

Mental Health Treatment Seeking in a Rural Community

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ABSTRACT

This study examined variables related to rural individuals' willingness to seek mental health services, with particular focus on prior knowledge of the provider. One hundred and fifty three participants were recruited from a rural primary care clinic provided demographic information, mental health treatment history and willingness to seek treatment, and the completed the Brief Symptom Inventory (BSI). Individuals who were married, more educated, and Caucasian were more willing to seek mental health treatment, and all participants were more likely to seek treatment for more severe problems. Longer-term residents were more likely to use a hometown provider. Contrary to hypotheses, individuals that are more rural did not prefer providers of whom they had prior knowledge. Definitions of rurality, limitations of the available data, and directions for future research are discussed.

INTRODUCTION

Mental health practice in rural settings offers both challenges and opportunities not found in urban settings. For example, the small, close-knit community that makes rural practice attractive also means little anonymity for clients and therapists. The impact of the therapist's position in the community on mental health treatment seeking is not well understood. To provide accessible and effective mental health services to rural individuals, it is important to identify their perceptions of mental health treatment so that services can be tailored as needed.

According to the U.S. Census Bureau (2000), approximately 21% of the nation's population resides in rural communities, which they defined as areas with a population density of less than 500 people per square mile. Prairie states account for much of this rurality. In the state of Nebraska, for example, 561 out of 745 communities are classified as rural (Rand McNally, 1995), and many of these communities further qualify as "frontier areas": regions in which there are fewer than seven people per square mile. Frontier areas, including those in Nebraska, are presumed to be the most isolated and underserved among rural communities (Zelarney & Ciarlo, 2000).

In contrast to the idealized view of simple, relaxed country life, rural residents appear to need mental health services at approximately the same rate as urban residents (Roberts, Battaglia, & Epstein, 1999). Due to out-migration of young people, older Americans are disproportionately represented in rural areas. Thus, in addition to the economic and seasonal crises, declines in federal assistance, and increased poverty (Joliffe, 2002), rural individuals must deal with the usual health and economic difficulties that often accompany aging. Given these hardships, it is not surprising that overall rates of psychological disorders are similar to those among urban populations (Roberst et al., 1999). Despite equivalent need for mental health services, researchers and policymakers

have traditionally neglected rural areas and have concentrated funds and services within urban centers (Muehrer, 1997).

Mental health services are not adequately available in many rural areas for a variety of reasons (Judd et al., 2002). Certain characteristics of rural communities such as geographic isolation, wide population dispersment, and lack of public transportation make service provision difficult from a practical standpoint, even when funding is available (Roberts, 1999). Other characteristics, such as social and professional isolation, lack of cultural opportunities, and ethical dilemmas that are unique to rural settings have also been proposed as factors related to rural professionals' dissatisfaction (Hargrove, 1986; Roberts et al., 1999; Sullivan, Hasler & Otis, 1993). However, even if adequate mental health services were available, it is unclear how other barriers to treatment, such as attitudes towards mental health care among rural individuals, might influence their willingness to seek treatment.

To date, studies of rural attitudes toward mental health services have produced conflicting results. Some research suggests that rural individuals are mistrustful (Coward et al., 1983), poorly informed about psychological matters, and unlikely to seek mental health services (Fox et al., 1999). However, other research indicates that rural individuals are relatively well informed about mental health, aware of available services, and have positive attitudes towards those services and their utilization (Flaskerud & Kviz, 1984). This variance clearly highlights the need to better understand rural attitudes toward mental health services.

Several studies have examined the factors contributing to the utilization of mental health services among rural individuals. Greater willingness to seek treatment has been found among individuals who are younger, female, have more positive attitudes toward help-seeking (Smith, Peck, & McGovern, 2004), have completed more years of formal education, are less rural, and have lower levels of psychiatric symptoms (Murray & Keller, 1991). Interestingly, Maiden and Peterson (2002) found an age-related decrease in willingness to seek services, despite the fact that the need for mental health services tends to be higher among older individuals.

Importantly, most studies operationalize rurality using categorical criteria such as population size and density, economic activity, and adjacency to a metropolitan area (Hewitt, 1989). Even within categorical classifications, however, little consensus is evident (Murray & Keller, 1991). For example, a review by Jordan and Hargrove (1987) identified no fewer than eight independent definitions of rurality, with varying criteria such as population size per county, distance from a city, or inclusion in a state budget. Such categorical definitions, while often useful and necessary for research purposes, may suggest a homogeneity that does not actually exist across all areas labeled "rural" (Jordan and Hargrove, 1987). Provorse (1996) argues that by relying on traditional categorical definitions, we may be "classifying rural and urban *places*, but not necessarily rural and urban *people*" (Provorse, 1996, p.6). To address this problem, recent research has sought to identify a "rural mindset" by including variables such as community of origin, current farm influence, family heritage, and personal self-definitions. Although these additional variables appear useful in predicting responses on traditional rural-urban measures (Provorse, 1996), research has not yet investigated how non-categorical measures of rurality relate to perceptions of mental health care. The present study seeks to fill this

gap by including alternate definitions of rurality such as residential history and community of origin, and personal self-definition, and examining how these variables relate to willingness to seek mental health treatment services.

The current study explores mental health treatment seeking among rural populations. Rather than examining barriers to treatment-seeking, the focus of this study is on the current realities of rural therapy. Among urban populations, attitudinal factors (beliefs about mental illness, confidence in treatment, etc.) appear to be more important than “structural” factors (distance, cost, etc.) in influencing willingness to seek treatment (Wells, Robins, Busnell, Jaroz, & Oakley-Browne, 1994). Among rural populations, the influence of attitudinal factors on willingness to seek treatment is unknown. Furthermore, it is unclear whether multiple relationships and anonymity facilitate or hinder willingness to seek mental health treatment. There is little research in this area focusing specifically on rural populations, and, as noted above, findings from these studies are equivocal. The present study addresses these gaps by examining the influence of rural individuals’ attitudes towards mental health care and the factors that influence their willingness to seek services.

Greater knowledge of a therapist (i.e. less therapist anonymity) provides clients with important information about the therapist’s values, reputation, and commitment to the community that may increase their confidence in the provider. Thus, it is expected that knowledge of the provider will be positively related to willingness to seek mental health services. It is further hypothesized that greater rurality will be related to a preference for therapists of whom the individual has prior knowledge, after controlling for demographic variables such as age, gender, educational level, and psychiatric symptom level. Results of this study are expected to replicate previous findings regarding the influence of demographic variables on willingness to seek treatment. Specifically, individuals who are older, less educated, more rural, and have fewer psychiatric symptoms are expected to report less willingness to seek treatment. It is also assumed that, independent of the level of rurality, individuals will report a greater likelihood to seek treatment for more severe problems.

METHOD

Participants

Participants were 153 individuals (96 women and 56 men, mean age = 52.5, SD = 19.5) visiting a rural primary care clinic. The clinic is located in the town of Gordon, Nebraska, a small community of approximately 2000 people, located in a large, but sparsely populated area of the state. This clinic provides services to individuals residing within approximately 100 square miles.

Eighteen individuals were approached at the clinic and chose not to participate; 8 stated that they were simply not interested in participating, 4 indicated that they would not be at the clinic long enough to complete the project, 3 had vision-related problems that prevented their participation, 1 indicated that they could not read, and 1 had a physical problem which prevented them from being able to write.

The years of formal education completed by participants ranged considerably from a minimum of 3 to a maximum of 21 ($M = 13.2$ $SD = 2.6$). Table 1 describes other participant characteristics. Although the majority of the participants were European-American ($n = 106$, 69.3%), a substantial proportion were ethnic minority participants ($n = 42$, 27.5%). Native Americans were the most represented group among those who identified themselves as an ethnic minority, ($n = 35$, 83%). Twenty-seven (17.6%) participants were classified as “never married” (i.e. single, living with someone) and 125 (81.7%) were classified as “ever married” (i.e. married, separated, divorced, widowed). As detailed in Table 1, the annual income of most participants fell between \$10,000 - \$20,000.

Participants described the reason for their visit to the primary care clinic on that particular day. As noted in Table 2, these reasons included general physicals or immunizations (22.2%), treatment for an acute illness (5.9%), care for an injury of some type (5.2%), scheduled obstetrics/gynecology examination (7.2%), monitoring for a chronic illness or having their medication checked (5.9%), lab work or symptom checks (19.6%), and accompanying an ill or injured family member (26.8%). Although this is not a random sample, it does represent a broad range of individuals as nearly everyone uses the same health services in that area.

Procedure

The first author approached participants in the waiting room of the primary care clinic as they waited for their appointments. She explained that the purpose of the study was to gather information about rural clients’ mental health needs and attitudes toward mental health care. She explained the information obtained is kept strictly confidential and that participation was voluntary and not connection with their medical care. Participants received five dollars in return for their participation. Following informed consent, participants completed several questionnaires, often within the time spent waiting for their appointment, or immediately afterwards.

Measures

Demographic Questionnaire

A 16-item self-report questionnaire assessed basic demographic information including age, gender, ethnicity, marital status, occupation, and level of education. Several questions were designed to assess the rurality, such as the population of the participant’s current community of residence, the length of time they have resided in that area, the name and population of their birthplace, and the name and population of the location in which they have spent the majority of their life. Participants also rated themselves on a rural/urban continuum (e.g. “On the following scale, where 1 represents the most ‘rural’ (country type of person), and 5 represents the most ‘urban’ (city type of person), where would you place yourself?”). Research suggests that multiple measures are needed to adequately measure rurality (Provorse, 1996).

Mental Health Questionnaire

The second half of the demographic questionnaire included 17 mental health questions. Participants provided information about the reason for their visit to the clinic, as well as their general health status in order to assess the extent to which medical services were being sought for mental health concerns. Specific mental health questions such as whether the individual had ever received mental health treatment in the past and how willing they would be to seek such help if it were needed in the future were designed to elicit information about attitudes towards mental health treatment and willingness to seek services. Similar questions asked participants to estimate how willing a “typical person from their community” would be to seek mental health services. These “typical person” questions provided a less threatening way to addressing a potentially sensitive topic, and also provided additional information about whether participants perceived their views as similar to other community members.

Regardless of past treatment history, participants rated their willingness to seek treatment in the future, if they believed that they had a mental or emotional problem. Participants read vignettes describing specific situations corresponding to marital/family problems, depression, and a psychotic disorder. Participants rated how likely they would be to seek help if they or their family experienced the problems described in the vignettes. Participants indicated the type of provider that they would be most likely to seek help from, if needed (e.g. a pastor/priest, psychologist, medical doctor), and their willingness to seek help from individuals of whom they have varying degrees of acquaintance (ranging from complete stranger to someone they work with).

Individuals reporting that they have received services in the past (N=51) were instructed to answer additional questions about the provider that they saw most recently. These participants rated their familiarity with the service provider, including whether the provider was from the same community.

Brief Symptom Inventory ***(BSI: Derogatis & Melisaratos, 1983)***

The BSI is a 53 item, self-report measure of psychological symptoms. Participants rated their level of distress for symptoms experienced during the past week. The BSI includes three global indices: the Global Severity Index (GSI), the Positive Symptom Total (PST), and the Positive Symptom Distress Index (PSDI). Adequate internal consistency ($\alpha = .71$ to $.85$) and test-retest reliability ($\alpha = .68$ to $.91$) have been established for the BSI (Derogatis & Melisaratos, 1983). The PST was used to establish the degree to which each individual was distressed by psychiatric symptoms. The BSI was included to describe the level of psychological symptoms in the sample.

RESULTS

Preliminary Analyses

Tables 1 and 2 show the means, standard deviations, and ranges for demographic variables with percentages calculated for all dichotomous.

Table 1
Subject Characteristics – Means and Standard Deviations

Characteristics	Minimum	Maximum	<i>M</i>	<i>SD</i>
Age	20	91	52.5	19.5
Education	3	21	13.2	2.6

Table 2
Participant Characteristics – Frequencies and Percentages

	Overall <i>N (%)</i>	Male <i>N (%)</i>	Female <i>N (%)</i>
Gender	153 ^a	56	96
Ethnicity			
European-American	106 (69.3)	37 (66.1)	69 (71.9)
Native American	35 (22.9)	15 (26.8)	20 (20.8)
Other	7 (4.6)	2 (3.6)	4 (4.2)
Missing	5 (3.3)	2 (3.6)	3 (3.1)
Marital Status			
Single	21 (13.7)	11 (19.6)	10 (10.4)
Living with Someone	6 (3.9)	2 (3.6)	4 (4.2)
Married	97 (63.4)	38 (67.9)	59 (61.5)
Separated	3 (2)	0 (0)	3 (3.1)
Divorced	10 (6.5)	4 (7.1)	6 (6.3)
Widowed	15 (9.8)	1 (1.8)	14 (14.6)
Missing	1 (.7)	0 (0)	0
Salary			
0 – 10,000	33 (21.6)	12 (21.4)	21 (21.9)
10,000 – 20,000	42 (27.5)	13 (23.2)	29 (30.2)
20,000 – 30,000	33 (21.6)	13 (23.2)	20 (20.8)
30,000 – 40,000	22 (14.4)	8 (14.3)	14 (14.6)
40,000 – 50,000	4 (2.6)	2 (3.6)	2 (2.1)
Over 50,000	13 (8.5)	7 (12.5)	6 (6.3)
Missing	6 (3.9)	1 (1.8)	4 (4.2)

^aOne participant did not indicate their gender.

The PST of the BSI is only one dimension of this measure used for clinical decision making and case classification and calculates the number of symptoms endorsed in a positive direction. Because cut-off scores are different for men and women, the sample was separated by gender and PST scores in the BSI. Since this index is not used in isolation for clinical decision making, an arbitrary cut-off was set for the purposes of this research. The scoring manual indicates that a T-score of 63 on this measure places the individual in the 84th percentile of the standardization sample. Within this sample, 16 men (43.2%) and 16 women (23 %) received a T-score of 63 or higher. Ten men (27%) and 4 women (6 %) received a T-score of 70 or higher, placing them at or above the 98th percentile within the standardization sample.

Factor Analysis of Rural Variables

To better understand the various measures of rurality, a principal component analysis using Varimax rotation with Kaiser normalization was conducted. The following variables were included in this analysis: population of current hometown, living situation (i.e. farm or town residence), length of time in the area, population of birthplace, population of town where they have spent the most time, and the individual's

Table 3
Factor Loadings of Rural Variables

	Component 1	Component 2
Item	Current Situation	History
Population of hometown	.787	-.006
Living Situation	.519	.002
Length of time in place	.143	-.796
Self-Definition	.492	.252
Population of birthplace	.323	.720
Population of place lived most	.616	.506

self-definition as urban or rural. Five variables loaded on Component 1: population of hometown, living situation, self-definition, population of birthplace and population of place you have lived most of your life. Three variables loaded on Component 2: length of time in place, population of birthplace, and population of place lived most. Table 3 shows the factor loadings for these variables. Almost all of the rural variables loaded on Component 1, with 2 variables (population of birthplace and population of place lived most) loading on both Components.

Correlational Analysis

Table 4 shows the correlations among willingness to seek treatment and a number of participant variables, including age, gender, years of formal education completed, ethnicity, marital status, rurality factor scores, and the PST. Separate rurality variables were also entered in the analyses, including population of birthplace, population of hometown, living situation (town vs. country), length of time residing in place, and self-definition (rural vs. urban).

Significant correlations were found between willingness to seek treatment and education ($r(141) = .29, p < .01$), ethnicity ($r(140) = -.31, p < .01$), and marital status ($r(146) = .18, p < .05$). Individuals who had received more formal education who identified as European-American, and who were or had been married were significantly more willing to seek mental health treatment. Due to the large number of correlations examined, a cut-off of $p < .01$ was used to avoid Type I errors.

Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Willingness to seek tx	--												
2. Gender	.066	--											
3. Age	.055	-.093	--										
4. Education	.287**	.104	-.014	--									
5. Salary	.108	-.101	.074	.333**	--								
6. Ethnicity	-.309**	-.080	-.156	-.268**	-.278**	--							
7. Marital Status	.178*	.109	.274**	.110	.189*	-.269**	--						
8. Population of hometown	.013	-.104	-.078	-.045	.158	.023	.020	--					
9. Living situation	-.043	-.077	-.024	-.080	-.098	.114	-.052	.249**	--				
10. Length of residence	-.050	-.048	.603**	-.089	.025	-.043	.131	-.055	-.179*	--			
11. Self-definition	-.161	-.205	-.046	-.023	-.069	.275**	-.123	.151	.185*	-.090	--		
12. Positive Symptom Total	-.017	-.073	-.217*	.077	-.132	.028	-.053	.067	.150	-.115	-.009	--	
13. Factor Score 1	.111	-.228**	.140	-.068	.048	.077	.017	.787**	.519**	.143	.492**	.028	--
14. Factor Score 2	.142	.068	-.519**	.110	-.018	-.106	.003	-.062	.017	-.796**	.252**	.076	.000

Intercorrelations Among Willingness to Seek Treatment and Subject Variables

* $p = .05$ ** $p = .01$

Level of Rurality

The hypothesis that greater rurality will be related to a preference for therapists of whom the individual has greater prior knowledge, independent of the contribution of demographic factors was not supported. Planned multiple regression analyses examining which variables predicted preference for greater therapist knowledge were not conducted because none of these variables were significantly correlated with therapist preference (see Table 4).

Severity of Problems

Repeated measures analysis of variance procedure (ANOVA) was used to examine the hypothesis that across levels of rurality, individuals will be more likely to seek treatment for more severe problems. Willingness to seek treatment was entered as the dependent variable (DV) and type of problem (marital problems, depression, and schizophrenia) was entered as the independent variable (IV). A significant main effect was found for problem type, $F(1.9, 266.2) = 7.34, p < .001, \eta^2 = .05$. As indicated in Table 5, follow up paired samples T-tests revealed significant differences in willingness to seek help between a psychotic disorder and depression and between a psychotic disorder and marital problems. No differences were found between depression and marital problems. Thus, the hypothesis that individuals would be more likely to seek treatment for more severe problems was partially supported.

Table 5 Paired Sample T-Tests of Willingness to Seek Help Categories

Pair	<i>M</i>	<i>SD</i>	<i>Df</i>	<i>t</i>
Willingness to seek help for depression	-.105	.766	142	-1.64
Willingness to seek help for psychotic symptoms				
Willingness to seek help for depression	.164	.870	142	2.26*
Willingness to seek help for marital problems				
Willingness to seek help for psychotic symptoms	.271	.922	141	3.51***
Willingness to seek help for marital problems				

* $p < .05$. *** $p < .001$

Exploratory Analyses

Correlational analyses were used to examine the relationships among demographic, rurality, and two specific treatment-seeking variables: willingness to seek treatment (asking how willing the individual would be to seek treatment in the future if needed) and treatment history (asking if the individual had ever sought treatment for mental health issues in the past). Prior treatment history was found to be negatively related to willingness to seek treatment ($r(146) = -.22, p < .01$), indicating that those who reported

a history of mental health treatment also reported a greater willingness to seek treatment in the future. Education was positively related with willingness to seek treatment, and negatively related to treatment history ($r(143) = -.24, p < .01$), indicating that more educated participants were more likely to report receiving prior mental health treatment. Scores on the PST were negatively related to treatment history ($r(105) = -.27, p < .01$), such that participants reporting more mental health symptoms were more likely to report prior mental health treatment. Surprisingly, few significant relationships were found between rurality and treatment provider variables. One exception was a trend between the length of time an individual had resided at their current location and their choice of provider. Individuals who reported longer terms of residence tended to report a preference for mental health providers from their hometown or nearby ($r(141) = -.195, p < .05$).

DISCUSSION

Professionals preparing to practice in rural settings will find scarce empirical literature on rural mental health provision. This study sought to add to that literature by examining the factors that influence the willingness of rural residents to seek mental health services. Willingness to seek treatment in this study was measured by past treatment history and willingness to seek treatment if participants had mental or emotional problems in the future. Replicating previous findings, certain participant characteristics were related to willingness to seek treatment, including education, marital status, and ethnicity.

Individuals with more years of formal education were more likely to have sought treatment in the past and more willing to seek treatment in the future. This finding was expected because formal education generally exposes individuals to information about mental health issues (e.g. facts about mental illness and the roles of different types of providers) that would help them to understand mental illness as a treatable condition, be less likely to be affected by stigma, know more about provider roles and what treatment might involve. With this knowledge, seeking treatment might be seen as a viable option when a mental health problem arises. From a purely practical perspective, more educated individuals in this sample also had higher salaries, and would therefore be more able to afford mental health services.

Individuals who had ever been married (e.g. currently married, separated, divorced, and widowed individuals) reported a greater willingness to seek treatment than those who had never married. Interestingly, marital status was not related to actual treatment history. That is, individuals who had ever been married individuals were more willing to seek treatment, but were not more likely to have sought treatment in the past. This pattern fits well with previous findings that because married individuals are more likely to be influenced to seek health care by a concerned spouse (Norcross, Ramirez & Palinkas, 1996), but also that marriage offers some protective factors against health problems in general (Prior & Hayes, 2003). Individuals who have a spouse may be less stressed, less lonely, suffer less from depression, be less likely to experience problems with alcohol and drugs, and hence have less need to seek mental health services.

Consistent with previous research, European-Americans were more willing to seek treatment than ethnic minorities, although not more likely to have sought treatment in the past. Given that the European-American population was better educated and had higher

salaries, it is not surprising that they would be more willing (considering education as reducing stigma of mental issues), and more able (due to financial resources) to seek services. These same factors, however, would likely make them less in need of services. Fewer financial stressors, better jobs, and more advantages as members of the dominant culture all translate to less stress for individuals. Different Native American populations have also been found to have varying ideas about mental health and the appropriate sources of help for different problems (List, 1997). Given findings that Native Americans are encouraged to utilize support from within their Native community (Cadieux, 2001), and prefer therapists of their same ethnicity (Bichsel, 1998), the limited range of providers available in many rural settings may have particular implications for this population. If Native American providers are not available, and if available providers are not culturally sensitive, this may result in less willingness to seek treatment. We must also consider the possibility that treatment needs are addressed in this population in ways more in keeping with Native American culture; this has been referred to as “culture as treatment” (Abadian, 2000).

Surprisingly, older individuals and more rural individuals were not less willing to seek treatment. Certain characteristic of the dataset may have influenced this finding. First, treatment options available to urban individuals are generally absent or in short supply to the rural participants in this study, leaving primary care physicians and clergy to function as de facto mental health providers. Thus, older individuals may have been more willing to seek treatment than expected, given that the providers they would likely be consulting would be medical professionals and clergy. Second, because data were collected in a highly rural setting, the differences between the most rural and urban members of this population may have been too small to accurately measure the role of rurality in treatment-seeking decisions.

A separate question relates to how best to define rurality. Factor analysis revealed considerable overlap among categorical and attitudinal measures of rurality (population of current hometown, living situation, length of time in the area, population of birthplace, population of place lived most, and self-definition as rural or urban), with many of the variables loading on each of the two components identified. Although this overlap complicates the factor structure somewhat, it suggests that Component 1 describes participants’ current situation and personal identification, while Component 2 relates more to the individual’s rural history.

The hypothesis that level of rurality would be associated with a preference for a therapist of whom the individual had greater prior knowledge, independent of the contribution of demographic factors, was not supported by an analysis of this data. The planned analysis was not completed due to the fact that none of the variables were significantly correlated with preference for greater therapist knowledge. Rurality and other demographic factors within this sample were not related to preference of therapist knowledge. This runs counter to prior literature indicating that providers who are known in a community might have some advantage in terms of establishing client trust (Jennings, 1992; Pope & Vetter, 1992).

The hypothesis that individuals would be more likely to seek treatment for more severe problems was partially supported. Participants were more likely to seek treatment for psychotic symptoms or depression than for marital problems. However, in contrast to

previous research (Angermeyer, Matschinger, & Riedel-Heller, 1999), there were no significant differences in willingness to seek treatment for psychotic or depressive symptoms. Possibly, this is because the present study defined “depressed” in terms of common symptoms of the disorder, including vegetative symptoms related to appetite and problems sleeping, which may have influenced participants to see depression as a more serious problem or perhaps a more treatable problem than if the dysphoric symptoms were presented alone.

It was hypothesized that more rural individuals would be likely to feel comfortable with providers who were more familiar to them. In general, the expected relationships among rurality variables and treatment provider variables did not materialize. One exception to this was a trend for individuals who have lived at their current location longer to prefer mental health providers from their hometown or nearby, rather than farther away. This finding is in keeping with earlier writings regarding rural individuals’ level of comfort with greater interconnectedness (Jennings, 1992). It makes good intuitive sense that individuals who have lived for a long time in a certain rural setting would be very accustomed to the high level of familiarity among residents and perhaps even more comfortable with this greater knowledge. Those individuals who have lived longer in the area are also more likely to be older individuals, and so this variable may also be serving as a proxy for age. Age was not found to be a significant factor in individual’s willingness to seek treatment in this study, but perhaps age by itself did not fully capture the expected relationship. Individuals who are older but have lived some significant portion of their lives in a more urban setting would not be expected to respond in the same way as older rural individuals.

Exploratory analyses of the data were conducted to further examine the relationships among demographics, rurality, and treatment seeking. These revealed that individuals with prior mental health treatment history were more willing to seek treatment in the future. Interestingly, the data collection period provided some anecdotal evidence of the hypothesized differences between rural and urban individuals concerning mental health issues and anonymity. Over the course of data collection, participants (particularly older ones) would sometimes ask where the investigator was from. When told that she was studying at the university, but was originally from the county where the data collection site was located, participants would almost invariably ask additional questions about maiden name and family connections, in an apparent attempt to “place” her within a known frame of reference. The subjective experience of this process was that obtaining this information made participants more comfortable and willing to participate. Once a family connection was established, and the investigator was identified as a “local”, many participants appeared to have little concern for the explained confidentiality of the data collection process. This data collection experience seemed in keeping with literature suggesting that rural individuals have a higher comfort level with multiple levels of connection in their lives, and that they may actually have more trust or be more willing to seek treatment from individuals of whom they have some prior knowledge (Jennings, 1992).

It was surprising that nearly half of the men (43.2%) reported high levels of distress on the BSI. Although this may be due to the data collection site, a primary care clinic, there is no reason any sample biases would have affected men disproportionately. Perhaps the known economic hardships of rural life (Bergland, 1988; Korte, 1983), impact males

more within a traditional framework of rural life, leading them experience greater stress and mental health related symptoms.

For both men and women, there are several contextual factors that may have affected BSI scores. Since subjects were recruited from the waiting room of a primary care clinic, it is likely that many of them were being surveyed at a time when their lives were complicated by health factors that may have led to higher levels of symptom reporting. Some participants were experiencing age-related health problems, chronic illness, or mental or emotional problem, which may have lead to selection bias. Individuals needing mental health services are disproportionately high users of medical services (Chiles, Lambert, & Hatch, 1999). In addition, data was collected during the week following the terrorist attacks of September 11, 2001. Horrific images in the media and the risk of further attacks were frequently discussed by participants. Because the BSI asks respondents to rate the extent to which certain symptoms have bothered them during the past 7 days including today, the recency of September 11th may have influenced responses.

There are several limitations of this study that must be noted. The first related to the extremely rural nature of setting, which is located two hours from any town of 20,000 people or more and actually classifies as a “frontier area”, a designation indicating that there are fewer than seven persons per square mile. This setting may not have provided enough variability to effectively examine the differences between “more and less rural” individuals, and may have impacted some of the analyses. Other characteristics of this rural area (e.g. Western, ranching, wide population dispersement over a large geographical area) may limit the generalizability of results among other rural populations. The specific rural characteristics of this population also constitute a strength of the study, however, given the paucity of research available regarding this group. In terms of the measures used in this study, the hypothetical nature of certain treatment questions may have been difficult for some participants. Specifically, in answering questions related to preference of mental health treatment provider (psychiatrist, psychologist, mental health counselor, self-help group, etc) it may have been unclear that participants should answer as if all options were available in their community. It is possible that some participants answered such questions by considering only those services which were actually available.

In conclusion, the major hypotheses relating level of knowledge of providers to treatment seeking decisions were not supported, with the exception that longer-term residents tended to be more likely to seek services from individuals in their hometown or nearby, rather than farther away. The study data suggest that rural individuals are open to mental health services, especially for more severe problems and anecdotal evidence indicated personal knowledge of the researcher was important to participants. Defining rurality continues to be a challenge. It appears that both the current residence and individual historical context are important. Future research should carefully assess the multiple dimensions of rurality.

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