.0	
Minority Race	9	27.3	10	22.2	
Other Traumas Endorsed					.669
Physical Abuse/Assault	9	11.5	9	11.5	
Natural Disaster	5	15.2	8	17.8	
Accident	5	15.2	10	22.2	
Illness	6	18.2	5	11.1	
Negative Mental Health	13	28.9	12	36.4	.485
Experience					
	M	SD	M	SD	
Age	20.2	1.7	20.1	1.2	.671
SES-SFV - Sexual Violence	3.1	2.0	3.7	1.9	.168
Severity					
PCL-5 - PTSD Total Symptoms	24.7	16.9	27.1	17.5	.547
BMHC - Negative Perceived	8.9	4.7	8.9	5.9	.952
Value					
BMHC - Perceived Lack of	9.0	5.6	8.9	5.4	.949
Access					

Note: N = 78; p-values included for tests of significant differences on variables between intervention conditions.

Table 2

Logistic Regression Predicting Treatment-Seeking Behaviors: Incremental Variance at Each Step

Variables	χ^2	p	<i>Nagelkerke R²</i> <i>per block</i>
Block 1: Demographic Covariate	7.295	.063 t	.119
Race/Ethnicity			
Block 2: Trauma Characteristics/Symptoms	2.937	.230	.045
SES-SFV - Sexual Violence Severity			
PCL-5 - PTSD Total Symptoms			
Block 3: Barriers to Treatment Seeking	3.250	.197	.048
BMHC - Negative Perceived Value			
BMHC - Perceived Lack of Access			
Block 4: Intervention Effects	.819	.365	.011
Intervention Condition			

Note: t = trend at $p < .10$

Table 3*Logistic Regression Predicting Treatment-Seeking Behaviors: Variables in Final Model*

Variables	Wald	Exp(B)	95% CI		p
			LL	UL	
Race/Ethnicity					
Hispanic/Latine	.820	.500	.112	2.241	.365
Minority	5.194	.179	.205	2.748	.023*
Caucasian	.189	.750	.041	.786	.664

*Note: * = $p < .05$; Exp (B) is the odds ratio relative to the comparison group (i.e., Multiracial).*

Table 4

Hierarchical Linear Regression Predicting URICA – Readiness to Change: Incremental Variance at Each Step

Variables	R^2 <i>change</i>	F change	p	$df1$	$df2$
Block 1: Demographic	.123	3.28	.026*	3	70
Covariate					
Race/Ethnicity					
Block 2: Trauma	.026	1.04	.361	2	68
Characteristics/Symptoms					
SES-SFV – Sexual Violence					
Severity					
PCL-5 – PTSD Symptom					
Total					
Block 3: Barriers to Treatment	.123	5.58	.006**	2	66
Seeking					
BMHC – Negative Perceived					
Value					
BMHC – Perceived Lack of					
Access					
Block 4: Intervention Effects	.023	2.08	.154	1	65
Intervention Condition					

*Note: * = $p < .05$, ** = $p < .01$*

Table 5

Hierarchical Linear Regression Predicting URICA - Readiness to Change: Variables in Final Model

Variables	<i>B</i>	β	<i>t</i>	<i>p</i>	<i>Bivariate r</i>	<i>Partial r</i>
Race/Ethnicity						
Hispanic/Latine versus Multiracial	-.682	-.129	-.955	.343	.019	-.117
Minority race versus Multiracial	-1.203	-.292	-1.995	.050 t	-.288	-.239
Caucasian versus Multiracial	-.725	-.198	-1.380	.172	.016	-.167
SES-SFV - Sexual	.000	.000	-.003	.998	.155	.000
Violence Severity						
PCL-5 - PTSD Symptom Total	.025	.237	1.789	.078 t	.177	.215
BMHC - Negative Perceived Value	-.098	-.286	-2.452	.017*	-.376	-.289
BMHC - Perceived Lack of Access	-.055	-.164	-1.352	.181	-.270	-.164

Note: $t = trend$ at $p < .10$, * = $p < .05$. Multiracial used as comparison group for race/ethnicity dummy-coded variables.

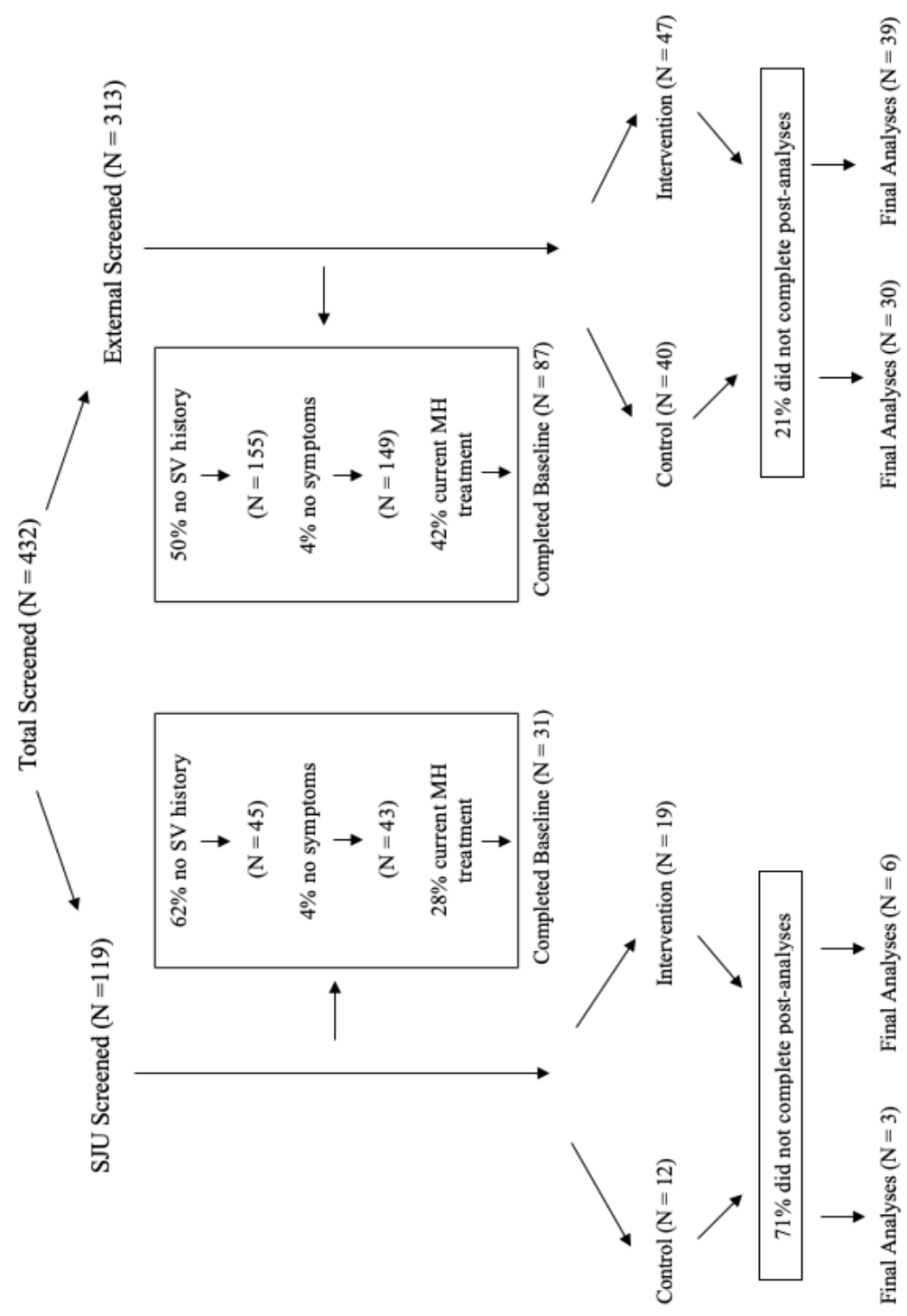


Figure 1. Consort flow diagram

Appendix A Demographic Form

What is your age? _____

What is your grade level in college?

- Freshman
- Sophomore
- Junior
- Senior

What race and ethnicities would you use to describe yourself? (Please select all that apply)

- Hispanic or Latino/a/x
- Black
- African American
- Caribbean
- Native American or Alaska Native
- East Asian (e.g., Chinese, Korean, Japanese)
- South Asian (e.g., Indian, Pakistani, Bangladeshi)
- Southeast Asian (e.g., Filipino, Vietnamese, Cambodian)
- African
- Afro-Guyanese
- Indo-Guyanese
- Guyanese (other/not-specified)
- Afro-Trinidadian
- Indo-Trinidadian
- Trinidadian (other/not-specified)
- Caucasian or White
- Middle Eastern
- Native Hawaiian or Pacific Islander
- Other (Specify: _____)

Please select your marital status:

- Single
- Married
- Divorced
- Separated
- Widowed


Appendix B Screenshots of RESET



You reported that you are having intrusion symptoms of PTSD.



These are things like:

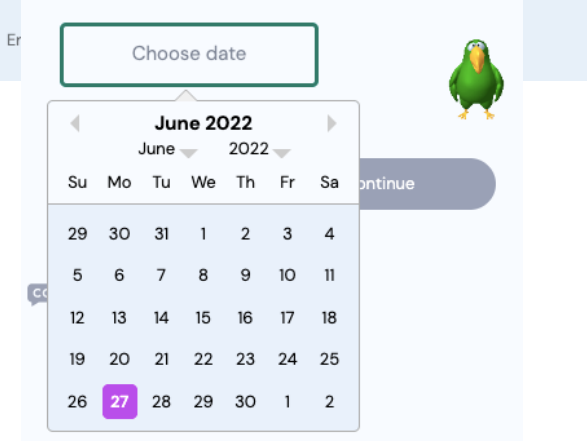
-  ○ Memories of what happened popping into your head or having dreams about what happened
- Feeling like you are experiencing what happened all over again
- Having intense negative emotions or body reactions



Problem: You don't have time for therapy and/or have too many responsibilities that would prevent you from seeking therapy

Possible Solutions:

- Ask someone to take over one responsibility for me, at least for a little while, to free up time to go to therapy
- Designate a "Me Day" or part of day where I focus only on me and what I need, including therapy
- Talk to my friend, family member, and/or significant other and say I need some time to take care of myself
- Find a therapist that is willing to see me online, to cut out any commute time
- Brainstorm one or more things on my plate that I can get rid, at least temporarily (therapy isn't forever!)
- Find a therapist who offers less conventional session times when I am available, like weekend mornings



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