A Multi-Site Delphi Study to Identify and Prioritize Mental Health Needs of Rural Communities in Texas Public Health Region 11

Renée E. Weiss
Texas A&M University – Kingsville

Daniella G. Varela
Texas A&M University – Kingsville

Kelly S. Hall
Texas A&M University – Kingsville

Steve F. Bain
Texas A&M University – Kingsville

Don J. Jones
Texas A&M University – Kingsville

ABSTRACT

The purpose of this qualitative study was to identify and prioritize the mental health needs of rural communities in Texas Public Health Region 11 utilizing the Delphi method. Rural individuals face unique challenges when attempting to receive treatment for serious mental illness and mental health care. Stigma, a lack of privacy when seeking treatment, a shortage of mental health workforce professionals, a lack of culturally competent care, affordability, and transportation are all factors that complicate the need for treatment. This study utilized the Delphi method to engage rural community members in identifying and addressing critical issues related to mental healthcare delivery in their county. The sample for this study was selected from the population which comprise Texas Public Health Region 11 communities that were identified as rural communities within Health Professional Shortage Areas (HPSA) using an exponential nondiscriminatory snowball sampling method. Knowledge gained from the study will help to address challenges and critical issues in mental healthcare delivery in rural communities, such as workforce shortages, access issues, anonymity, stigma, integration of mental health services into primary care, and suicide prevention. The study's implications for refining, developing, and increasing rural mental health research, and implications for practice for mental health treatment providers in rural communities are discussed.

Keywords: rural mental health, Health Professional Shortage Area (HPSA)

INTRODUCTION

Finding experts to treat mental health issues in rural and isolated areas is difficult, as is establishing how accessible these services are, how much they will cost, and how the community may associate specific stigma with accessing specialized mental health care (DuBois & Farquhar, 2020). Even when those in rural communities find and utilize resources, the effectiveness of these resources must be evaluated (Bain, 2021). According to recent polling conducted by the National Council for Mental Wellbeing (2020), the demand for mental health and addiction treatment services has risen drastically, while the COVID-19 pandemic continues to erode behavioral health organizations' financial viability and reduce access to life-saving treatment and services. In terms of obtaining adequate treatment for serious mental illness and mental health issues, people in remote communities confront distinct hurdles, including the willingness to undergo treatment, lack of privacy when seeking therapy, staffing shortages, lack of culturally competent care, cost of care, and travel (Rural Health Information Hub, 2022a).

There is little to no consensus in the research literature regarding the most effective strategies for addressing challenges and identifying critical staff shortages, access barriers, anonymity, stigma, incorporation of mental health treatment into general practice, and suicide prevention in rural areas. Further study is needed to help health and human service providers in Texas Public Health Region 11 create, maintain, and grow mental health services in rural regions.

In a number of rural areas around the nation, a lack of adequate resources makes it difficult to meet mental health treatment needs. While the incidence of mental illness is comparable in rural and urban settings, the available services may vary considerably (Rural Health Information Hub, 2022b). This study may aid health and human service providers in region 11 of the Texas Department of Public Health in developing, sustaining, and expanding rural mental health services. It may draw attention to concerns like staffing shortages, barriers to access, and stigma in the delivery of mental health care. Additionally, this study may help determine effective practices for addressing the mental health needs of rural communities in Texas Public Health Region 11.

PURPOSE OF THE STUDY

The purpose of this Delphi study was to identify and prioritize the mental health needs of rural communities in Texas Public Health Region 11. The results may assist in overcoming barriers and key challenges in rural mental health care delivery, such as staff shortages, access difficulties, anonymity, stigma, mental health integration with primary care, and suicide prevention. The study may also serve as an analytical framework for future studies to answer the same research questions with different panels of experts. For planning, impact assessment, and policy analysis, Delphi, and other methods of generating projections utilizing expert opinion might be valuable (Dietz, 1987). The findings may improve mental health care in the communities in which the research was conducted. Additionally, discussed are implications for rural mental health research refinement, development, and expansion, as well as implications for practice for mental health care providers in rural regions.

REVIEW OF LITERATURE

Background

According to the results from the 2020 National Survey on Drug Use and Health: Detailed Tables (Substance Abuse and Mental Health Services Administration, 2020a), approximately 7.7 million rural persons, or 20.5% of all rural adults, reported having any mental illness (AMI) in the last year. In addition, 1.8 million individuals in rural regions, or 4.8%, reported having suicidal thoughts throughout the year. Even though the prevalence of mental illness is equivalent in rural and urban settings, the services provided are different (Morales et al., 2020). Due to a lack of appropriate resources, many rural regions in the United States are unable to satisfy their mental health requirements. People with mental health concerns may struggle to find care due to a shortage of clinicians across the country, and this situation is exacerbated in rural locations. Rural or mostly rural areas account for 61% of areas with a mental health professional deficit, according to the Health Resources and Services Administration (HRSA) (Substance Abuse and Mental Health Services Administration, 2021).

The Western Interstate Commission for Higher Education (WICHE) identified the following as impediments to the delivery of mental health services in rural areas (Rural Health Information Hub, 2021):

- Accessibility – Rural populations commonly travel long distances for treatment, are less likely to possess insurance, and have primary providers less likely to diagnose mental illness.
- Availability – Mental health specialists are in low supply, and those who do practice are more likely to do so in metropolitan areas.
- Affordability – Some rural individuals without health insurance may be unable to pay the expense of therapy.
- Acceptability – In small communities in which everyone knows one another, citizens may be especially vulnerable to the stigma of requiring or obtaining mental healthcare.

Shortages in mental health treatment and services exist in some geographic locations, populations, and facilities across the United States. The Health Resources and Services Administration (HRSA) collaborates with State Primary Care Offices (SPCOs), such as the Texas Primary Care Office (TPCO), to determine whether a shortfall qualifies as a Health Professional Shortage Area (HPSA) (Texas Department of State Health Services, 2021b). By enhancing the availability, capacity, and distribution of health professionals, the shortage designation procedure assists in allocating scarce resources to the places that have the greatest need. Because specific incentive programs are available in identified shortage regions, an HPSA designation may assist a town in attracting more primary care, mental health care, and dental health care employees. It may also improve Medicare and Medicaid payouts to community-based healthcare providers. Over 30 federal and state programs currently use shortage designation to determine eligibility. The Bureau of Health Workforce (2022) defines Health Professional Shortage Areas (HPSA) as geographic areas, populations, or facilities that have a shortage of mental, dental, or basic care.

When a scarcity of providers arises for a specific group of individuals within a specified geographic region, such as low-income or migratory farm laborers, a population HPSA occurs. HPSA Scores are created for the National Health Service Corps to utilize in determining clinician assignment priorities. Using the most liberal federal threshold for HPSA classification, most Texas counties do not have enough psychiatrists (Statewide Health Coordinating Council, 2016). According to the Texas Department of State Health Services (2018) the demand for psychiatrists

in Texas is projected to grow by 18.9% between 2017 and 2030. Demand for psychiatrists will outpace supply, leading to a deficit of 1,208 full-time equivalents (FTEs).

More than 115 million Americans reside in designated Health Professional Shortage Areas (Andrilla et al., 2018). In these areas, the number of mental health experts per 30,000 persons is less than one.

- The United States has an average of
    - 30.0 psychologists per 100,000 people
    - 15.6 psychiatrists per 100,000 people
- Metropolitan counties have an average of
    - 33.2 psychologists per 100,000 people
    - 17.5 psychiatrists per 100,000 people
- Non-metropolitan counties have an average of
    - 13.7 psychologists per 100,000 people
    - 5.8 psychiatrists per 100,000 people
- Rural counties (areas without any cities larger than 10,000 people) have an average of
    - 9.1 psychologists per 100,000 people
    - 3.4 psychiatrists per 100,000 people

Shortages are more likely to occur in rural areas due to the lack of funding and infrastructure (Texas Department of State Health Services, 2018).

The Substance Abuse and Mental Health Services Administration (United States Department of Health and Human Services et at., 2016) estimates that by 2025, the U.S. will have a shortage in the following areas:

- 10,470 marriage and family therapists (40,250 needed; 29,780 available)
- 15,400 psychiatrists (60,610 needed; 45,210 available)
- 26,930 mental health counselors (172,630 needed; 145,700 available)
- 48,540 social workers (157,760 needed; 109,220 available)
- 57,490 psychologists (246,420 needed; 188,930 available)
- 78,050 school counselors (321,500 needed; 243,450 available)

Both declining supply and rising demand are to blame for these shortages. Professionals are retiring from certain sectors at a faster rate than younger professionals are replacing them (Texas Department of State Health Services, 2021b). According to the Texas Department of State Health Services, in 2014, 206 of Texas' 254 counties were designated as Mental Health HPSA counties in whole or in part (Bain, 2021).

Further, in 2015, 185 Texas counties lacked a single psychiatrist, leaving almost three million Texans without access to a psychiatrist (Hogg Foundation for Mental Health, 2016). According to current data, 170 of Texas' 254 counties lack a psychiatrist (Texas Department of State Health Services, 2021c). The federal HPSA designations for these core mental health professionals (CMHP) provide for a population-to-CMHP ratio of 9,000:1 for psychiatrists, 6,000:1 for psychiatrists, and 20,000:1 for psychiatrists. According to these parameters, 23.3% of the population of Texas lived in 199 counties with mental health staffing shortages in 2013 (Texas Department of State Health Services, 2014). HPSAs with particularly high mental health provider needs may be defined as areas with more than 20% of their population living in or near poverty, large proportions of underage or geriatric populations, or levels of alcohol/substance abuse in the top quartile of national, state, or regional prevalence. A 20,000:1 population-to-psychiatrist ratio, a 6,000:1 population-to-CMHP ratio, or a 4,500:1 population-to-CMHP (excluding psychiatrists) ratio, and a 15,000:1 population-to-psychiatrist ratio are all required for classification in these

regions. Four more counties were added to the shortage as a result of the larger definition, resulting in 203 counties and over 6.6 million Texans (24.9%) having whole-county shortages (Texas Department of State Health Services, 2014).

According to the most recent Health Professional Shortage Areas (HPSA) dashboard, there are 163 HPSA facilities, 211 HPSA geographic areas, and 60 population groups with a total count of 434 HPSA's in Texas (Rural Health Information Hub, 2022b). Texas Public Health Region 11 is one of the eight public health regions managed by the Texas Department of State Health Services which is the state agency in charge of providing comprehensive public health services to Texans. In the Rio Grande Valley, Public Health Region 11 covers 19 counties. All counties in Public Health Region 11 have been recognized as complete Mental Health Shortage Areas, with the exception of Nueces County. HPSA designations do not consider the availability of additional mental health services provided by other mental health practitioners such as clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists in the area (Texas Department of State Health Services, 2021c).

Stigma

Mental health has far-reaching ramifications in a variety of areas, including law, religion, governmental policy, politics, personal life, and social life. Therefore, many vested interests have impacted the public's and medical professionals' perceptions of mental health, increasing the stigma idea (Thirunavurakasu et al., 2011). The greatest hurdle is stigma. Individuals in rural communities are reticent to admit that they need aid from others, preferring to adhere to the notion of rugged independence (Stewart, 2018). The idea of stigma encompasses three interconnected issues: a lack of understanding (ignorance and disinformation), unfavorable attitudes (prejudice), and the exclusion or avoidance of certain activities (discrimination) (Eissa et al., 2020). Stigma delays getting assistance, obstructs mental disease diagnosis and treatment, hinders recovery and rehabilitation, and limits prospects for fuller life involvement (Shidhaye & Kermode, 2013). Stigmatization can impair a person's self-esteem, disrupt family ties, and damage their ability to find work (Chang et al., 2019).

Financial Insecurity, Insurance, and Reimbursement

While specialized mental health treatment is typically scarce, families without the financial means or insurance face much greater difficulties. In Texas, 18.4% of inhabitants do not have health insurance (Kaiser Foundation, 2021). Texas has the highest rate of uninsured children in the country. In Texas, 250,000 children went without health insurance between 2016 and 2019 (Alker & Corcoran, 2020). At least 350,000 uninsured children in Texas are eligible for Medicaid or the Children's Health Insurance Program (CHIP), but are not enrolled (McChesney, 2019). Furthermore, Texas' uninsured child rate increased by 2.9% from 9.8% in 2016 to 12.7% in 2019, and 17.5% of Latino children in Texas were uninsured in 2019, far higher than the national average of 9.2% (McChesney, 2019).

The capacity of rural providers to deliver mental health treatments is influenced by the remuneration granted by payers such as Medicaid, Medicare, and private insurance (Rural Health Information Hub, 2021). When payment rates are poor, rural health clinics may be unwilling to offer mental health services. Furthermore, according to Gale et al (2010), high no-show rates among mental health patients, as well as many uninsured patients, compound the problem of Medicaid and other payers' low payment rates. Although offering mental health treatments

through telemedicine has shown potential in alleviating the shortage of mental health practitioners, high no-show rates among mental health patients, as well as many uninsured patients, compound the problem of Medicaid and other payers' low payment rates.

Integration of Mental Health Services in Rural Communities

Local mental health authorities (LMHAs), often known as community mental health clinics, are the primary providers of public mental health services. The Texas Department of State Health Services (DSHS) functions under the HHSC umbrella. The Department of State Health Services (DSHS) is responsible for public health functions such as vital statistics, compiling and disseminating health data, chronic and infectious disease prevention, maternal and child health, laboratory testing, and licensing and regulating certain facilities and operations (Hogg Foundation for Mental Health, 2021b). The Texas Health and Human Services System contracts with 37 LMHAs and two local behavioral health authorities to assess the mental health needs of their communities, plan, develop policy, coordinate services, use resources to address those needs, and deliver mental health services in Texas communities (Texas Health and Human Services, 2022). All LMHAs in Texas have crisis call centers that are staffed 24 hours a day to react to Texans' mental health needs. Due to provider reimbursement rates and substantial mental health labor shortages in rural counties and along the Texas-Mexico border regions, several LMHAs have had difficulty establishing effective contracts for services, particularly rehabilitation and other regular outpatient treatments. LMHAs are frequently the primary service providers in such situations (Hogg Foundation for Mental Health, 2021b).

The Effect of COVID-19 on Rural Mental Healthcare Access and Outcomes

During COVID-19, mental health difficulties are exacerbated by preexisting reasons for health inequities, as well as additional obstacles faced by living in a rural community Hogg. According to the Kaiser Foundation (2021), the percentage of individuals experiencing symptoms of anxiety or depression has nearly tripled during the pandemic, rising from 11.0% in 2019 to 31.6% in the fall of 2021. Residents were exposed to emotions of loneliness, detachment from routines, and despair as a result of social distancing measures. The concern felt by 22 million unemployed people in the United States complicates the mental health situation in the country (Summers-Gabr, 2020).

Rural communities, on the other hand, faced a more serious scenario since they were dealing with these challenges as well as greater incidence of preexisting conditions and limited access to health care. Taking preventive efforts to improve mental health is especially crucial during pandemics, according to the Centers for Disease Control and Prevention (2021a), because it is yet unclear how stressful experiences impact suicidal ideation and conduct (Pfender, 2020). From August 2020 to February 2021, the percentage of adults with anxiety or depressive symptoms in the previous seven days and those with unmet mental health needs in the previous four weeks increased significantly, with the largest increases among those aged 18–29 years and those with less than a high school education. More than two out of every five individuals aged 18 years exhibited signs of anxiety or depressive condition in the previous seven days between January 20, 2021, and February 1, 2021. One out of every four people with these symptoms claimed they required mental health counseling or therapy but did not receive it (Vahratian et al., 2021).

Telehealth is one method to treat mental health concerns during COVID-19 (Leite et al., 2020; Zhou et al., 2020). Previous research has found that using telemedicine for mental health treatment had favorable results for depression symptoms (Bashshur et al., 2016). Telehealth is one of the first responses to the epidemic, and it has the potential to have far-reaching effects for rural health (Hirko et al., 2020). Telehealth, on the other hand, necessitates broadband connectivity, the ability to pay for technological gadgets such as a smartphone or laptop, and a certain level of technical expertise (Leite et al., 2020). Telehealth is presently not a viable solution for inequities in mental health access for rural, elderly, and other vulnerable groups in the United States. In terms of mental health, the absence of broadband connection during COVID-19 exacerbates the generational cycle of poverty and mental illness. According to the Federal Communications Commission (FCC), 21.3 million Americans do not have access to broadband, although other estimates put the number closer to 42 million (Busby & Tanberk, 2021). Without broadband connectivity, children are unable to participate in remote learning activities (Summers-Gabr, 2020); as a result, pupils will be isolated from peers and mentors, and will lag in learning milestones compared to their urban or wealthy classmates. Adults with non-broadband connectivity have a restricted ability to work remotely (Sigahi et al., 2021).

Mental Health Services for Veterans in Rural Communities

Veterans have a 52.3% higher adjusted suicide rate than the general adult population in the United States (Department of Veteran's Affairs, 2021). Adult suicides in the United States are accounted for by 13.7% of those who had previously served in the military (U.S. Department of Veterans Affairs, 2021). In 2019, 1.6% of former active-duty military members between the ages of 18 and 25 reported attempting suicide in the preceding 12 months (Substance Abuse and Mental Health Services Administration, 2020b). Rural regions have a higher proportion of veterans, accounting for more than 25% of all veterans (United States Census Bureau, 2021). Veterans who lived in rural regions had a 20% greater suicide risk than veterans who lived in metropolitan areas (Mohatt et al., 2018). When compared to their younger counterparts, older veterans who die by suicide are more likely to live in rural locations, which may be a contributing cause to the higher suicide rate (Kaplan et al., 2012).

The Impact of Suicide in Rural Areas

Suicide can afflict persons of any age, race, ethnicity, or gender; however, some groups, such as veterans, rural residents, sexual and gender minorities, middle-aged adults, and tribal cultures, are more likely to die by suicide (13.9 per 100,000) (Centers for Disease Control and Prevention, 2022a). Between 1999 and 2015, suicide rates in the United States grew in all urban and rural locations, with rural areas having higher rates than urban areas and rates that are growing more quickly over time (Kegler et al., 2018). Suicide rates rise when a community's population density declines and it becomes more rural (Centers for Disease Control and Prevention, 2021b). In urban regions (metropolitan counties), white non-Hispanics have the greatest suicide rates, whereas Native Americans, American Indians, and Alaska Native Non-Hispanics have the highest rates in rural areas (Centers for Disease Control and Prevention, 2018). Rurality put males at greater risk than women, although men die by suicide at a higher rate than women (Casant & Helbich, 2022).

The reason for the disparity in suicide rates between urban and rural locations has yet to be determined (Casant & Helbich, 2022). Access to services, availability, lack of mental health insurance, access to fatal methods, geographical and social isolation, and stigma associated with seeking treatment are all possible factors for the much higher prevalence of suicide among teenagers and young adults in rural regions (Morales et al., 2020). Rurality, according to Hirsch and Cukrowicz (2014), may interact with other demographic risk variables such as gender, age, race, and ethnicity. Geographic isolation, agrarian lifestyle factors, access to lethal means such as firearms and pesticides, and a culture that promotes individualism and rugged independence, which may also promote stigma associated with mental illness or seeking treatment for suicidality, have all been identified as risk factors unique to rural areas (Morales et al., 2020). According to research, the earlier children are taught emotional literacy abilities, the better their functioning will be and the more resiliency they will develop (Stewart, 2018).

Key Legislation in Texas

Over the past several years, key legislative efforts have taken place regarding improving mental health. This section provides an overview of legislative efforts beginning with the Texas 84th legislative session and ending with the 87th legislative session. During the 83rd Legislature's Regular Session, Texas House Bill 1023 mandated that the Health and Human Services Commission (HHSC) and, later, the Department of State Health Services (DSHS) submit a report to the legislature with policy recommendations for addressing the state's mental health workforce shortage. The study (Texas Department of State Health Services, 2014) includes parts that provide background on the Texas' mental health workforce gap as well as key aspects to examine when suggestions are developed to address the shortage. In addition, interim charges targeting the mental health workforce have been assigned to both the Texas House and Senate. Even though the subject had received much attention, just a few legislative acts were taken.

Recognizing the need for investment in mental health, Texas legislators introduced several key mental health proposals in the 86th legislative session, including measures to increase the capacity of the mental health workforce (Hogg Foundation for Mental Health, 2021a). The 85th Legislature made significant expenditures in improving access to support and services, addressing the mental health worker deficit, and improving the quality of behavioral health services required by Texans (Texas Health and Human Services, 2019). The 86th Legislature committed investments to continue the redesign and building of inpatient mental health facilities, demonstrating the legislature's commitment to ensuring that Texans have access to important mental health care. Furthermore, Texas Senate Bill 10 (2019) established the Texas Child Mental Health Care Consortium, which draws on the expertise of health-related institutions of higher education and the Statewide Behavioral Health Coordinating Council, which includes the Texas A&M University System Health Science Center, to improve collaboration and alignment among these entities and to improve the effectiveness and accessibility of behavioral health care.

The 87th Texas Legislature made numerous critical decisions to strengthen access to mental health services and support including early intervention; criminal justice; insurance coverage, parity, and mediation; housing and other supports; mental health system capacity, targeted populations; and crisis services and suicide prevention (see Appendix A). The 87th Legislature extended Medicaid benefits to new moms from two to six months, improved access to broadband and telehealth services, and established new ways to promote equity in insurance coverage. An additional $15 million for inpatient psychiatric beds in urban areas and $15 million for inpatient psychiatric beds in rural areas to ensure that more people experiencing a mental

health crisis can access timely care in the least restrictive setting possible was established. A Broadband Development Office was developed to conduct various duties that will improve access to broadband services in rural or remote communities to ensure that individuals living with mental illness who reside in rural or remote areas in Texas can access needed telehealth services. Further, the 87th Legislature made notable steps toward strengthening youth mental health services, such as increasing access to suicide prevention information, but significant need exists for legislation regarding coverage for mental health care, higher education mental health care, and school-based mental health support (National Alliance on Mental Illness Texas, 2021). Unfortunately, limited progress was made on other important mental health policy issues, including improved access to peer support, integrated crisis response, and services that promote health equity in underserved communities.

STATEMENT OF THE PROBLEM

There is a the lack of consensus in the research literature regarding the most effective methods for identifying and prioritizing critical staff shortages, access challenges, anonymity, stigma, the incorporation of mental health treatment into general practice, and suicide prevention in rural areas. The crucial need for decisive and definite advocacy, education, care, and research is important due to the dynamic pressures, obstacles, and changes related with rural mental health (Bain, 2021, p. 2). In the United States, a scarcity of mental health professionals in rural areas exists (Rural Health Information Hub, 2021). This research is focused on identifying and prioritizing the mental health needs of rural communities to aid health and human service providers in developing, maintaining, and expanding mental health services in these locations.

METHOD

Research Questions

The following questions guided this study to identify and prioritize critical mental health needs of rural communities in Texas Public Health Region 11 utilizing the Delphi method:

RQ1: What is the meaning of mental health?

RQ2: What are the most prominent factors that impact mental health?

RQ3: What are the perceived barriers to receiving mental health treatment?

RQ4: What are suggested solutions that could meet the mental health needs of the rural community?

Framework of the Study

Two conceptual frameworks and one analytical framework guided the study. The concept of rural mental health incorporates the socioecological model. Bronfenbrenner's socioecological paradigm asserts that influences at numerous levels, from the individual to the macro or societal level, impact health and human development (Alvidrez et al., 2019). The concept indicates that health outcomes might transcend numerous levels in addition to health inequalities factors (individual, family and organizational, community, and population) (Alvidrez et al., 2019). The ecological model posits individuals would change in response to shifts in the social environment, and population support is necessary to accomplish environmental factors individuals would

change in response to changes in the social environment, and population support is necessary to accomplish environmental changes (McLeroy et al., 1988).

Concept of Need

The study may also serve as a framework for future studies to answer the same research questions in the rural communities of other Public Health Regions in Texas. According to Beatty (1981), "need is defined as: the measurable discrepancy existing between a present and a desired state of affairs as asserted either by an "owner" of need or ail "authority" on need" (p. 39). In conducting community needs assessments, the definition of need is a fundamental driver of both substance and technique (Beatty, 1981). Beatty (1981) suggests that utilizing the concept of need will enable researchers to have essential benchmark data that will offer a perspective of both current and planned conditions as well as a world view perspective of significant groups of the community.

RESEARCH DESIGN AND APPROACH

The study was qualitative in nature and used the Delphi method for identifying and prioritizing the mental health needs of rural communities in Texas Public Health Region 11. The Delphi method was developed in line with John Dewey's pragmatism-based philosophical beliefs (Dalkey & Helmer, 1963), and is cost-effective as it can incorporate low-cost questionnaires ranging from open-ended to organized, readily disseminatable among group members via verbal, traditional, or electronic delivery. It is unconcerned about possessing a generally applicable representation, information is obtained from a purposive sample of individuals with some level of skill in a certain field, and it lacks the complex nature of a variety of additional study methods that require specialized education (Skulmoski et al., 2007).

Jorm (2015) suggested the Delphi method is a viable alternative to research methods that are more experimental in nature and that this method has resulted in a range of evidence-based mental health interventions. Utilizing the Delphi method is an effective research tool in that it may help in the development of a consensus of ideas that may be used as both a manner of assessing and applying solutions to a problem (Brady, 2015). The Delphi method is typically utilized when dealing "with questions that are closely related to practice needs" (Jorm, 2015, p. 894). The method also brings communities together for the consideration of both individual and collective voice thus complimenting underserved communities and populations Bain et al., 2022).

According to Willems et al. (2015), the Delphi method can facilitate change. The RAND Corporation created the Delphi approach in the 1950s to forecast the impact of technology on conflict. Since that time, health care, education, management, and environmental research have all benefited from it. Researchers often utilize the Delphi method for stakeholders to anonymously respond to questions, receive feedback that represents the group response, discuss, and update their responses to see if they can come close to a consensus. Member engagement qualifications should contain quantitative attributes indicating competence while attempting to recruit a wide variety of individual viewpoints within those boundaries (Avella, 2016). According to Avella (2016), studies in which the investigator declares to be the only decider of volunteers with a practical skillset produce biased results, and researchers should avoid being the sole determinant of who participates. Many published Delphi studies involve panels of 10 to 100 panelists or more (Akins et al., 2005). The sample size in Delphi studies has been determined by the researcher and the situation, and convenience samples have frequently been chosen based on the availability of

experts and resources (Akins et al., 2005). In information systems research, the Delphi approach has shown to be an effective way for identifying and ranking challenges for management decision-making (Okoli & Pawlowski, 2004). Niederberger and Spranger (2020) maintain the Delphi method is "highly relevant in health science studies" (p. 2). The goal is to reach the most credible agreement among a group.

The panel of experts for this study comprised community level stakeholders including household heads, parents, educators, and community workers who resided within the county, were over the age of 18, and were able to provide their perspective on rural mental health needs in their community. The selected communities were counties in Public Health Region 11 that have been identified as a whole HSPA and have similar populations of less than 10,000 people according to the most recent census. They are included in the text as County A (population 6,994), County B (population 4,801), and County C (population 6,756).

Further, the local school district served as the point of contact when volunteer community stakeholder participation was sought. Mental illness places fiscal and psychological burdens on school-aged youth and the education agencies that serve them (O'Malley et al., 2018). In rural places, a disparity exists between the growing mental health needs of school-aged adolescents and the resources available to meet them (O'Malley et al., 2018). Although rural and urban contexts are comparable in terms of the frequency of mental health difficulties in children, rural communities have distinct demographic and psychological factors that may influence the need for, access to, and utilization of mental health services (O'Malley et al., 2018). Individual leadership traits fit with the mindset of a small rural community may be formed by educational leaders who establish personal identities tied to a rural area and learn to genuinely respect the richness of rural lifeways (Harmon & Schafft, 2009). According to Harmon and Schafft (2009) the importance of developing effective educational leaders for rural areas cannot be overstated.

Population and Sample

A multiphase sampling approach was used. Phase 1 involved selecting communities from within Public Health Region 11. The rural communities were purposefully selected from Public Health Region 11, identified by the Health Resources and Services Administration (HRSA) as a whole Health Professional Shortage Area (HPSA), had similar populations of less than 10,000 people according to the most recent census and had one school district. The three counties and school districts that were identified and independently studied included:

- County A (population 6,994)
- County B (population 4,801)
- County C (population 6,756)

Phase 2 of sampling involved selecting individuals to participate in the Delphi approach. Educational leaders who acquire personal identities tied to a rural area, grow to genuinely respect the quality of rural living ways, and cultivate individual leadership traits that fit with the mindset of a small rural community, are more likely to be successful (Harmon & Schafft, 2009, p. 4). By creating local identity and a feeling of shared purpose, well-functioning schools aid in the social integration of towns and neighborhoods (Harmon & Schafft, 2009). Thus, the educational leaders (superintendents) of each school district within the county being studied, were contacted either by email or phone call, to obtain permission to conduct the research. The purpose of the study and the research procedures were explained to the district leaders. Anonymity and confidentiality of

the district and participants were protected. A formal letter was shared with each educational leader requesting a signature and returned to the researcher. Once the educational leader granted permission, a meeting was set up with the local school district educational leader (superintendent and/or principal) to discuss location and logistics either in person or through Zoom. The educational leaders provided a public campus directory that contains e-mail addresses and/or phone numbers of people who represent the demographic makeup of the community. An Excel spreadsheet and Kutools for Excel were used to randomly select 10 - 25 volunteer participants. Finally, each community member randomly selected was contacted and asked to voluntarily agree to participate.

When samples with the intended qualities are not easily accessible, exponential nondiscriminatory snowball sampling is a rapid and cost-effective sampling approach (Naderifar et al., 2017). Thus, an exponential nondiscriminatory snowball sampling technique was incorporated. As each community member agreed to participate, they were asked to provide one to two referrals for other community members who resided in the county, were over the age of 18, and were able to provide their perspective on rural mental health needs in their community for the study. It was anticipated each new referral would also provide one to two referrals until there were enough subjects for the study. As community members agreed to participate in the Community Needs Assessment (CNA), they were asked to be part of small groups to determine a consensus on rural mental health needs and resources in their area utilizing the Delphi Method. The CNA was conducted in one, three-hour session at each location.

Delphi Method Process and Instrument Protocol

This research employed the Delphi method, which was developed in line with John Dewey's pragmatism-based philosophical beliefs (Dalkey & Helmer, 1963). The Delphi method is an iterative procedure that uses a variety of data collecting and analysis approaches interleaved with feedback to collect and distill anonymous expert judgements. When there is a lack of understanding about a topic or phenomena, the Delphi method works well as a research tool (Skulmoski et al., 2007). The Delphi method is cost-effective, as it can incorporate low-cost questionnaires ranging from open-ended to organized, readily disseminatable among group members via verbal, traditional, or electronic delivery; it is unconcerned about possessing a generally applicable representation, information is obtained from a purposive sample of individuals with some level of knowledge or skill in a certain domain; and it lacks the complex nature of a variety of additional study methods that require specialized education (Skulmoski et al., 2007).

Data Collection Procedures

Data collection took place during a three-hour session at a facility designated by the educational leader of each community. Participants were randomly assigned to one of three groups using a deck of cards (Diamond, Heart, and Club) as they checked into the facility. Participants were also assigned pseudonyms (Participant 1, Participant 2, Participant 3, etc.). The three-hour session was audio recorded to analyze data and write the results of the study. The audio stayed in the researcher’s sole possession, was not shared with anyone, and will be destroyed following university protocol. No photographs of participants in the study were taken.

Data Analysis Procedures

Data collection was comprised of a four-round process as recommended by Sekayi and Kennedy (2017):

- Round one consisted of in-person open-ended brainstorming sessions with individual participants and included the use of open coding to label statements, axial coding to evaluate and categorize statements, and the development of a list of statements.
- Round two consisted of the panel of experts presenting the list of statements to the participants, as well as the participants' narrative comments on the statements, my compilation of adjustments to the statements, and my production of revised and/or new statements.
- Round three included a presentation of the final statements to the expert panel for approval.
- Round four involved forming the standards for the results and the last version of the findings, which contained a list of assertions moderately and/or strongly approved by the participants.

RESULTS

The results confirmed that the need to receive care is often complicated by concerns related to stigma, a lack of privacy while receiving care, mental health staffing deficits, a lack of culturally competent care, expense, and transit (Rural Health Information Hub, 2021). A glaring theme that emerged throughout the Community Needs Assessments in both counties was the concept of mental health stigma and the need for mental health stigma reduction.

Setting

Unfortunately, County A failed to respond to multiple attempts to assist with the coordination for the Community Needs Assessment. Originally, the superintendent signed off to participate and delegated another educator to assist. The leader was contacted by e-mail, office phone, cell phone and text messages on multiple occasions. Timing may have been a factor that contributed to the lack of response by County A. County A is on a year-round school schedule and started its school year in mid-July. Another contributing factor may have been that the educator assigned to the task was new in their position and may have simply been too busy to assist.

The community needs assessment in County B took place in the local high school library. When the researcher arrived, there was an air conditioning problem in that wing of the building. The floors of the rest of the building were being polished and waxed. The only alternative was a small conference room that would not be conducive to the study. Although the temperature was warm in the library, fans were brought in, and the participants seemed comfortable. No mention of the room temperature was made throughout the study.

In the 64 days prior to the Community Needs Assessment in County B, nineteen students and two teachers were fatally shot, and seventeen others were wounded at an elementary school in Texas. The town in which the shooting took place is 190 miles from County B. The perpetrator was identified as an 18-year-old male who was a member of the community in which the tragedy occurred. After the Virginia Tech tragedy in 2007 and the Sandy Hook Elementary School shooting in 2012 (Winter, 2022), this school shooting is the third deadliest in the United States

and the deadliest in Texas (Coronado, 2022). The topic of the shooting came up multiple times during the CNA discussion and may have influenced participants' responses.

Of the participants, eight were from the local school district and two were community members who accompanied district staff members because of the snowball sampling method. Of the 10 community members who participated in the Community Needs Assessment for County B, the demographic makeup included the following:

- Age: (1) 31 – 40; (1) 41 – 50; (7) 51 – 60; and (1) 61 and older.
- Race: (6) Hispanic/Latino; (3) White; and (1) Hispanic/White.
- Ethnicity: (9) Hispanic/Spanish origin; and (1) chose not to answer.
- Marital status: (5) married; (4) single; and (1) chose not to answer.
- Gender: (8) female; and (2) male.
- Highest level of education: (2) high school diploma; (1) associate degree; (2) bachelor's degree; (4) graduate degree or higher; and (1) other - 1 year of vocational school.
- Employment status: (8) full-time; and (2) part-time.
- Occupation: (3) teacher; (1) principal; (1) substitute teacher; (1) secretary; (1) bus driver; (1) educator (undefined); and (2) chose not to answer.

The Community Needs Assessment in County C took place in the local high school Media Commons. At the time of arrival, the researcher was notified that construction and street repavement was taking place in front of the Media Commons and the main entrance to the Media Commons was closed. A sign was posted on the front entrance directing participants to go through the main entrance of the school and enter the Media Commons through the back of the building. The construction and repavement did not seem to impede participation. During the assessment, the room temperature was cold and there was a "squeaking" noise in the background from the air conditioner. A few participants retrieved jackets or blankets. A few participants spoke briefly of the temperature and noise; however, all stayed for the Community Needs Assessment. As mentioned previously, 19 students and two teachers were fatally shot, and 17 others were wounded at an elementary school in Texas. The shooting took place 69 days prior to the Community Needs Assessment in County C. The town in which the shooting took place is 198 miles from County C. There was little discussion of the shooting during the Community Needs Assessment. Additionally, the participants mentioned that a 15-year-old girl from the local high school committed suicide two days prior. Many of the participants stated she "was someone we never would have suspected would take her own life." These two incidences may have influenced participants' responses.

Further, the school district in County C applied for and received the Project AWARE (Advancing Wellness and Resiliency in Education) grant through SAMSHA after a hurricane devastated their community in 2017. AWARE Texas is a five-year effort aimed at promoting community- and school-based student mental health and resilience resources (Texas School Mental Health, 2022). Under a federal grant from the Substance Abuse and Mental Health Services Administration (SAMHSA), the Texas Education Agency (TEA) collaborated with the Texas Health and Human Services Commission (HHSC) and Local Education Agencies (LEAs) to design and implement a program that deploys evidence-based mental health resources in fifteen schools along the Texas Gulf Coast (Texas School Mental Health, 2022). The superintendent stated the district facilities suffered more than $15 million in structural damage and they were trying to meet basic needs for their students, staff and teachers including shelter, food, and clothing.

Of the participants, 10 were employed by the local school district, while eight participants were community members who stated they were there because of "word of mouth." None of the participants brought another community member with them as called for by the snowball sampling method. Of the 18 community members who participated in the Community Needs Assessment for County C, the demographic makeup included the following:

- Age: (1) 21 – 30; (2) 31 – 40; (4) 41 – 50; (9) 51 – 60; (1) 61 and older.; and (1) chose not to answer.
- Race: (1) American Indian/Alaskan Native; (1) Black/African American; (5) Hispanic/Latino; (10) White; and (1) chose not to answer.
- Ethnicity: (5) Hispanic/Spanish origin; and (12) Not Hispanic/ or Spanish origin; (1) chose not to answer.
- Marital status: (11) married; (6) single; and (1) chose not to answer.
- Gender: (16) female; and (2) male.
- Highest level of education: (2) high school diploma; (8) bachelor's degree; (6) graduate degree or higher; and (2) other - (1) GED (General Education Development), (1) some college.
- Employment status: (18) full-time.
- Occupation: (1) educational diagnostician; (1) registered nurse/county secretary; (1) school psychologist; (7) teacher; (4) paraprofessional/ teachers' aide; (1) retired teacher; (3) chose not to answer.

Summary of Results

The Delphi method was used to identify and prioritize the mental health needs of two rural communities (County B and County C) in Texas Public Health Region 11. A summary of the results is listed below:

RQ1 What does mental health mean to you?

- County B stated mental health is "An opportunity within our community to address a negative topic by focusing on de-stigmatization of mental health and the resources needed to address the issues related to the social and psychological process." The group achieved 100% strongly agree consensus.
- County C stated mental health is "A state of being that reflects and ever-changing cognitive and emotion connection." The group achieved 94% strongly agree consensus.

RQ2 What factors impact mental health in your community?

- County B identified stigma, lack of education concerning mental health and resources, and socioeconomic issues as factors that impact mental health in their community. The group achieved 100% strongly agree consensus.
- County C identified socioeconomic status, family dynamics/dysfunction as factors that impact mental health in their community. The group achieved 87% strongly agree consensus.

RQ3 What barriers prevent mental health treatment in your community?

- County B identified stigma, availability of resources, and proactive mindsets as barriers that prevent mental health treatment in their community. The group achieved 87% strongly agree consensus.

- County C identified stigma, accessibility to and availability of resources, and lack of mental health understanding/education. The group achieved 99% strongly agree consensus.

RQ4 What solutions would you suggest that could meet the mental health needs of your community?

- County B suggested positive, proactive mental health education for the community to combat stigma; allocation of funding specifically for local mental health resources; publicizing national anonymous crisis hotlines such as 988; employment of mental health professionals in the community; and changing the community mindset to be proactive rather than reactive to meet the mental health needs of their community. The group achieved 100% strongly agree consensus.
- County C suggested normalizing mental health and reduce stigma through community education, conducting events and activities such as adding mental health to the local health fair, finding local funding for confidential local resources equipped with providers who are not members of the community; establishing partnerships with other communities to bring in services to their community, and establishing a local service such as "child find" to identify and help people in their community experiencing mental health issues to meet the mental health needs of their community experiencing mental health issues to meet the mental health needs of their community. The group achieved 97% strongly agree consensus.

CONCLUSIONS

The purpose for conducting this multisite Delphi study was to identify and prioritize the mental health needs of rural communities in Texas Public Health Region 11. Independent data collection took place in two rural counties in Texas Public Health Region 11 using the Delphi method. The concept of need was a key driver of both content and approach when conducting community needs assessments (Beatty, 1981). The following questions guided the Community Needs Assessments (CNAs) in these two communities:

- RQ1: What is the meaning of mental health?
- RQ2: What are the most prominent factors that impact mental health?
- RQ3: What are the perceived barriers to receiving mental health treatment?
- RQ4: What are suggested solutions that could meet the mental health needs of the rural community?

Definitions of mental health varied and were often associated with negative connotations. Factors that impact mental health in these rural communities include stigma, lack of education about mental health, and socioeconomic issues. Barriers that prevent mental health treatment in these rural communities included stigma, proactive community mindsets, availability of resources, and access to resources. Solutions offered included positive, proactive mental health education for the community to combat stigma; allocation of funding specifically for local mental health resources; publicizing national anonymous crisis hotlines such as 988; employment of mental health professionals and partnerships in the community meet the mental health needs of their community.

Mental health staffing deficits, lack of culturally competent care, expense, and transit issues are extremely important as revealed in this study; however, if people in our communities are not seeking mental health services because of the fear of judgment, solving those issues are futile. If the fear of stigma (shame, judgement, dishonor, humiliation) stands in the way of treatment, no amount of availability and accessibility is going to help. Evidenced from this research was that communities were unique, with their own set of ideologies. The Delphi method gave these community members a voice. Using this same method to go back into these communities so their voices may be heard regarding the reduction of mental health stigma in their communities is recommended. Community members from this study had great ideas including mental health in health fairs, providing platforms to discuss mental health, and normalizing mental health like we do physical health issues. Community voices must not only be heard but listened to. Information gathered should be used to empower communities to implement their ideas so mental health stigma is no longer a concern in our society.

RECOMMENDATIONS

Based on the findings of this study, suggested is this research be a model to address the same research questions to identify and prioritize mental health needs in other rural communities locally, nationally, or globally. Recommendations call for further research on the causes of stigma in rural communities such as cultural, societal, or generational ideologies. Understanding how these variables lead to negative outcomes may be the first step in eliminating stigma. Further research should be conducted to demonstrate effective, evidence-based approaches to combat mental health stigma in rural areas is warranted. As indicated in the results of this study, often a negative association occurs when defining mental health; thus, further research is needed regarding an inclusive definition of mental health. Defining rurality is also problematic. Further research may be warranted to identify a preferable definition of a rural community. Finally, an adequate number of counselors to meet the needs of students from prekindergarten through postsecondary is vital. School counselors must be allowed to counsel without other duties assigned. If a school counselor's primary responsibility were to intervene early and help address the mental health needs of our children, adolescence, and young adults, stigma could be alleviated and many tragedies such as suicide and school shootings can be prevented. Policymakers, school leaders, etc. need to be involved in the effort to reprioritize the purpose of school counselors. School counselor prep needs to be tailored this way across the board, and TEA standards need to establish that expectation. Without that in rule, it cannot be funded or achieved. As is, "mental health" is nowhere in TEA rule for School Counselors. In the Texas Model for Comprehensive School Counseling Programs, it is only mentioned in instances that note mental health services as a resource external to the school.

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