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An Examination Of Rural Help-Seeking Behaviors Related To Sexual Violence And Mental Health And Well-Being Outcomes

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AN EXAMINATION OF RURAL HELP-SEEKING BEHAVIORS RELATED TO SEXUAL VIOLENCE AND MENTAL HEALTH AND WELL-BEING OUTCOMES

by

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Title An Examination of Rural Help-Seeking Behaviors Related to Sexual Violence and Mental Health and Well-Being Outcomes

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Dacia Oberhelman
February 17, 2021

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For small towns and rural communities.

ABSTRACT

Those who experience sexual violence face numerous barriers in gaining access to resources. Additionally, choosing to seek help following an unwanted sexual experience is a difficult decision that is impacted by attitudes, subjective norms, and perceived behavioral control. The Theory of Planned Behavior addresses how these variables can help explain one's intent to seek help following an unwanted sexual experience. Seeking help following an unwanted sexual experience has also been suggested to be increasingly difficult for those in rural communities due to additional barriers such as: fear of community and family backlash, lack of anonymity, fear of perpetrator(s) discovering services are being sought, heightened traditional gender norms, and increased acceptance of patriarchal attitudes. Unwanted sexual experiences and a lack of access to resources is also suggested to effect sexual health, mental health, and overall well-being.

Given this, the current study used the Theory of Planned Behavior (TPB) to understand rural and non-rural persons' intentions to seek help related to sexual violence. Specifically, the relationship between attitudes, subjective norms, perceived behavioral control (PBC), help-seeking intentions, and help-seeking among those who have experienced sexual violence, in a national sample of rural and non-rural populations, was examined with structural equation modeling. The impact of help-seeking on mental health and well-being outcomes was also examined in this model.

Results provided support for this model in predicting intentions and help-seeking among those who have experienced sexual violence but did not provide support for differences in help-

seeking among rural and non-rural groups. Of the three TPB variables examined – attitudes, subjective norms, and PBC – subjective norms had the strongest, significant relation to intent to seek help, followed by attitudes. PBC had a nonsignificant negative relationship intent to seek help. Intent was the strongest predictor of help-seeking intentions. Lastly, the outcome of depression was found to have significant positive relations with intent and help-seeking. Implications are discussed.

CHAPTER I

INTRODUCTION

Sexual violence is a pervasive issue that affects all areas of the country (Annan, 2006). Despite nationwide efforts to promote sexual health, such as increasing interventions and resources that raise awareness, reduce stigma, and prevent sexual violence, the implementation of these actions and the availability of resources following sexual violence in rural communities is often overlooked (Annan, 2006). Given these numerous barriers, the current study seeks to understand the differences in help-seeking intentions and help-seeking behaviors related to sexual violence among those who reside in rural areas compared to those who reside in non-rural areas.

Sexual Health, Mental Health, and Well-being

Sexual health has been defined as:

> A state of physical, emotional, mental, and social well-being…not merely the absence of disease, dysfunction, or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence (Centers for Disease Control and Prevention, 2016, n.p.).

If sexual health is viewed as a spectrum, sexual violence could be said to be one side of that spectrum. For instance, compared to sexual health, sexual violence is defined by the Centers of Disease Control and Prevention (2016) as a sexual act committed against someone without that

person's freely given consent and includes attempted or completed penetration, unwanted sexual contact, and unwanted sexual attention that does not involve physical contact (Basile et al., 2014). Thus, in order to promote sexual health in a comprehensive manner, preventing and addressing factors that perpetuate sexual violence and limit its treatment when it occurs, alongside supporting the promotion of positive and respectful sexual behaviors, is critical.

One's experience of sexual health and sexual violence influences mental health and well-being. For instance, those who have increased positive sexual health are more likely to have increased mental health outcomes and greater well-being (Higgins et al., 2011; Kleinstauber, 2017). Whereas those who reported experiences of sexual violence, such as unwanted sexual experiences, intimate partner violence, or sexual dysfunction tend to experience greater depressive symptoms, increased use of mental health services, and lower well-being compared to the general population and those with positive sexual health (Campbell, 2008; Kleinstauber, 2017; Matheson et al., 2015). With many differing experiences of sexual health, other factors such as level of rurality may also impact one's sexual health as well.

There are a number of unique considerations related to sexual health, mental health, and well-being in rural communities. Rural is a term that has been defined in numerous ways. For the purposes of this study, rural was considered as areas that are "nonmetropolitan" or that have a population of 49,999 or less (United States Department of Agriculture [USDA], 2019). Whereas urban was defined as metropolitan or those areas with populations 50,000 or more (USDA, 2019a). Research suggests that those living in rural areas have an increased likelihood of experiencing intimate partner violence, domestic violence, and sexual violence (Edwards, 2015; Peek-Asa et al., 2011; Schwab-Reese & Renner, 2017). Lifetime prevalence of intimate partner violence has been found to be higher in rural locations and isolated rural locations, with greater

severity as rurality increases (Peek-Asa et al., 2011). Specifically, for rural female populations, 3.9 women per 1,000 people have experienced rape, sexual assault, robbery, or physical assault by an intimate partner (United States Department of Justice, Bureau of Justice Statistics, 2008). Whereas 0.8 rural men per 1,000 people have experienced rape, sexual assault, robbery, or physical assault by an intimate partner (United States Department of Justice, Bureau of Justice Statistics, 2008). When examining sex crimes in rural versus non-rural areas, crime statistics suggest that sex crimes are less likely to occur in rural versus urban areas (Federal Bureau Investigation, 2017). However, these statistics may also be artificially low due to lower rates of reporting in rural communities (Federal Bureau Investigation, 2017). With significant barriers to address these concerns compared to their non-rural counterparts, rural survivors commonly experience increased negative mental health outcomes, poorer overall well-being, and worse psychosocial and physical health outcomes compared to non-rural counterparts (Breiding et al., 2009; Edwards, 2015; Peek-Asa et al., 2011). Given the importance of sexual health, the rate at which sexual violence occurs, and the lack of knowledge and resources on these topics in rural communities, further examination with this population is necessary.

Help-Seeking Related to Sexual Health in Rural Populations

Not seeking mental health services following an unwanted sexual experience may also impact a survivor's mental health and well-being. Research suggests that less than 35% of survivors seek professional help, and in a national college sample, only 1% of sexual assaults were disclosed to mental health professionals (Ullman, 2007). Of those survivors who seek help, approximately two-thirds (69.6%) do so from non-professionals, such as friends and family members, and they were more likely to disclose the unwanted sexual experience a year or more later (Ullman, 2007). Furthermore, challenges related to help-seeking are even more prominent

in rural populations due to a number of barriers. For instance, help-seeking in rural areas is often limited by access to services (e.g., distance needed to travel), lack of services (e.g., availability), knowledge of services, and perceived helpfulness of services (Wrigley et al., 2005).

Beyond the considerations mentioned, one of the largest barriers to help-seeking across mental health considerations, including sexual violence survivors, is the experience of mental health stigma (Ullman, 2007). There are many forms of stigma, which often contribute to perceptions of being undesirable or socially unacceptable. One form, public stigma, involves stigma perceived by others; another form, self-stigma, involves internalizing or labeling oneself as undesirable or unacceptable (Corrigan, 2004; Vogel, et al., 2006; Vogel et al., 2007). It is argued that public- and self- stigma contribute to the low rate of help-seeking by those experiencing mental health concerns, such as those experienced by sexual violence survivors, due to the stereotypes, prejudice, and discrimination stigma often elicits. Subsequently, this can also negatively impact important life opportunities (e.g., employment, access to housing, relationships; Corrigan, 2004).

Stigma related to mental health help-seeking for rural persons who have encountered an unwanted sexual experience is often exacerbated and presents as a significant barrier, typically beyond that of non-rural persons (Edwards, 2015; Peek-Asa et al., 2011; Schwab-Reese & Renner, 2017). This is due to a number of considerations, such as: fear of community and family backlash, lack of anonymity, fear of perpetrator(s) discovering services are being sought, increased traditional gender norms, and increased acceptance of patriarchal attitudes (Annan, 2006; Logan et al., 2005; Rennison et al., 2013; Riddell et al., 2009; Schwab-Reese & Renner, 2017). Due to stigma, rural women who have experienced an unwanted sexual experience are less likely to be referred to services, are more likely to resist seeking help until it is perceived as

life threatening, and if help is sought following sexual violence, they are more likely to use informal versus formal help-seeking, (e.g., Anderson et al., 2014; Edwards, 2015; Riddell et al., 2006; Roberto et al., 2013). As a result of the limited amount of research focusing on sexual violence help-seeking in rural populations, little is known about rural persons' sexual violence help-seeking behaviors, warranting further research.

Theory of Planned Behavior

In determining the intentions to perform behaviors, one of the most widely supported theories is the Theory of Planned Behavior (TPB; Armitage & Conner, 2001). The TPB is a theory central to determining a person's intention to perform a behavior. Three major components encompass this theory including individual attitudes, subjective norms, and perceived behavioral control (PBC; Armitage & Conner, 2001), which form a person's intention to perform a behavior (Ajzen & Manstead, 2007).

The TPB has largely been used to predict the intentions of performing health-related behaviors. This has included predicting the intention of help-seeking related to mental health concerns, such as suicidality, substance use, and personal-emotional problems (Deane et al., 1999; Hess & Tracey 2013; Skogstad et al., 2006). Specifically, it is suggested that those with more positive attitudes toward help-seeking and those with more positive experiences related to previous help-seeking are more likely to have higher intentions to seek help (Bohon et al., 2016; Deane et al., 1999).

Seeking help, or having the intention to seek help, has also been suggested to have positive outcomes related to mental health and well-being. For instance, related to the TPB, those who had previous positive contact with helping professionals were more likely to seek help for a personal-emotional problem than those who felt prior contact with helping professionals was

"unhelpful" (Deane et al., 1999). This suggested those with positive help-seeking experiences are more likely to do so again, which may increase mental health and well-being outcomes. Further, it is widely known that professional mental health services can improve mental health symptoms as well as a person's overall well-being (e.g., American Psychological Association Practice Organization 2011; Corrigan, 2004). Thus, further understanding how to increase the intention of rural persons' help-seeking may not only improve their utilization of services, but also their overall functioning.

Past research supported the TBP's ability to predict intentions to seek help; therefore, it may also help understand differences in help-seeking behavior intentions related to sexual violence. This study utilized the TPB to further examine differences in help-seeking intentions related to sexual violence among rural persons and non-rural persons.

Present Study

This study served as a novel examination of rural person's intentions to seek help related to sexual violence. Specifically, this study aimed to understand the relationships between attitudes, behaviors, and PBC and intentions to seek help, help-seeking itself, and mental health and well-being among rural persons and non-rural persons who experienced sexual violence.

CHAPTER II

METHOD

Participants

Participants included a national sample of 207 adults who identified as experiencing an unwanted sexual experience. Participants ranged in age from 18-61 (M = 28.13; SD = 8.61). Participants' gender included men (n = 14, 6.8%), women (n = 172, 83.1%), transgender women (n = 2, 1%), transgender men (n = 6, 2.9%), and nonbinary individuals (n = 12, 5.8%). Participants' self-reported races and ethnicities included Asian/Asian American (n = 7, 3.4%), Black (n = 3, 1.4%), Hispanic/Latino/a/x (n = 13, 6.3%), White (n = 164, 79.2%), Native American/Indigenous (n = 5, 2.4%), and Multiracial (n = 12, 5.8%).

Participants were grouped as rural (n = 71, 34.3%) or non-rural (n = 136; 65.7%) using rural-urban commuting area **(**RUCA) codes. 43 out of 50 were represented within this sample. RUCA codes are based on national census data that classify areas into metropolitan, micropolitan, small towns, and rural commuting areas (USDA, 2019a). Whole numbers (1-10) delineate these classification areas and can be identified by zip code (USDA, 2019a). A higher number (e.g., 10) indicates increased rurality, while a lower number (e.g., 1) indicates non-rural areas. RUCA codes were created by Economic Research Services and have been used in previous research to identify level of rurality (e.g., Edwards, 2015; McCall-Hosenfeld et al., 2015; Peek-Asa et al., 2011). For the purposes of this study, RUCA codes of 1-3 were defined as metropolitan or non-rural, and RUCA codes of 4-10 were defined as rural. The percentages previously reported may not sum to 100% due to demographic data that were not reported.

Measures

Help-Seeking

The Actual Help-Seeking Questionnaire (AHSQ) was used to measure help-seeking behaviors (Rickwood et al., 2005). Help-seeking behaviors were assessed by providing a list of helping resources and inquiring about whether or not a participant has sought help from each resource (Rickwood et al., 2005). The AHSQ asked participants to identify if help was previously sought by responding "yes" or "no" to a list of resources (Rickwood et al., 2005). If a participant had sought help, the participant specified which source was used (e.g., family member, psychologist) and to briefly describe what type of problem help was sought for (Rickwood et al., 2005). See Table 1 for the current sample's internal consistency.

Table 1. Descriptive Statistics for Key Study Variables (N = 207)

	M	*SD*	α
Attitudes	22.36	6.20	.82
Subjective Norms	6.94	3.51	.66
Perceived Behavioral Control	23.04	4.69	.74
Intentions	14.49	5.93	.92
Help-Seeking	3.22	1.75	.47
Well-Being	32.99	14.74	.93
Mental Health	28.66	14.90	.94
Depression	10.07	6.35	.94

Help-Seeking Intentions

The Theory of Planned Behavior Instrument was developed by Hess and Tracey (2013) and was designed to assess psychological help-seeking for anxiety and depression, career concerns, and alcohol or drug use. The current study used the modified version of this measure to assess for psychological help-seeking related to sexual violence, which has been used in previous sexual violence help-seeking literature (Eubanks Fleming et al., 2018). Ajzen's (2006) recommendations were used to assess attitudes, subjective norms, and PBC, and intentions of

seeking help. Attitudes, subjective norms, and PBC were measured with a 7-point Likert scale (Hess & Tracey, 2013). For attitudes, five adjective pairs are used with a 7-point Likert scale including *harmful–beneficial, pleasant–unpleasant, good–bad, worthless–valuable,* and *unenjoyable–enjoyable* (Hess & Tracey, 2013). In a previous study, Cronbach's alphas were reported as .83, .89, and .78 for the attitude questions (Hess & Tracey, 2013). The attitude questions are summed across the five items, with higher scores indicating a greater positive attitude towards help-seeking (Hess & Tracey, 2013).

For subjective norms, three items were used, and the Likert scale ranges from 1 (*extremely likely*) to 7 (*extremely unlikely*; Hess & Tracey, 2013). Cronbach's alphas were reported as .82, .78, and .83 for subjective norms (Hess & Tracey, 2013). These three items were summed such that lower scores indicate greater positive perceptions toward psychological help-seeking (Hess & Tracy, 2013).

For PBC, four items were used, and the Likert scale ranges from 1 (*definitely false)* to 7 (*definitely true*) for two questions, 1 (*no control*) to 7 (*complete control*) for one question, and 1 (*strongly disagree*) to 7 (*strongly agree*) for one question (Hess & Tracey, 2013). The Cronbach's alphas were reported as .73, .74, and .69 (Hess & Tracey, 2013). These four items were summed, such that higher scores indicate higher control over the ability to solve a concern (Hess & Tracey, 2013).

For behavioral intention, three items were used and the 7-point Likert scale ranges from 1 (*extremely unlikely*) to 7 (*extremely likely*) for one question, 1 (*definitely* false) to 7 (*definitely true*) for one question, and 1 (*strongly disagree*) to 7 (*strongly agree*) for one question (Hess & Tracey, 2013). Cronbach's alphas were reported as .87, .90, and .91 (Hess & Tracey, 2013).

Items for behavioral intention are summed, such that higher scores indicate greater intention to seek help (Hess & Tracey, 2013). See Table 1 for the current sample's internal consistency.

Mental Health

The Depression Anxiety Stress Scale 21 (DASS) is a 21-item measure that contains three scales, including depression, anxiety, and stress (Lovibond & Lovibond, 1995). The DASS 21 was created based off of the original 42-item DASS (Lovibond & Lovibond, 1993). The DASS 21 was primarily developed to measure negative emotional symptoms (Lovibond & Lovibond, 1995). The DASS 21 was used to evaluate if those with increased intentions to seek help and if those who have sought help before have less negative emotional symptoms. Past research suggests that the DASS 21 has satisfactory reliability for all three factors: Depression ($\alpha = 0.91$), Anxiety ($\alpha = 0.81$), and Stress ($\alpha = 0.89$; Lovibond & Lovibond, 1995). This measure was also reported to be highly correlated with the Beck Anxiety Inventory ($r = 0.81$) and also correlated with the Beck Depression Inventory ($r = 0.74$; Lovibond & Lovibond, 1995). When completing the DASS 21, participants were asked to rate how often they have experienced each symptom over the past week on a 4-point Likert scale ranging from 0 (*did not apply to me at all*) to 3 (*applied to me very much, or most of the time;* Lovibond & Lovibond, 1995). Scores are obtained for each subscale by summing the relevant items (Lovibond & Lovibond, 1995). See Table 1 for the current sample's internal consistency.

Well-being

The Mental Health Continuum Short Form (MHC-SF) was created from the Mental Health Continuum Long Form (Keyes et al., 2008). The MHC-SF was developed to measure well-being and consists of 14 items (Keyes et al., 2008). Specifically, the MHC-SF measures the frequency that participants experience symptoms of positive mental health (Keyes et al., 2008).

The MHC-SF is reported to have excellent internal consistency and discriminant validity (Keyes et al., 2008). Three-month test-retest was reported to be .68 and .65 at 9 months (Keyes et al., 2008). Participants were asked to respond how often they felt "happy," for example, in the past month on a 6-point Likert format ranging from 1 (*never*) to 6 (*everyday*; Keyes et al., 2008). Scores were summed for each subscale to achieve a total score (Keyes et al., 2008). See Table 1 for the current sample's internal consistency.

Procedure

This study was approved by the University of North Dakota Institutional Review Board. There is no conflict of interest that would influence study outcomes. Participants were recruited through snowball sampling from social media (i.e., Reddit, Facebook, Instagram, Twitter), higher education institutions, academic listservs, and professional organizations (e.g., State Offices of Rural Health, Professional Psychology Organizations) that provide resources and assistance for survivors of sexual violence in the United States. The questionnaires were distributed to participants electronically via a Qualtrics link either within an email or an online platform depending upon how a participant was recruited. Participants were able to provide their email addresses to enter a drawing to receive one of four $25 Amazon electronic gift cards.

CHAPTER III

RESULTS

Preliminary Analyses

To assess patterns of missing data, Little's Missing Completely at Random (MCAR) test was conducted in SPSS for all study variables (Tabachnick & Fidell, 2013). Results were nonsignificant, $\chi^2(1902) = 1958.60$, $p = .175$, suggesting that the data was missing completely at random (Tabachnick & Fidell, 2013). Therefore, regression imputation was used to impute missing data (2.70%) via Amos. All study variables had absolute values of skew (-1.17 – 1.05) and kurtosis (-1.11 – 1.22) within acceptable ranges (Weston & Gore, 2006) and appeared normally distributed on histograms and box plots. Further, no significant outliers were identified. See Table 1 for study variables' means and standard deviations. Correlations analyses were conducted for all key study variables. Correlations were as expected and significant among key study variables including the TPB variables and intentions. See Table 2 for correlations among the study variables.

Table 2. Correlations Between Key Study Variables

N = 207	1	2	3	4	5	6	7
1. Attitudes	--						
2. Subjective Norms	.21**	--					
3. Perceived Behavioral Control	.35**	-.17**	--				
4. Intentions	.43**	-.43**	.19**	--			
5. Help-Seeking	.13	-.35**	.03	.47**	--		
6. Well-Being	.31**	.11	.23**	-.09	-.14*	--	
7. Mental Health	-.28**	-.22**	-.30**	.18*	.25**	-.70**	--
8. Depression	-.32**	-.19**	-.26**	.12	.25**	-.81**	.89**

Note: **Correlation is significant at .05 level.

Main Analyses

Data were analyzed using SPSS Version 27 (IBM Corp, 2020) and IBM SPSS AMOS 25 (Arbuckle, 2017). AMOS was used to test the hypothesized TPB model which consisted of attitudes, subjective norms, and PBC predicting intentions; intentions in turn predicting help-seeking; and help-seeking in turn predicting mental health and well-being outcomes (see Figure 4). Multi-group modeling was also used to examine the differences between a rural and non-rural sample by using rural versus nonrural as a grouping variable. A two-step modeling approach was used. First, a confirmatory factor analysis (CFA) was conducted using maximum likelihood estimation to test the adequacy of the measurement model, and then, SEM was used to examine if the hypothesized model fit with the data.

Moderation was conducted using multi-group modeling to identify variance across groups. A prerequisite for testing invariance across structural paths in the full structural model (step 2) is that the measurement model has configural and metric invariance. Configural invariance was examined by testing the fit of the modified measurement model (see the

Measurement Model section) separately for rural and non-rural participants and by testing the fit of an unconstrained multi-group model. Metric invariance was examined by comparing a multi-group model with all factor loadings constrained equal to the baseline configural model in which the factor loadings were free to vary. The models were assumed non-invariant if the change in chi-square was significant and the decrease in the comparative fit index (CFI) was less than 0.01 (Cheung & Rensvold, 2002).

Model Testing

SEM in AMOS (Arbuckle, 2017) was used to evaluate the hypothesized model using a two-step modeling approach where the measurement model and the structural model were examined separately. Modification indices and high, standardized residuals were examined to identify sources of misfit in the model. The chi-square test (X^2), CFI, and the root mean square error of approximation (RMSEA) were used as fit indices (e.g., Hair et al., 2009; Hu & Bentler, 1999). Although a significant X^2 can indicate a poor fitting model, this test is not reliable in larger samples (e.g., Tabachnick & Fidell, 2013). Criteria for the CFI and RMSEA have ranged from less conservative (CFI $\geq$ .90; RMSEA $\leq$ .10) to more conservative (CFI $\geq$ .95; RMSEA $\leq$ .08; e.g., Hair et al., 2009; Weston & Gore, 2006).

Measurement Model

The hypothesized measurement model was evaluated (See Figure 1). The hypothesized model did not have adequate fit to the data $X^2(1518) = 3061.01$, $p < .001$, CFI = .78, RMSEA = .07, 90% CI [.07, .07].

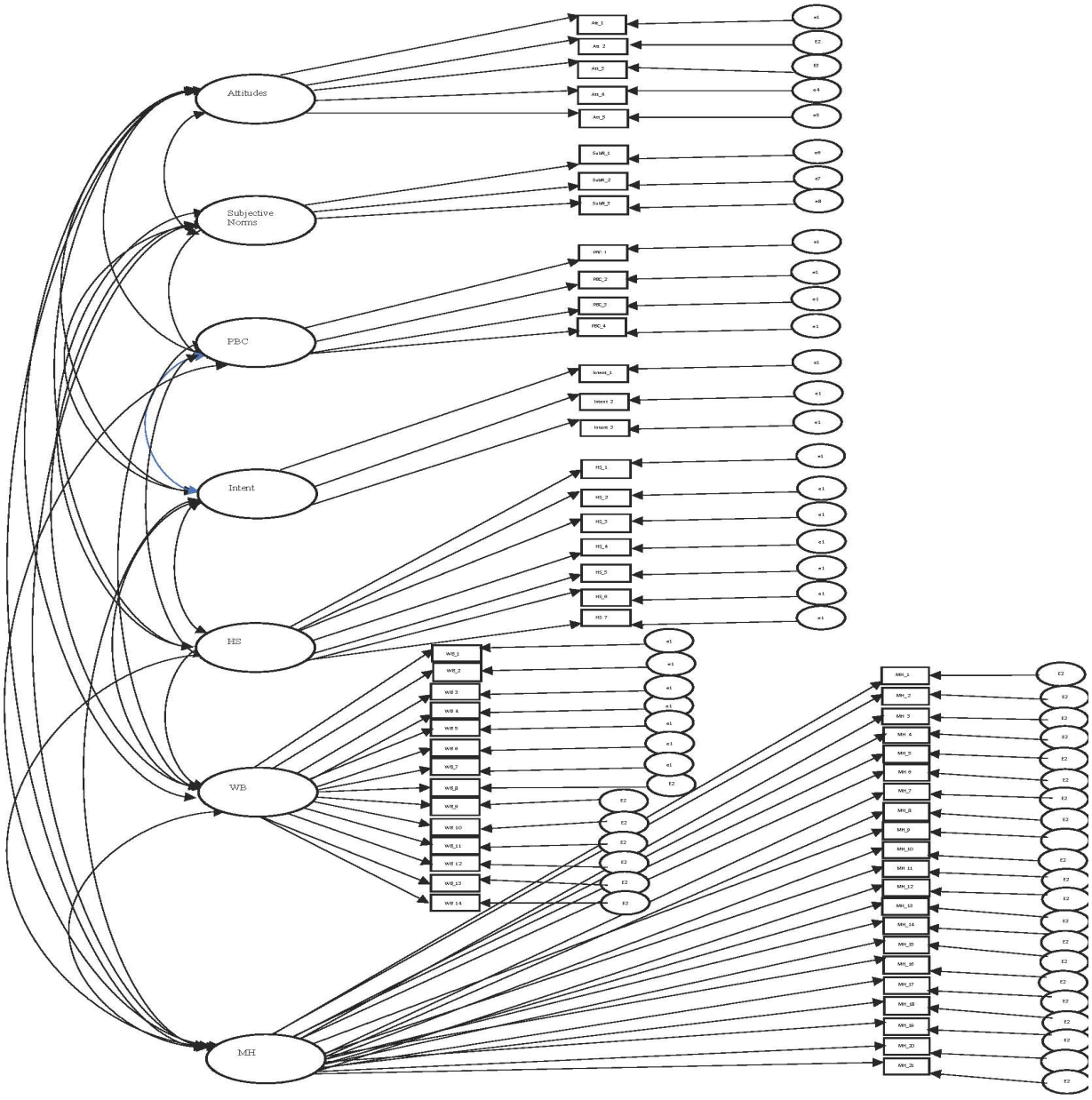

Figure 1. Original Hypothesized Confirmatory Factor Analysis

Due to the poor fit of the hypothesized model, factor loadings and areas of ill fit were examined to determine if adjusting the model would improve model fit. Areas of ill fit were examined using modification indices and standardized residuals. Notably, when examining modification indices, items two and five on the attitudes variable demonstrated especially high

covariance between error terms (M.I. = 109.98). Instead of eliminating the two items, the item errors were covaried on the basis of wording similarity/meaning to assist with model fit and maintain the original measure (Brown, 2006).

Individual CFAs for latent variables were also performed and examined to more clearly identify areas of misfit in the model. First, an individual CFA with well-being was conducted, which indicated poor fit statistics $X^2(77) = 371.73$, $p < .001$, CFI = .87, RMSEA = .12, 90% CI [.11, .14]; thus, the scale was removed. Second, a CFA with the latent variable mental health was conducted, which suggested the model performed best with the subscale of depression ($X^2[14] = 20.10$, $p = .13$, CFI = .99, RMSEA = .05, 90% CI [.00, .09]) and the removal of the anxiety and stress subscales. Third, a CFA with the latent variable help-seeking also demonstrated poor fit statistics ($X^2[14] = 61.31$, $p < .001$, CFI = .73, RMSEA = .13, 90% CI [.10, .16]), and the full measure was removed from the study. Given that the research question asked whether or not individuals sought mental health treatment, rather than using the entire help-seeking measure—which includes a variety of sources of help—a specific item was evaluated in the modified model. This item asked participants to select “yes or no" to if they have sought help from a “mental health professional (e.g., counselor, psychologist, psychiatrist).”

After including the correlation of error terms on items two and five of attitudes and the removal of the well-being scale and the subscales of anxiety and stress from the mental health latent variable, the modified CFA demonstrated good fit ($X^2[198] = 307.94$, $p < .001$, CFI = .96, RMSEA = .05, 90% CI [.04, .06]) (See Figure 2). Consequently, this measurement model was used as the basis for the structural model analysis.

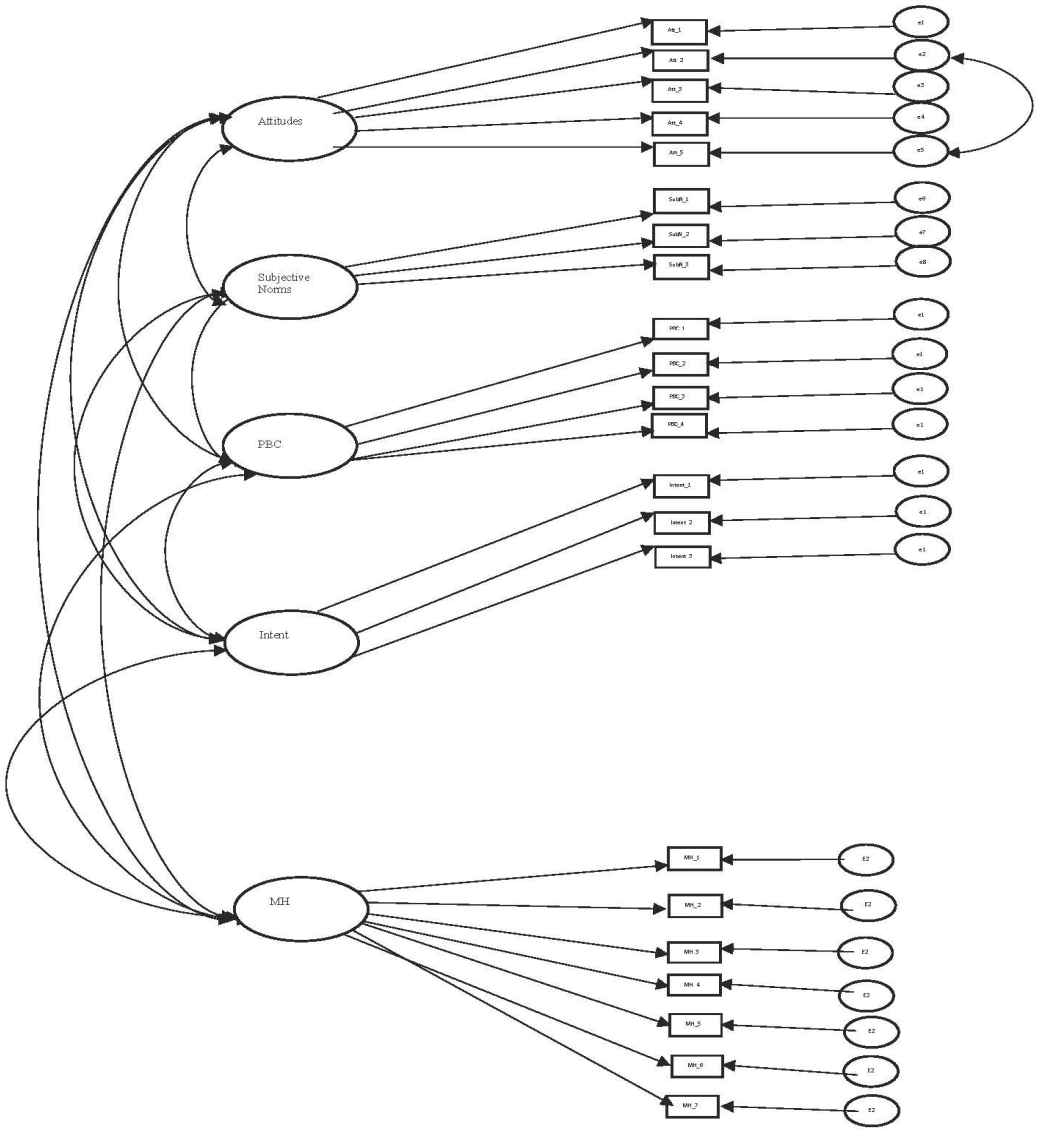

Figure 2. Modified Confirmatory Factor Analysis

Next, the grouping variables of rural and non-rural were examined with the modified model. The CFA with the grouping variable indicated good fit for the rural and non-rural models: (X^2[396] = 536.68 p < .001, CFI = .95 RMSEA = .04, 90% CI [.03 .05]). Group differences were then initially evaluated with a CFA via multigroup modeling with the modified model. Configural, metric, and structural invariance were examined with multi-group moderation analyses in SEM. Configural invariance was tested first, and adequate fit was indicated for the rural and non-rural models: (X^2[396] = 536.68, p < .001, CFI = .95, RMSEA = .04, 90% CI [.03, .05]).

Metric invariance was tested second, and goodness-of-fit indices remained robust for the rural model and non-rural models: (X^2[413] = 559.60, p < .001, CFI = .95, RMSEA = .04, 90% CI [.03, .05]). When compared with the configural model, the metric model did not indicate any significant differences, as there was no significant change in the CFI, ΔCFI = -.002 (Cheung & Rensvold, 2002) and no significant change in the chi-square: ΔX^2 (18) = 22.92; p = .15.

Structural invariance was tested with the rural and non-rural models: (X^2[428] = 588.09, p < .001, CFI = .94, RMSEA = .04, 90% CI [.03, .05]). When compared with the configural model, the structural model did not indicate any significant differences in the CFI, ΔCFI = -.007 (Cheung & Rensvold, 2002), but there was a significant change in chi-square: ΔX^2 (32) = 51.41, p = .02 when comparing the structural model with the configural model. However, given the mixed results between a nonsignificant ΔCFI and a significant ΔX^2 for structural invariance, it was assumed – based on the more conservative nature of ΔCFI – that there was no significant difference in structural level psychometric properties between the two groups (Byrne, 2016). This decision was also supported by the robust nature of the model fit indices, and consequently

group differences were examined with multi-group modeling in the structural model (Byrne, 2016).

Structural Model

Given that the measurement model that was originally hypothesized did not exhibit adequate fit, the structural model of the originally proposed model was not evaluated. (See Figure 3).

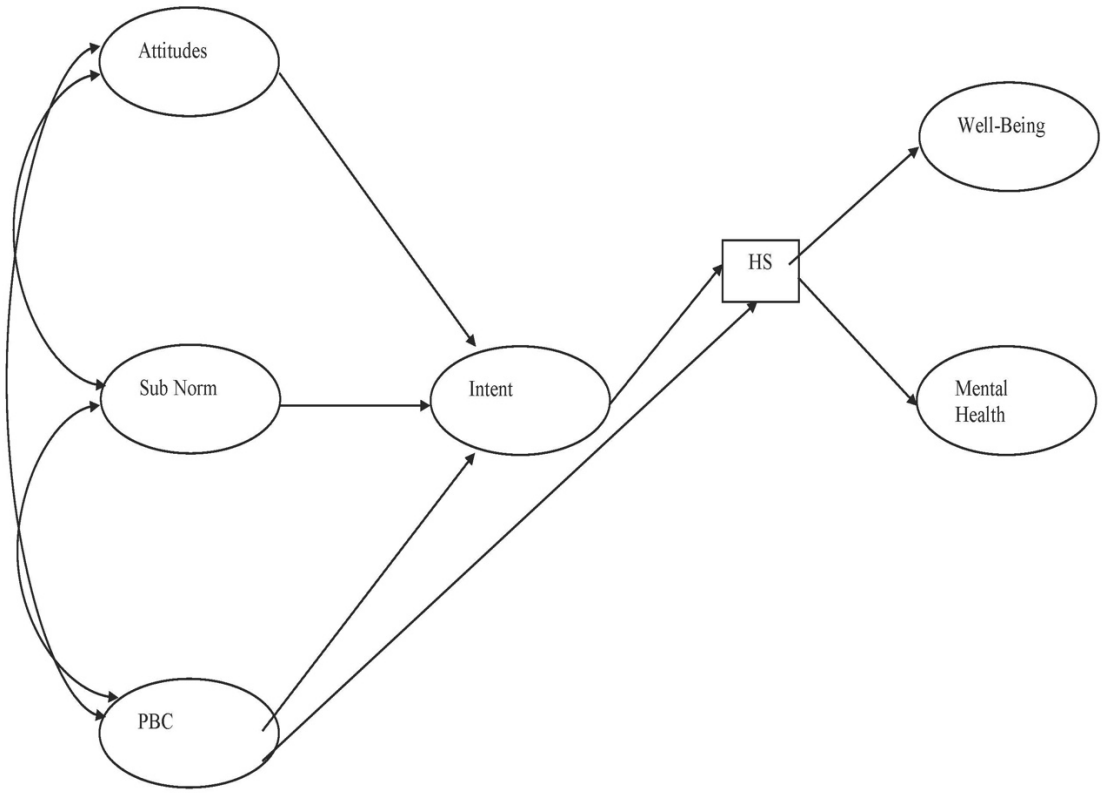

Figure 3. Original Hypothesized Structural Model

The modified structural model consisted of attitudes, subjective norms, and PBC predicting intentions; intentions in turn predicting the one-item mediator of help-seeking (binary item); and help-seeking in turn predicting depression as the outcome variable (See Figure 4). This structural model demonstrated good fit ($X^2[221] = 361.93$, $p < .001$, CFI = .95, RMSEA = .06, 90% CI [.05, .07]).

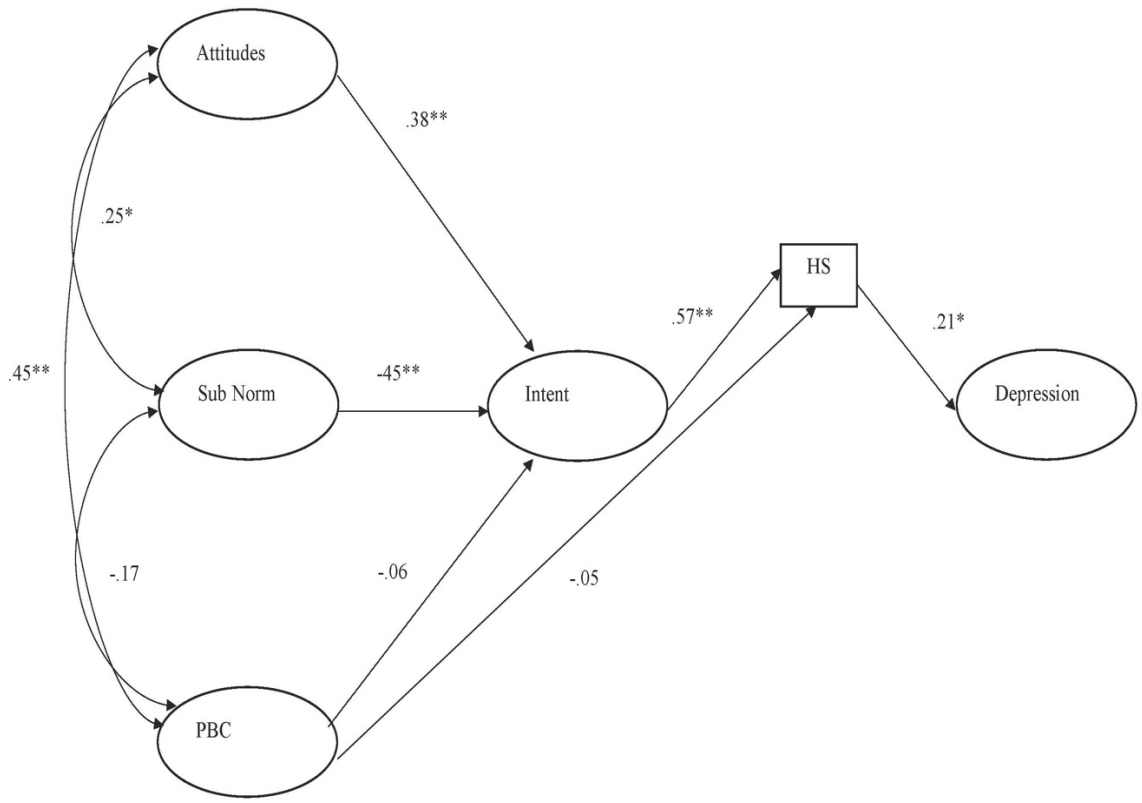

Figure 4. Final Modified Structural Model
Note: Estimates are standardized. * p < .05, ** p < .001

Utilizing this modified model, the differences between rural and non-rural participants' experiences were examined by using rural versus nonrural as a grouping variable in the model. The modified model also used one binary item to measure the behavior of help-seeking and this was used as a mediator within the model. The rural and nonrural models ($X^2[442] = 618.65$, $p < .001$, CFI = .94, RMSEA = .04, 90% CI [.04, .05]) both demonstrated similar and good fit.

Configural, Metric, and Structural Invariance. In order to test differences between the rural and non-rural groups, configural, metric, and structural invariance were examined with multi-group moderation analyses in SEM. Configural invariance was tested first, and adequate fit was demonstrated for the rural and nonrural models: ($X^2[442] = 618.65$, $p < .001$, CFI = .94, RMSEA = .04, 90% CI [.04, .05]).

Metric invariance was tested second, and goodness-of-fit indices remained robust for the rural and nonrural models: ($X^2[461] = 639.95$, $p < .001$, CFI = .94, RMSEA = .04, 90% CI [.04, .05]). When compared with the configural model, the metric model did not indicate any significant differences, as there was no significant change in CFI: ΔCFI = -.001 (Cheung & Rensvold, 2002) and no significant change in the chi-square: $\Delta X^2 (19) = 21.97$, $p = .19$.

Structural invariance was tested with the rural and nonrural models: ($X^2[488] = 673.24$, $p < .001$, CFI = .94, RMSEA = .04, 90% CI [.04, .05]). When compared with the configural model, the structural model did not indicate any significant differences, as there was no significant change in the CFI: ΔCFI = -.003, and there was no significant change in chi-square: $\Delta X^2 (46) = 53.75$, $p = .07$ (Cheung & Rensvold, 2002). Throughout the multi-group moderation analyses the structural models stayed robust; however, hypothesized group differences between rural and non-rural participants were not supported, as the models were not invariant.

CHAPTER IV

DISCUSSION

The present study used the TPB to test for hypothesized differences between rural and non-rural persons' help-seeking behaviors and subsequent mental health outcomes related to sexual violence. Specifically, the TPB was used to understand how help-seeking attitudes, subjective norms, PBC, and intentions predicted actual help-seeking and (in turn) mental health outcomes among rural and non-rural persons who previously experienced sexual violence. The results provided preliminary support for some TPB propositions, but also demonstrated the need for reevaluation among some of the predicted relationships within the model. How the findings of the current study show support for, as well as a lack of support for, a TPB-based model of help-seeking is discussed.

Initial Hypothesized Model

When examining the initial hypothesized model, results evidenced some areas that did not support a TPB-based model of help-seeking. More specifically, in the initial model the latent variables of help-seeking, well-being, and mental health indicated poor fit statistics with the CFA. The original proposed model was likely too complex given the number of outcome variables examined and the number of items per outcome of interest (Hair et al., 2009; Weston & Gore, 2006). Consequently, the model was modified by using a specific item for help-seeking rather than using the entire scale, and similarly only addressing the latent variable of "depression" as an outcome variable. In regard to the latter, the latent variables of mental health and well-being were both comprised of multiple subscales and were composed of a large number

of items, which may have contributed to increased error within these constructs and potentially in turn led to poor fit when conducting the CFA for the originally proposed model (Hair et al., 2009; Weston & Gore, 2006).

Modified Model

Due to the initial hypothesized model demonstrating poor fit statistics, a modified model was identified and examined. The modified model is described in further detail above. When examining the modified model, there was excellent fit, which overall showed support for the TPB to predict both intent to seek help and actual help seeking among survivors of sexual violence. However, the hypothesized differences in actual help-seeking among survivors of sexual violence between the two groups (rural and non-rural) were not supported, as results yielded no differences in model fit when moderated by group (rural and non-rural) membership. Specific findings in the modified model are discussed further below.

Modified Moderation Model

Multi-group moderation suggested that there were not significant differences in the TPB to explain potential group differences among rural and non-rural groups' intentions to seek help following an unwanted sexual experience. This suggests that both rural and non-rural groups' attitudes, subjective norms, and PBC are similar and have similar relationships with intent to seek help and actual help-seeking. The lack of group differences may be explained by small sample sizes in the groups (Hair et al., 2009). However, past literature that has examined differences in and barriers to help-seeking between rural and non-rural groups for unwanted sexual experiences and experiences of interpersonal violence has demonstrated mixed findings (e.g., Annan, 2006; Breiding et al., 2005; Logan et al., 2005; Rennison et al., 2012). Therefore, further research is warranted.

Several issues may contribute to past mixed results and the current study's lack of findings. First, results seem to be a part of a lack of clarity in the literature about differences in rural and non-rural. Rural and non-rural may both be difficult to define and has often been measured in several different ways in past research, which can impact findings and clarity of findings (USDA, 2019b). Past research that has examined rural and non-rural groups related to help-seeking and sexual violence is also limited and warrants updated and more recent research. Future research may benefit from how to more clearly and empirically define rural and non-rural and to continue exploring potential differences with more sophisticated analyses.

Second, an aspect that may contribute to difficulty defining rural and non-rural may be that it includes other identities (Moradi & Grzanka, 2017). For instance, access to resources, income, community attitudes, and age and their intersection with rurality may also influence a person's intent and desire to seek help. Additionally, intersecting identities such as social class, gender, race/ethnicity, and sexual orientation may be more salient for a person compared to their identity as a rural or non-rural person. Thus, this may impact intent to seek help more so than identifying as rural or non-rural. Personal values or barriers such as stigma towards mental health and help-seeking, attitudes towards mental health and help-seeking, and access may also impact a person's intent to seek help and could be more salient than rural or non-rural identities.

Attitudes

As predicted, positive attitudes about seeking help among individuals who had an experience of sexual violence had a direct and statistically significant positive relationship with intent to seek help. Also, higher levels of intent were positively associated with help-seeking from a mental health professional, and the indirect effect of positive attitudes to help-seeking, via intent was significant. This suggests that those who have higher positive attitudes toward help-

seeking and greater intentions to seek help are more likely to actually seek help from a mental health professional. Findings that positive help-seeking attitudes are positively associated with increased intent and increased help-seeking behavior directly align with the key tenets of the TPB (Ajzen, 1991; Armitage & Conner, 2001), but are also supported in previous research that suggests increased positive attitudes about seeking help is associated with both intent to seek mental health assistance and actual mental health help-seeking (e.g., Chen et al., 2015; Hess & Tracy, 2013; Smith et al., 2008).

For example, past research has suggested that college students with increased positive attitudes toward help-seeking was associated with increased intent and likelihood to seek help for anxiety or depression, general mental health concerns, career choice concerns, and alcohol or drug use (Chen et al., 2015; Hess & Tracy, 2013). Previous research also demonstrates similar strength and direction of attitudes (β =.59; Chen et al., 2015; β = .54; Smith et al., 2008) as the results found in this study (β =.38). Increased positive attitudes has also demonstrated success in predicting intent to engage in preventative health behaviors related to dental care, HIV/AIDS prevention, diabetes, sleep hygiene, smoking cessation, and chronic pain (Astrom et al., 2018; Brooks et al., 2017; Brooks et al., 2018; Lareyre et al., 2021; Lee et al., 2017; Siuki et al., 2017; Strong et al., 2017). These results and the current findings suggest that attitudes are an important antecedent to intent and actual help-seeking. Working to increase and develop positive attitudes toward mental health help-seeking after experiencing sexual violence with both rural and non-rural populations may likely increase intent to use services and actual engagement with services.

Subjective Norms

When examining the structural modified model, as expected, subjective norms, had a direct, significant negative relationship with intent to seek help for a problem that resulted from

an unwanted sexual experience. For subjective norms, lower scores indicated greater positive perception toward psychological help-seeking. Thus, results suggested that those with greater perceived social approval had greater intent to seek help and engaged in increased mental health help-seeking, which was convergent with the proposed model. Past research has suggested that higher perceived social approval may lead to increased intent to engage in health-related behaviors (e.g., Ajzen, 1991; Armitage & Conner, 200l; Armitage & Conner; 2000). Additionally, past literature that has explored help-seeking behaviors with the TPB has also found that subjective norms may have a strong relationship with intent to seek help (Codd & Cohen, 2003; Hess & Tracey, 2013; Pederson & Vogel, 2007). These results support that for both rural and non-rural groups that have experienced sexual violence, their belief about people's opinions they value or those they view as important has a large influence on their intentions and help-seeking behaviors. Thus, subjective norms are an important antecedent to intentions and help-seeking, and this relationship helps researchers and practitioners further understand help-seeking as it relates to sexual violence for rural and non-rural groups. This demonstrates that for rural and non-rural groups that subjective norms, or social approval, has a strong relationship with intent to seek psychological help.

Perceived Behavioral Control

PBC was hypothesized to have significant positive relations with intent to seek help and both direct and indirect significant positive relations with help-seeking. However, results indicated that PBC had a negative nonsignificant direct relation to intent to seek help. PBC also had a negative and nonsignificant direct relationship with help-seeking and a positive significant indirect relationship with help-seeking, via intent.

Past research suggests that higher PBC may lead to increased intent, and increased PBC may lead to increased behavior (Ajzen, 1991; Ajzen, 2002; Armitage & Conner, 2001). However, the relative importance of PBC may vary across situations and behaviors (Ajzen, 1991; Armitage & Conner, 2001). For instance, Ajzen (1991) explained that in situations where attitudes or subjective norms are more predictive of intentions, PBC may be less predictive. Also, in behaviors that are volitional, PBC may not offer more predictive power (Ajzen & Fishbein, 2005; Madden et al., 1992). Past research examining help-seeking intent behaviors have also found relationships of small magnitude between PBC and intent (Ajzen & Fishbein, 2005; Madden et al., 1992). This may suggest that for both rural and non-rural groups, PBC may not play as significant a role as attitudes and subjective norms for the volitional behavior of help-seeking. It may also suggest that the influence of PBC is minimal and that if one has the belief that they can address concerns on their own they may not be as likely to have intent to seek help from mental health professionals (Hess & Tracey, 2013).

Actual Help-Seeking and Depression

Actual help-seeking, which was hypothesized to have a significant negative relationship with depression, was instead found to have a significant positive relation with depression. This suggests that those who sought help from mental health providers were not more likely to have fewer symptoms of depression, which was divergent from the proposed model. Exploring outcomes of engaging in the behavior of help-seeking was a novel aspect of this study. Previous research suggests that seeking help from a mental health professional is commonly helpful in reducing experienced symptoms of depression (e.g., Rickwood et al., 2005). However, results suggested that participants in this study, both rural and non-rural, continued to experience symptoms of depression despite an increased behavior of help-seeking.

The unexpected finding between actual help-seeking and depressive symptoms may suggest this relationship is complicated. There are several possible explanations for these findings. For example, related to the treatment of depression, the results may suggest that interventions may have been less helpful for the participants in this study not based on rural/non-rural identities, but based on the presence or absence of resources. Specifically, treatment of depression for survivors of sexual violence and how it is tailored may need to be intentionally considered to best address mental health concerns and cultural differences that occur regardless of geographic region. Intentional considerations may include being knowledgeable of community resources, working with other community providers, being able to practice as a generalist, developing a strong referral network, and incorporating the use of technology to provide services such as telehealth (e.g., Bischoff et al., 2014; Chandra et al., 2020; Cohn & Tsai, 2020; Mohatt et al., 2005; Riding-Malon & Werth, 2014). Although differences in actual help-seeking and depression between rural and non-rural populations were not supported in this study, past research has found differences in help-seeking among these populations (Edwards, 2015; Logan et al., 2005). Others have also found mixed results when examining the differences in help-seeking between rural and non-rural groups (Rennison et al., 2012; Rennison et al., 2013), suggesting these are complicated constructs and confounding variables need further clarification.

Further, symptoms of depression in the context of sexual violence may also need to be treated differently compared to those who are experiencing symptoms of depression from other etiologies. For instance, it may be important to be aware of evidence-based treatments and interventions available for sexual violence. Moreover, it may also be important to understand perceived helpfulness of services provided given barriers and stigma that may exist for mental

healthcare (Wrigley et al., 2005). Fear of community and family backlash, lack of anonymity, fear of perpetrator(s) discovering services are being sought, increased traditional gender norms, and increased acceptance of patriarchal attitudes are other factors that area also important to consider when providing services for a client that has experienced sexual violence (e.g., Annan, 2006; Logan et al., 2005; Rennison et al., 2013; Riddell et al., 2009; Schwab-Reese & Renner, 2017).

This relationship may also suggest that people who are experiencing symptoms of depression are more likely to seek help from a mental health professional (Amstadter et al., 2009; Boerema et al., 2016). The correlation between actual help-seeking and depression may be bi-directional. For instance, given that our sample sought help from a mental-health professional, it would be reasonable that they may be experiencing some level of distress or be experiencing symptoms of depression. This study also did not have two measurement points such as pre- and post- intervention to understand if intervention had an impact on a person's reported levels of depression.

In summary, of the three variables, attitudes, subjective norms, and PBC, subjective norms had the strongest significant relationship with intent to seek help followed by attitudes. PBC had a nonsignificant negative relationship with intent to seek help. Intent was the strongest predictor of help-seeking behavior. Taken together, the TPB showed strong potential for explaining help-seeking for survivors of sexual violence in both rural and non-rural populations.

Practical Implications

The findings from the present study contribute to a body of literature examining the utility of the TPB and this theory's ability to measure intentions to seek help following sexual violence for rural and non-rural persons. Despite the occurrence of divergent findings, results can

help identify what may be most helpful for rural and non-rural communities to improve intentions to seek help if sexual assault is experienced by community members. Both rural and non-rural areas could focus on creating a community that encourages positive attitudes towards sexual violence help-seeking, foster buy-in and support for sexual violence resources and increases ease of access to services (Anderson & Overby, 2020; Logan et at., 2005).

Additionally, public health administrators, health care workers, and mental health professionals may find it beneficial to improve rural and non-rural person's level of PBC. Improving perceived level of behavioral control would allow survivors of sexual violence to feel that it is within their power to seek help and they know the path to seek help. Encouraging PBC may include being specific about how to seek help, such as who to contact (e.g., providing specific phone numbers or contact information), location (e.g., where services are located and who to go to for services), and eligibility (e.g., insurances accepted, self-pay, cost of services; Bohon et al., 2016). Greater accessibility to this information may assist those who are wanting to seek help but feel it is not within their power to identify a path to services.

Findings also support that improving social approval or social norms related to help-seeking would be beneficial. Subjective norms was the strongest predictor of intent to seek help. This may suggest that if rural and non-rural communities can engage in normative campaigns or increase community support and buy-in related to help-seeking, intent to seek help could possibly increase (Bohon et al., 2016; Tomczyk et al., 2020).

Further, results shed further light on how psychological treatment is provided for depression, regardless of geographical location, may matter. Despite not finding differences between rural and non-rural groups, past research suggests that being knowledgeable of community needs or culture is important to providing helpful interventions (Bischoff et al., 2014;

Chandra et al., 2020; Cohn & Tsai, 2020; Mohatt et al., 2005; Riding-Malon & Werth, 2014). Thus, it may be helpful, specifically in the context of sexual violence, for treatment providers to aim to understand the values of the community they are serving when providing treatment (Bischoff et al., 2014; Chandra et al., 2020). It may also be beneficial to understand where help is sought in a community and be aware of resources that are readily available, as some communities do not have access to mental health professionals. For example, if community members are more likely to seek help from clergy, social workers, or lawyers, it would be helpful to improve attitudes, perceived approval, and ease of seeking from these resources. In order to best address symptoms of depression, mental health providers may benefit from being sensitive to the traditions, culture toward mental health, and barriers to help-seeking of the community they are serving (Bischoff et al., 2014). This may include collaborating with other providers, understanding available resources, and understanding the model of care within the community (Bischoff et al., 2014).

Limitations and Future Directions

This study was not without limitations. A limited sample size may have contributed to a lack of group differences observed in the structural model. Future research should attempt to recruit additional participants, specifically participants who identify as residing in rural locations as this was a community that was difficult to recruit. Future research should not only attempt to recruit additional rural participants, but also focus on acquiring equivalent participants in each group to increase the reliability, validity, and generalizability of results. Rural communities and those residing in rural communities make up approximately 25% - 30% of the U.S. population; however, there is often a lack of research dedicated to understanding rural communities, specifically in the area of sexual violence (Annan, 2006). Of note, although groups were not

equivalent in size, groups were a representative sample of the U.S. rural population. To best serve rural communities and address disparities in help-seeking for sexual violence, future research should continue to explore the intersection of social location, sexual violence, and help-seeking.

This sample was also cross-sectional, which limits the ability of this study to determine causality. Future research would benefit from two measurement time points such as pre- and post- intervention to further determine the effects of seeking help on outcome measures. Further, the sample was generally homogenous across a number of variables. The sample was largely White (79.2%) women (80.3%), and this homogeneity of the sample may impact generalizability of results. Further, it is important to note that rural communities are also heterogeneous and future research may benefit from further exploring differences in rural communities (e.g., rural Appalachia vs. rural Southern communities). Sexual violence is experienced by people of all identities and future research would benefit from recruiting more diverse samples to further understand how help-seeking may be experienced in these groups.

This study also used a one-item help-seeking scale. This was used to address poor psychometric properties of the Actual Help-Seeking Scale. Using one-item to measure help-seeking should be avoided in future research. Instead, help-seeking measures with more robust psychometric properties should be identified to avoid this concern in future research. This will assist with reliability and validity of results as well as generalizability of future research.

Poor psychometric proprieties of initial outcome measures were also a limitation. Although outcome variable measures demonstrated good reliability, the scales identified to measure outcomes variables of interest were likely too complex (i.e., too many constructs). This likely contributed to model complexity, which is also a limitation of this study and should be

addressed in future research. Model complexity likely impacted model fit, and future research may benefit from measuring the constructs of interest with more parsimony.

Lastly, future research should continue to address the lack of clarity in potential differences of sexual violence help-seeking for rural and non-rural communities. The field may benefit from a meta-analysis that can summarize findings and create a clearer understanding of rural and non-rural findings and literature related to sexual violence. Also, as discussed previously, future research should address how to more clearly and empirically define and measure rural and non-rural so that future research can be more psychometrically sound and consistent.

Conclusion

The present study further explored the utility of the TPB in predicting mental health help-seeking for sexual violence among rural and non-rural populations. While results supported the TPB model in predicting mental health help-seeking for sexual violence, no support was found for the hypothesized rural and non-rural differences. In regard to the TPB, results highlighted the importance of attitudes and subjective norms in predicting intentions and help-seeking behavior in rural and non-rural groups for survivors of sexual violence. Results also suggested that PBC may be less predictive in this sample or with the volitional behavior of help-seeking. Findings serve as a call to practitioners to strive to better understand what motivates survivors of sexual violence to seek help and to emphasize positive attitudes and social approval, as these may increase intent to seek help within this population. Findings also serve as a call to researchers to continue to incorporate geographic location in research and address the complexity in defining rural and non-rural so the needs of these communities can be served. Continuing to understand why people seek help, how they choose to seek help, and if there are differences in these

decisions based on location will assist both researchers and providers in better serving those who have experienced sexual violence.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology, 32*(4), 665-683. https://doi.org/10.1111/j.1559-1816.2002.tb00236.x

Ajzen, I. (2006). Constructing a Theory of Planned Behaviour Questionnaire: Conceptual and Methodological Consideration. http://www.people.umass.edu/aizen/pdf/tpb.measurement.pdf

Ajzen, I., & Fishbein, M. (2005). *The Influence of Attitudes on Behavior.* In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (p. 173–221). Lawrence Erlbaum Associates Publishers.

Ajzen, I., & Manstead, A. S. R. (2007). *Changing health-related behaviours: An approach based on the theory of planned behaviour.* In M. Hewstone, H. A. W. Schut, J. B. F. De Wit, K. Van Den Bos, & M. S. Stroebe (Eds.), *The scope of social psychology: Theory and applications* (p. 43–63). Psychology Press.

American Psychological Association Practice Organization (2011). *Psychologists promote health and well-being throughout our nation.* Retrieved from https://www.apa.org/health/promote-well-being.aspx

Amstadter, A. B., McCauley, J. L., Ruggiero, K. J., Resnick, H. S., & Kilpatrick, D. G. (2008). Service utilization and help seeking in a national sample of female rape victims. *Psychiatric Services, 59*(12), 1450–1457. https://doi.org/10.1176/appi.ps.59.12.1450

Anderson, G. D., & Overby, R. (2020). Barriers in seeking support: Perspectives of service providers who are survivors of sexual violence. *Journal of Community Psychology, 48*(5), 1564–1582. https://doi.org/10.1002/jcop.22348

Anderson, K. M., Renner, L. M., & Bloom, T. S. (2014). Rural women's strategic responses to intimate partner violence. *Health Care for Women International, 35*(4), 423-441. https://doi.org/10.1080/07399332.2013.815757

Annan, S. L. (2006). Sexual violence in rural areas: A review of the literature. *Family & Community Health: The Journal of Health Promotion & Maintenance, 29*(3), 164-168. https://doi.org/10.1097/00003727-200607000-00003

Arbuckle, J. L. (2017). Amos (Version 25.0) [Computer Program]. Chicago: SPSS

Armitage, C. J., & Conner, M. (2000). Social cognition models and health behaviour: A structured review. Psychology & Health, *15*(2), 173–189. https://doi.org/10.1080/08870440008400299

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *The British Journal of Social Psychology, 40*(4), 471–499. https://doi.org/10.1348/014466601164939

Åstrøm, A.N., Lie, S.A. & Gülcan, F. (2018). Applying the theory of planned behavior to self-report dental attendance in Norwegian adults through structural equation modelling approach. *BMC Oral Health*, *18*(1), 1–10. https://doi.org/10.1186/s12903-018-0558-7

Basile K.C., Smith S.G., Breiding M.J., Black M.C., & Mahendra R.R. (2014). Sexual violence surveillance: Uniform definitions and recommended data elements, version 2.0. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Bischoff, R. J., Reisbig, A. M., Springer, P. R., Schultz, S., Robinson, W. D., & Olson, M. (2014). Succeeding in rural mental health practice: Being sensitive to culture by fitting in and collaborating. *Contemporary Family Therapy, 36*, 1–16. https://doi.org/10.1007/s10591-013-9287-x

Boerema, A. M., Kleiboer, A., Beekmna, A. T. F., van Zoonen, K., Dijkshoorn, H., & Cuijpers, P. (2016). Determinants of help-seeking behavior in depression: A cross-sectional study. *BMC Psychiatry, 16*(78), 1–9. https://doi.org/10.1186/s12888-016-0790-0

Bohon, L. M., Cotter, K. A., Kravitz, R. L., Cello Jr., P. C., & Fernandez y Garcia, E. (2016). The theory of planned behavior as it predicts potential intention to seek mental health services for depression among college students. *Journal of American College Health, 64*(8), 593–603. https://doi.org/10.1080/07448481.2016.1207646

Breiding, M. J., Ziembroski, J. S., & Black, M. C. (2009). Prevalence of rural intimate partner violence in 16 US states, 2005. *The Journal of Rural Health, 25*(3), 240–246. https://doi.org/10.1111/j.1748-0361.2009.00225.x

Brooks, J. M., Huck, G., Iwanaga, K., Chan, F., Wu, J.-R., Finnicum, C. A., Brinck, E. A., & Estala-Gutierrez, V. Y. (2018). Towards an integration of the health promotion models of

self-determination theory and theory of planned behavior among people with chronic pain. *Rehabilitation Psychology, 63*(4), 553–562. https://doi.org/10.1037/rep0000245

Brooks, J. M., Iwanaga, K., Chiu, C., Cotton, B. P., Deiches, J., Morrison, B., Moser, E., & Chan, F. (2016). Relationships between self-determination theory and theory of planned behavior applied to physical activity and exercise behavior in chronic pain. *Psychology, Health, & Medicine, 22*(7), 814–822. https://doi.org/10.1080/13548506.2017.1282161

Brown, T. A. (2006). *Confirmatory factor analysis for applied research.* The Guilford Press.

Byrne, B. M. (2016). *Structural Equation modeling with AMOS: Basic concepts, applications, and programming.* Routledge.

Campbell, R. (2008). The psychological impact of rape victims' experiences with the legal, medical and mental health systems. *American Psychologist, 63*(8), 702–717. Retrieved from https://russellstrand.com/wp-content/uploads/2017/12/Campbell-2008-Psychological-Impact-of-Rape-Victims-Experiences-With-the-Legal-Medical-and-Mental-Health-Systems.pdf

Centers for Disease Control and Prevention. (2016). *Definition of sexual health.* Retrieved from http://www.cdc.gov/sexualhealth.

Chandra, P. S., Ross, D., & Agarwal, P. P. (2020). *Mental Health of Rural Women.* Springer.

Chen, J., Romero, G., & Karver, M. S. (2015). The relationship of perceived campus culture to mental health help-seeking intentions. *Journal of Counseling Psychology, 63*(6), 677–684. https://doi.org/10.1037/cou0000095

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*(2), 233–255. https://doi.org/10.1207/S15328007SEM0902_5

Codd, R. T., III., & Cohen, B. N. (2003). Predicting college student intention to seek help for alcohol abuse. *Journal of Social & Clinical Psychology*, *22*, 168–191. https://doi.org/10.1521/jscp.22.2.168.22877

Cohn, T. J., & Tsai, P.-C. (2020). *Providing psychotherapy in rural areas.* In J. Zimmerman, J. E. Barnett, & L. F. Campbell (Eds.), *Bringing psychotherapy to the underserved: Challenges and strategies* (p. 208–228). Oxford University Press.

Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist, 59,* 614–625. https://doi.org/10.1037/0003-066x.59.7.614

Deane, F. P., Skogstad, P., & Williams, M. (1999). Impact of attitudes, ethnicity and quality of prior therapy on New Zealand male prisoners' intentions to seek professional psychological help. *International Journal for the Advancement of Counselling, 21*(1), 55-67. https://doi.org/1005346703753

Edwards, K. M. (2015). Intimate partner violence and the rural urban suburban divide: Myth or reality? A critical review of the literature. *Trauma, Violence, & Abuse, 16*(3), 359-373. https://doi.org/10.1177/1524838014557289

Eubanks Fleming, C. J., Lynch, K. A., Hakas, M. B., & Belanger, E. (2018). Resource use after unwanted sexual experiences in undergraduates: A comprehensive evaluation of factors related to the decision to seek help. *Journal of Interpersonal Violence, 00*(0), 1–20. https://doi.org/10.1177/0886260518780408

Federal Bureau Investigation. (2017). *Crime in the United States*. Retrieved from https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/tables/table-16

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data Analysis,* (7th ed.). Prentice Hall.

Hess, T. R., & Tracey, T. J. G. (2013). Psychological help-seeking intention among college students across three problem areas. *Journal of Counseling & Development, 91,* 321–330. https://doi.org/10.1002/j.1556-6676.2013.00100.x

Higgins, J. A., Mullinax, M., Trussel, J., Davidson Sr., K., & Moore, N. B. (2011). Sexual satisfaction and sexual health among university students in the United States. *American Journal of Public Health, 101*(9), 1643–1654. https://doi.org/10.2105/AJPH.2011.300154

Hu, L.-t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1–55. https://doi.org/10.1080/10705519909540118

IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, NY: IBM Corp

Keyes, C. L. M., Wissing, M., Potgieter, J. P., Temane, M., Kruger, A., & van Rooy, S. (2008). Evaluation of the Mental Health Continuum Short Form (MHC-SF) in Setswana speaking South Africans. *Clinical Psychology and Psychotherapy, 15,* 181–192.

Kleinstauber, M. (2017). Factors associated with sexual health and well-being in older adulthood. *Psychiatry, Medicine, and the Behavioral Sciences, 30*(5), 358–368. https://doi.org/10.1097/YCO.0000000000000354.

Lareyre, O., Gourlan, M., Stoebner-Delbarre, A., & Cousson-Gelie, F. (2021). Characteristics and impact of theory of planned behavior interventions on smoking behavior: A systematic review of the literature. *Preventive Medicine, 143,* https://doi.org/10.1016/j.ypmed.2020.106327

Lee, L. T., Bowen, P. G., Mosley, M. K., & Turner, C. C. (2017). Theory of planned behavior: Social support and diabetes self-management. *The Journal for Nurse Practitioners, 13*(4), 265–270. https://doi.org/10.1016/j.nurpra.2016.07.013

Logan, T. K., Evans, L., Stevenson, E., & Jordan, C. E. (2005). Barriers to services for rural and urban survivors of rape. *Journal of Interpersonal Violence, 20*(5), 591–616. https://doi.org/10.1177/0886260504272899

Lovibond, S. H. & Lovibond, P. F. (1993). *Manual for the Depression Anxiety Stress Scales (DASS).* Psychology Foundation Monograph. (Available from The Psychology Foundation, Room 1005 Mathews Building, University of New South Wales, NSW 2052, Australia).

Lovibond, P. F., & Lovibond S. H. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the Beck depression and anxiety inventories. *Behavior Research, 33*(3), 335–343. https://psycnet.apa.org/doi/10.1016/0005-7967(94)00075-U

Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin, 18*(1), 3-–9. https://doi.org/10.1177%2F0146167292181001

Matheson, F. I., Daoud, N., Hamilton-Wright, S., Borenstein, H., Pedersen, C., & O'Campo, P. (2015). Where did she go? The transformation of self-esteem, self-identity, and mental well-being among women who have experienced intimate partner violence. *Women's Health Issues, 25*(5), 561–569. https://doi.org/10.1016/j.whi.2015.04.006

McCall-Hosenfeld, J. S., Weisman, C. S., Perry, A. N., Hillemeier, M. M., & Chuang, C. H. (2014). "I just keep my antennae out": How rural primary care physicians respond to intimate partner violence. *Journal of Interpersonal Violence, 29*(14), 2670-–2694. https://doi.org/10.1177%2F0886260513517299

Mohatt, D. F., Bradley, M. M., & Adams, S. J. (2005). Rural Mental Health: Challenges and Opportunities Caring for the Country. In N. A. Cummings, W. T. O'Donohue, & M. A. Cucciare (Eds.), Universal healthcare: Readings for mental health professionals (p. 127–150). Context Press/New Harbinger Publications.

Moradi, B., & Grzanka, P. R. (2017). Using intersectionality responsibly: Toward critical epistemology, structural analysis, and social justice activism. *Journal of Counseling Psychology, 64*(5), 500–513. https://doi.org/10.1037/cou0000203

Pederson, E. L., & Vogel, D. L. (2007). Male gender role conflict and willingness to seek counseling: Testing a mediation model of college-aged men. *Journal of Counseling Psychology, 54,* 373–384. https://doi.org/10.1037/0022-0167.54.4.373

Peek-Asa, C., Wallis, A., Harland, K., Beyer, K., Dickey, P., & Saftlas, A. (2011). Rural disparity in domestic violence prevalence and access to resources. *Journal of Women's Health, 20*(11), 1743-1749. https://doi.org/10.1089/jwh.2011.2891

Rennison, C., Dragiewicz, M., & DeKeseredy, W. (2012). Urban, suburban, and rural variations in separation/divorce rape/sexual assault: Results from the national crime victimization survey. *Feminist Criminology, 7*(4), 282–297. https://doi.org/10.1177%2F1557085111435660

Rennison, C., Dragiewicz, M., & DeKeseredy, W. (2013). Context matters: Violence against women and reporting to police in rural, suburban and urban areas. *American Journal of Criminal Justice, 38*(1), 141-159. https://doi.org/10.1007/s12103-012-9164-4

Rickwood, D., Deane, F. P., Wilson, C. J., & Ciarrochi, J. V. (2005). Young people's help-seeking for mental health problems. *Australian e-Journal for the Advancement of Mental Health, 4*(3), 1–34. Retrieved from http://ro.uow.edu.au/hbspapers/2106

Riddell, T., Ford-Gilboe, M., & Leipert, B. (2009). Strategies used by rural women to stop, avoid, or escape from intimate partner violence. *Health Care for Women International, 30*(1-2), 134-159. https://doi.org/10.1080/07399330802523774

Riding-Malon, R., & Werth, J. L. Jr. (2014). Psychological practice in rural settings: At the cutting edge. *Professional Psychology: Research and Practice, 45*(2), 85–91. https:/doi.org/10.1037/a0036172

Roberto, K. A., Brossoie, N., McPherson, M. C., Pulsifer, M. B., & Brown, P. N. (2013). Violence against rural older women: Promoting community awareness and action. *Australasian Journal on Ageing, 32*(1), 2-7. https://doi.org/10.1111/j.1741-6612.2012.00649.x

Schwab-Reese, L., & Renner, L. (2017). Attitudinal acceptance of and experiences with intimate partner violence among rural adults. *Journal of Family Violence, 32*(1), 115-123. https://doi.org/10.1007/s10896-016-9895-y

Siuki, H. A., Peyman, N., Vahedian-Shahroodi, M., Gholian-Aval, M., & Tehrani, H. (2018). Health education intervention on HIV/AIDS prevention behaviors among health volunteers in healthcare centers: Applying the theory of planned behavior. *Journal of Social Service Research, 45*(4), 582–588. https://doi.org/10.1080/01488376.2018.1481177

Skogstad, P., Deane, F. P., & Spicer, J. (2006). Social-cognitive determinants of help-seeking for mental health problems among prison inmates. *Criminal Behaviour and Mental Health, 16*(1), 43-59. https://doi.org/10.1002/cbm.54

Smith, J. P., Tran, G. Q.., & Thompson, R. D. (2008). Can the theory of planned behavior help explain men's psychological help-seeking? Evidence for mediation effect and clinical implications. *Psychology of Men & Masculinity, 9*(3), 179–192. https://doi.apa.org/doi/10.1037/a0012158

Strong, C., Lin, C. Y., Jalilolghadr, S., Updegraff, J. A., Brostrom, A., & Pakpour, A. H. Sleep hygiene behaviors in Iranian adolescents: An application of the theory of planned behavior. *Journal of Sleep Research, 27*(1), 23–31. https://doi.org/10.1111/jsr.12566

Tabachnick, B. G., & Fidel, L. S. (2013). *Using Multivariate Statistics* (6th ed.). Pearson.

Tomczyk, S., Schomerus, G., Stolzenburg, S., Muehlan, H., & Schmidt, S. (2020). Ready, willing and able? An investigation of the theory of planned behaviour in help-seeking for

a community sample with current untreated depressive symptoms. *Prevention Science, 21,* 749–760. https://doi.org/10.1007/s11121-020-01099-2

Ullman, S. E. (2007). Mental health services seeking in sexual assault victims. *Women & Therapy, 30*(1-2), 61–84. https://doi.org/10.1300/J015v30n01_04

United States Department of Agriculture. (2019a). *Rural-urban area commuting codes.* Retrieved from https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/

United States Department of Agriculture. (2019b). *What is rural?* Retrieved from https://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural.aspx

United States Department of Justice, Bureau of Justice Statistics. (2008). *Intimate partner violence in the United States*. Retrieved from http://www.ojp.usdoj.gov/bjs/pub/pdf/ipvus.pdf.

Vogel, D. L., Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology, 53*(3), 325–337. https://doi.org/10.1037/0022-0167.53.3.325

Vogel, D. L., Wade, N. G., Hackler, A. H. (2007). Perceived public stigma and the willingness to seek counseling: The mediating roles of self-stigma and attitudes toward counseling. *Journal of Counseling Psychology, 54*(1), 40–50. https://doi.org/10.1037/0022-0167.54.1.40

Weston, R., & Gore, P. A. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist, 34*(5), 719-751. https://doi.org/10.1177/0011000006286345

Wilson, C. J., Deane, F. P., Ciarrochi, J., & Rickwood, D. (2005). Measuring help-seeking intentions: Properties of the general help-seeking questionnaire. *Canadian Journal of Counselling, 39*(1), 15–28.

Wrigley, S., Jackson, H., Judd, R., & Komiti, A. (2005). Role of stigma and attitudes toward help-seeking from a general practitioner for mental health problems in a rural town. *Australian and New Zealand Journal of Psychiatry, 39,* 514–512. Retrieved from https://www.researchgate.net/publication/779