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Occupational Therapy: The Supports and Barriers for Rural Practice

Presented in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Occupational Therapy

Eastern Kentucky University

College of Health Sciences

Department of Occupational Science and Occupational Therapy

Tammy A. Lane MS, OTR/L

2020

**EASTERN KENTUCKY UNIVERSITY
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF OCCUPATIONAL SCIENCE AND OCCUPATIONAL THERAPY**

This project, written by Alison Garcia under direction of Dr. Christine Privott, Faculty Mentor, and approved by members of the project committee, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF OCCUPATIONAL THERAPY

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**EASTERN KENTUCKY UNIVERSITY
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We hereby certify that this Capstone project, submitted by Alison Garcia conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Occupational Therapy degree.

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Executive Summary

Background: The United States population is aging due to advances in healthcare and the aging of the “baby boomers generation” and the rate of aging is set to be the next public health challenge (Quarterman, 2017).

Purpose: To address the unique nature of providing skilled therapy services in rural communities. To gain insight into the recruitment and retention of occupational therapists to rural communities.

Theoretical Framework: The Model of Human Occupation (MOHO) (Kielhofner, 2008) theory explains how occupations motivate participants in their environments supported by habits and roles in which they engage.

Methods: Quantitative design using a descriptive method research approach for understanding the reasons occupational therapists choose to work in rural communities by identifying meaningful concrete relations to describe the original experience (Taylor, 2017).

Results: A total of 151 therapists completed the online survey in full or in part through Google forms. The participants worked in a variety of rural community settings and were well-educated therapists.

Conclusions: The findings of this research gives insight into the unique needs of rural occupational therapy practitioners. Rural practice has been described as a specialty practice requiring a great deal of knowledge on a variety of patient conditions and patient ages.

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Section One: Nature of Project and Problem Identification

Introduction

This research study addressed the unique nature of providing skilled therapy services in a rural setting and the strategies for recruitment and retention of occupational therapists to rural or remote communities. Rural working occupational therapists often work in more than one setting. According to the Health Resources and Services Administration (2017), rural is defined as all population, housing, and territory, not within an urban area. Urban areas are populations of 50,000 or more and urban clusters of 2,500 to less than 50,000 who live in clusters (Health Resources and Services Administration, 2017). The definition of the term rural is not directly defined. The recruitment and retention of rural occupational therapists will be defined as the support and barriers that impact the employment of therapists in rural America. The United States population is aging due to advances in healthcare and the aging of the “baby boomers generation” and the rate of aging is set to be the next public health challenge (Quarterman, 2017), which has resulted in an increased population and a need for skilled occupational therapy services. Individuals living in rural communities may not receive the proper medical attention that is needed to maintain a high quality of life (Johnson et al., 2003). Difficulty recruiting and retaining skilled professionals in rural communities contributes to overall poor health status because of the inability to receive consistent services (Johnson et al., 2003). Over 251 million of the population live in areas considered rural which have limited occupational therapists compared to populated metropolitan areas (Johnson et al., 2003). Karosic (2015, para.6) stated that “there is a significant shortage of occupational therapists working in rural communities in our country.” Studying current research will help to determine supportive insights to working in a rural environment and assist in the recruitment and retention of occupational therapists.

The perspectives of recruitment and retention strategies were reported by Tran et al., (2008), who found that there is a lack of current research on the rehabilitation clinicians' perspective of recruitment and retention strategies. Recruitment and retention are often researched as one and the same, and future research should look at these two elements separately (Tran et al., 2008). Although several aspects of recruitment and retention are viewed as both strategies, such as wages and continuing education, other strategies are not the same. For example, strategies for recruitment also include relocation assistance, rural orientation, and public awareness of rehabilitation careers. Retention strategies include communication between staff and management that is open and timely (Tran et al., 2008). Recruitment and retention strategies will be valued differently by individuals. Research conducted by Hanson et al. (2018), found that fieldwork placement with a rural practitioner impacted the future choice of students to seek employment in a rural setting. It was also found that job satisfaction and lifestyle options were important aspects of recruitment and retention in rural settings (Winn et al., 2014). Lastly, understanding the challenges of rural practice has been shown to influence retention in rural settings (Roots & Li, 2013). The above research studies demonstrate in their own ways the importance of studying rural healthcare and in particular, occupational therapists in this population.

Problem Statement

According to Quarterman (2017), "the unprecedented rate of aging is poised to be the next global public health challenge (p.16)." Occupational therapists are the number one top ten hardest to fill jobs in healthcare in rural settings (My PT Solutions, 2016). According to the American Staffing Association (2015), the skills gap index also identifies occupational therapists as number one in the most difficult jobs to fill. Powell et al. (2008) completed a national study on

the occupational therapy workforce which found a “serious shortage of occupational therapy practitioners at a time when predictions of workforce demands continue to grow” (p.102). The Bureau of Labor Statistics (2019), reports that the workforce of occupational therapists is expected to grow 16% from 2019 through 2029, which is faster than average for other occupations. The need for occupational therapy continues to be important in the treatment of people with illness and disability (Bureau of Labor Statistics, 2019). The problem to be addressed is the unique nature of providing skilled services in a rural setting and the strategies for recruitment and retention of occupational therapists to rural communities. Research can help to determine the supports and barriers to working in rural community environments and potentially assist with future recruitment and retention of occupational therapists.

Purpose of the Project

The purpose of this research project will be to understand the unique nature of providing skilled occupational therapy services in a rural setting and to identify perceived supporting factors. Additionally, the research study will also identify barriers reported by rural practitioners. The findings of this research project can be used to promote the value of rural occupational therapy services. Clients and family members will also benefit from the findings by increasing the recruitment of occupational therapists to rural areas of need.

Project Objectives or Research Questions

The objectives of this research will be to understand the unique needs of practicing occupational therapy in rural or remote communities in America. By using an online survey method, this research study will reach out to current occupational therapists who practice in rural communities. The participants for the study will be voluntary and will be located through their occupational therapy state organization and also through social media. The inclusion criteria will

include being a practicing occupational therapy discipline (i.e. occupational therapist, certified occupational therapy assistant) for a minimum of one-year duration in a rural area (as defined for this project). Questions will be related to the practice of rural therapy supports, barriers, area of practice, and their individual reasons for choosing this practice setting (Appendix A, survey questions). The data collected from rural clinicians will be used to understand their perspective on rural practice as well as identify possible recruitment and retention strategies and will be disseminated to assist with further understanding of this setting.

Theoretical Framework or Scientific Underpinnings

The Model of Human Occupation (MOHO) (Kielhofner, 2008) theory will guide research on the recruitment and retention of occupational therapists in rural America. According to Taylor (2017), MOHO explains how occupations motivate participants in their environments supported by habits and roles in which they engage. This theory assists with an explanation of the motivation occupational therapists have in relation to their chosen setting such as what strategies occupational therapists use that makes a rural practice successful as well as situations to avoid. MOHO theory suggests that volition drives performance of occupation through preference, ability, and sense of importance (Taylor, 2017). Volition is a process of experiences and interpretations and the outcomes of these thoughts and feelings lead to anticipation and occupational choice (Kielhofner, 2008). This research will identify the preferences, abilities, and importance of rural practice through reported perceptions of rural practicing occupational therapists who have been in practice for at least one year. Through the usage of an online survey, the information will be obtained regarding the supports and the barriers for employment in a rural setting.

Significance of the Study

The outcome of this project will be used to educate potential students, community leaders, educators, and potential employers as to the unique needs of the rural clinicians and the strategies for recruitment and retention of rural therapists. The information gained from this research can bring to the forefront the need of rural practitioners and be used in marketing strategies and academic program planning. The research could be used to inform new occupational therapy students on the need in rural settings.

Summary

The research will be used to identify and understand the reasons occupational therapists choose to work in rural communities. The information gained from this research can be used by employers, community leaders, and educators for recruitment and retention purposes as well as informing the profession of the unique needs of rural therapists. Community members will also benefit through the promotion of the value of occupational therapy and recruitment and retention of occupational therapists to rural communities.

Section Two: Abbreviated Review of the Literature

Academic Preparation for Rural Practice

Brockwell et al. (2009), researched and identified work destinations and preparedness for the practice of occupational therapists four years after graduation from James Cook University (JCU), Queensland, Australia. Specifically, Australian workforce statistics show that only nine percent of occupational therapists are working in rural or remote areas. Researchers wanted to understand how educational programs impacted students' choices of work destinations and how ready they were to work in those chosen destinations. Similar research by Hanson et al. (2018), found college experience in rural fieldwork was shown to impact the choice of practice in rural communities. An online survey was completed by occupational therapists in rural North Dakota and Wyoming to learn patterns of college experience on the choice of employment after college. The curriculum at JCU was structured with a focus on rural health issues with topics of rural primary and public care, health promotion for health professionals, management, and organizational skills (Brockwell et al., 2009). Researchers found that fifty-three percent of the graduates' work destinations were in rural healthcare. The participants were the first graduating class of 15 from James Cook University in Queensland and were all occupational therapists working in rural areas. The university curriculum guided them toward rural healthcare and is an important factor in the recruitment and retention of therapists to rural communities (Brockwell et al., 2009).

Hanson et al. (2018) found that rural therapists work more hours a week and spend more time in direct patient care than their urban counterparts. Often rural therapists work in more than one job and travel between sites, which could be one factor accounting for the increased work

hours. It was also noted that by working more hours a week the magnitude of healthcare shortages was not as apparent, however, was associated with therapist burnout (Hanson et al., 2018). A positive correlation between fieldwork experience in a rural area and the choice to practice in a rural community was found, even though the participants in this survey overall were more likely to have had an urban fieldwork experience (Hanson et al., 2018). Findings confirmed the disparity of therapists working in rural settings in North Dakota and Wyoming. The research suggested that there are decreased fieldwork educators in rural areas due in part because of the time constraints which has led to fewer rural placements (Hanson et al., 2018). It was discovered that rural fieldwork educators may need different resources and support to encourage an increase in rural placements for fieldwork students. Academic educators should consider how curriculum impacts students for the challenges of rural practice. Health care employers should consider incentives for supporting rural therapists in the placement of fieldwork students. Incentives such as housing, stipends, and encouraging social connections in the rural community may increase fieldwork availability within rural settings (Hanson et al., 2018).

Wielandt and Taylor (2010), sought to understand the rewards and challenges of rural occupational therapists in Western Canada. Researchers asked if participants were prepared for rural practice after graduating and the usefulness of course work and practical skills learned. A quantitative approach used a self-administered survey which included open and closed-ended questions in an attempt to identify the actual nature of the rural practice. All study participants were female with a median age of 36 years old, of which ninety-five percent lived or had lived in a rural location. This research was very specific on the education content and demographics of the participants (Wielandt & Taylor, 2010). Characteristics of rural practicing occupational therapists who worked in rural Canada were overall highly satisfied with rural practice, which

contraindicates other research on this subject. This study demonstrated a snapshot of the profession under specific conditions (Wielandt & Taylor, 2010). Canada provides extensive telehealth resources, so much that some rural practitioners no longer consider themselves disadvantaged. Researchers demonstrated how information communication can break down barriers of rural practice (Wielandt & Taylor, 2010).

Unique Characteristics of Rural Practicing Therapists

Gallego and et al. (2015), explored the characteristics of allied health professionals who worked in rural Western New South Wales with individuals living with a disability. The allied health professionals included: occupational, physical, and speech therapists. A cross-sectional study was completed online. Forty percent of the participants in this study were occupational therapists. This research outlined the demographics of those who work in rural therapy, specifically with persons having disabilities. The workforce was found to be a higher percentage of females with much experience, married or in de facto relationships, and had lower wages. The participants in this research cited the following reasons for remaining in rural positions: Connection to the community, training in rural healthcare, and being raised in rural communities. This research was limited as this was the first of its kind in the specific area and bias could not be determined. Researchers believed that the evidence showed value for workforce planning as it outlines strategies for recruitment and retention needs of therapists in rural settings and identifies the complexity of rural practice (Gallego et al., 2015).

Collins (2013), believed that there was a need to understand the factors that attract physical therapists to practice in rural Pennsylvania as the aging population continues to increase and there is a shortage of therapists to care for them. Collins (2013) looked at characteristics of

geriatric practicing physical therapists who practiced in skilled nursing facilities; to determine why they choose this setting and remain working in this setting. The study method completed was an electronic survey sent to physical therapists, who were current members of the American Physical Therapy Association and had current email addresses. The overall response rate was seventeen percent which equated to seven hundred and sixty-eight completed surveys, and the researcher noted that this was typical for computer-based surveys. Participants of the study most valued the ability to have control over their schedule and having benefits as to why they continued to work in a rural geriatric setting. This research found that recruitment strategies are unique to professional experience. Therapists took pride in their work, liked the continuity of care, and establishing relationships with patients and their families. The researcher stated future research should focus on these reasons why therapists choose to stay in rural practice (Collins, 2013).

Supports and Barriers to Practice

Rafeedie et al. (2018), wanted to ensure that older adults living in skilled nursing facilities are receiving quality and effective services. Occupational therapists should be the driving force to assist in changing the culture in skilled nursing facilities. Occupational therapists should provide meaningful interventions to support the overall health of clients. Researchers used statistics provided by the Centers for Medicare Services (CMS) of reported billing codes other than self-care. It was found that occupational therapists need to be more proactive in identifying, implementing, documenting, and measuring the distinct value of occupational therapy services to demonstrate relevance to CMS and third-party payors. These researchers proposed that occupational therapy's scope of practice, when fully utilized and implemented, can

be the solution for challenges in the skilled nursing setting (Rafeedie et al., 2018). This research article is specific to occupational therapy and skilled nursing setting; however, it did not distinguish between rural and urban. The distinct value of occupational therapy and the challenges that therapists face daily was discussed.

The qualitative research of Root et al.'s (2014) qualitative research addressed the challenges of occupational and physical therapists providing health care to rural residents in British Columbia. The participants completed a questionnaire and were asked to describe the skills and knowledge they perceived as unique to rural practice. It was found that the practice of occupational and physical therapy was defined by the geographical distance and health of their patients, both of which created complex barriers. The participants went on to describe rural therapy as a specialty in that the therapist has a great deal of diversity with patients and disabilities. This research is limited by having only one researcher and small sample size; it did, however, cover fifteen rural communities. Even though the sample size was small, findings show the diversity and unique needs of rural practice which could impact the recruitment and retention of therapists to rural communities (Roots et al., 2014).

The distinct value of occupational therapy to understand strategies for recruitment and retention of rehabilitation professionals in Ontario, Canada has been explored (Tran et al., 2008). A literature review was conducted by two expert panels, regarding recruitment and retention as well as education. Researchers used a modified Delphi process to gain consensus to rate the identified strategies along the two dimensions. The review was completed electronically as well as through a meeting in person (Tran et al., 2008). The authors identified thirty-four strategies that should be considered as important and feasible when planning for health human resources (HHR). The significant finding demonstrates that HHR used grey literature and was not

developed for rehabilitation professionals (Tran et al., 2008). The themes that emerged and should be considered as focus areas for recruitment and retention of professionals include the following: quality of work-life, work environment, financial incentives, and marketing and professional development. Findings also demonstrated the importance of increasing public awareness of rehabilitation careers, providing rural and remote orientation packages, and relocation programs (Tran et al., 2008).

The purpose of research completed by Taylor and Lee (2005), was to examine the use of information and communication technology (ICT) by rural occupational therapists in Western Australia and the connection of recruitment and retention. They used surveys to determine access, support, and literacy in the use of ICT as a communication tool. Researchers stated the barriers that were identified for recruitment and retention of rural therapists as professional and social isolation and lack of educational resources (Taylor & Lee, 2005). Other factors cited as a reason therapists choose to work in rural Australia was having a rural background, having a spouse with a rural background, undergraduate education, and placement in fieldwork. Barriers for retention were lack of professional development, lack of recognition, poor wages, lack of managerial support, and feelings of homesickness which lead to higher turnover rates (Taylor & Lee, 2005). The information gathered was analyzed through descriptive statistics. Findings suggest that there is a greater correlation of satisfaction with the increased use of ICT. Rural therapists used ICT more than urban therapists. Rural therapists reported feeling less isolated socially and professionally when using these tools. However, a small percentage lack computer hardware, proper training, and had inadequate skills in researching resources on a professional level (Taylor & Lee, 2005).

Conclusion

An attempt was made to use articles that demonstrated a variety of strategies, in order to understand the complex nature of rural therapists and rural practice. Much of the research found related to rural occupational therapy practice has been completed in countries other than the United States. More up-to-date research is needed in order to attempt to understand the needs of rural practitioners in the United States. Current research available has more reporting of female therapists' percentages. The male rural practicing therapist perspective should be included in research in order to determine their specific barriers and supports. Understanding the perspectives of therapists as applied to recruitment and retention needs would potentially lend to better marketing, job satisfaction, quality of life for patients, as well as direct educators in the future to address the unique challenges and diversity that rural therapists face. This research also demonstrates the need of giving rural practitioners the tools that they need to do their jobs effectively. Evidence demonstrated higher satisfaction when therapists felt professionally and socially connected to their communities and when they had managerial support. Having had previous connections to rural communities through the education process or personally appears to also influence therapists to seek rural employment. Continued commitment demonstrating the value of occupational therapy and how it impacts the overall quality of life is important. The provision of occupation-based evaluations, treatments, and education can address the complex, diverse challenges that rural therapists experience. This along with increasing education on the nature of rural therapy as a specialty could lessen the global shortage of practitioners in rural remote communities.

Section Three: Methods

Project Design

Quantitative design using a descriptive method research approach for understanding the reasons occupational therapists choose to work in rural communities was used to identify meaningful concrete relations to describe the original experience (Taylor, 2017). The researcher wanted to learn what strategies occupational therapists use to make a rural practice successful as well as barriers experienced. Creswell and Creswell (2018), reported that survey research provides a quantitative description of trends, attitudes, or opinions of the study sample with the intent to generalize to a population. Creswell and Creswell (2018), suggested that quantitative research can be used to explain a relationship between variables to test or verify theories. The deliberate, purposeful selection of occupational therapists who were members of the Wyoming Occupational Therapy Association or members of professional media sites was implemented. The criteria required that the therapists had worked in rural practice for at least one year. This is to ensure experience in rural healthcare. The survey research inquired about the personal experiences through the person, place, time, and setting to gain knowledge of the participants' experiences. The strategy of self-administered surveys using Google Forms was utilized to gather data in a non-threatening manner in an attempt to receive honest answers (Taylor, 2017). A quantitative design was used to determine the support and barriers experienced by occupational therapists working in rural communities.

Setting

The setting was rural communities in which occupational therapists work with many working in more than one setting. According to the Health Resources and Services Administration (2017), rural is defined as all of the population, housing, and territory, not within an urban area. Urban areas are a population of 50,000 or more and urban clusters of 2,500 to less than 50,000 who live in clusters (Health Resources & Services Administration, 2017). Rural Americans are experiencing a serious change in the provision of healthcare services and many go without care or receive subpar care. There is a substantial and growing need for health care services in rural communities and there is a shortage of available providers (National Conference of State Legislators, 2018). Rural communities are hit harder by these shortages. Karosic (2015), found that there is a significant shortage of occupational therapists working in rural communities in the United States.

Identification of Participants

Participants were purposefully identified as members of state associations or members of professional occupational therapy social media sites, including occupational therapists and occupational therapy assistants who are working in rural communities (as defined for this study) for at least one year full time. The criteria for one year was chosen in order to understand why the therapist had chosen to work and stay in the rural community setting over an extended period of time.

Data Collection Methods

The researcher completed an Institutional Review Board (IRB) application and the study was approved through Eastern Kentucky University (EKU) in September 2020. The quantitative research design will be used to examine the perceived supports and barriers occupational therapists experience in a rural setting to identify patterns that impact recruitment and retention efforts in rural communities (Taylor et al., 2017). Occupational therapists were recruited from rural communities with the inclusion criteria of having worked in that setting for at least one year. The electronic survey link asking for voluntary participation was emailed to members of the Wyoming Occupational Therapy Association. The link was also shared on the online professional site CommunOT and Occupational Therapy Colleagues of Kentucky. The survey includes an acknowledgment of informed consent to participate in the research. Participants completed a self-administered anonymous survey through the use of Google Forms online. The online survey was easily accessible with a direct link to reach more participants. The weaknesses of this strategy were the inability to ask follow-up questions. Another weakness is that other rural communities in America were not represented in this research. Structured questions were used to elicit self-reported information of rural occupational therapists. Participants were given the opportunity to follow-up with the researcher at their discretion through email for a period of six months.

Instrument

The survey was created to collect data regarding the experienced supports and barriers of therapists in rural practice. The survey instrument consisted of sixteen multiple-choice questions with the first question being the consent for participation. The survey was reviewed and revised

for content by the researcher and capstone committee members. Eight of the questions had the option for write-in answers and the participants were encouraged to choose all answers that applied to their situation. (Appendix A)

Data Analysis

Data was analyzed using descriptive statistics through the analysis features of Google Forms to determine the frequency and percentage of responses for each question. Data was entered into an excel spreadsheet for further analysis. Participants that did not meet the inclusion criteria were eliminated from the final analysis. Charts and graphs were then created from the data for visual representation of responses from each survey item.

Validity/Reliability

Taylor et al. (2017), define validity as the degree to which the research represents truthfulness of the findings and reliability reflects the extent to which a measure is free from error. The survey was developed based on a review of previous literature on the subject. An expert review was completed by the capstone committee to further increase the face and content validity of the survey. Structured survey questions were used to reduce the bias potential of the researcher to prevent inferring personal thoughts on the answers given, as well as to present the questions clearly and ensure they would be interpreted similarly across participants. Data was entered by participants online to decrease the bias of the researcher. The selection of participants was completed with the criteria of having worked at least one full year in a rural setting. This criteria ensured that participants had experience in rural health care practice and could provide their personal experiences. The data analysis was clearly written later in this document to explain

the research process in detail to the reader. Limitations of this research are also clearly presented later in this document to fully inform the reader.

Ethical Considerations

Participants were fully informed regarding the research and how their information would be used in order for the participants to give their consent to participate in the research questionnaire (Creswell & Creswell, 2018). Participant names were not used to maintain anonymity and reduce invasion of privacy. The surveys were completed online by participants and given a timestamp and number as they were received. The survey questionnaires included structured questions to reduce the chance of bias on the part of the researcher. The information provided by participants was recorded in frequency and percentage values. It is possible that survey questions could trigger emotional feelings, although questions did not include sensitive information, and participants were provided information to follow up with researchers at their discretion. Support and barrier experiences offer learning opportunities both positive and negative. The personal experiences can offer insight for the future recruitment and retention of rural therapists. Strategies to utilize and strategies to avoid can lessen the burden with recruitment and retention of therapists to rural areas.

Timeline

1. Problem Identification - June 2019
2. Literature Review - June 2019
3. The survey developed - August 2019
4. IRB submission - August 2020

5. Recruitment email - September 15, 2020
6. A follow-up email - September 23, 2020
7. Data Collection (2 weeks) September 15 - September 23, 2020
8. Data Analysis - September 23, 2020 - October 14, 2020
9. Finalization of Capstone data November 04, 2020
10. Presentation of Capstone - November 23, 2020

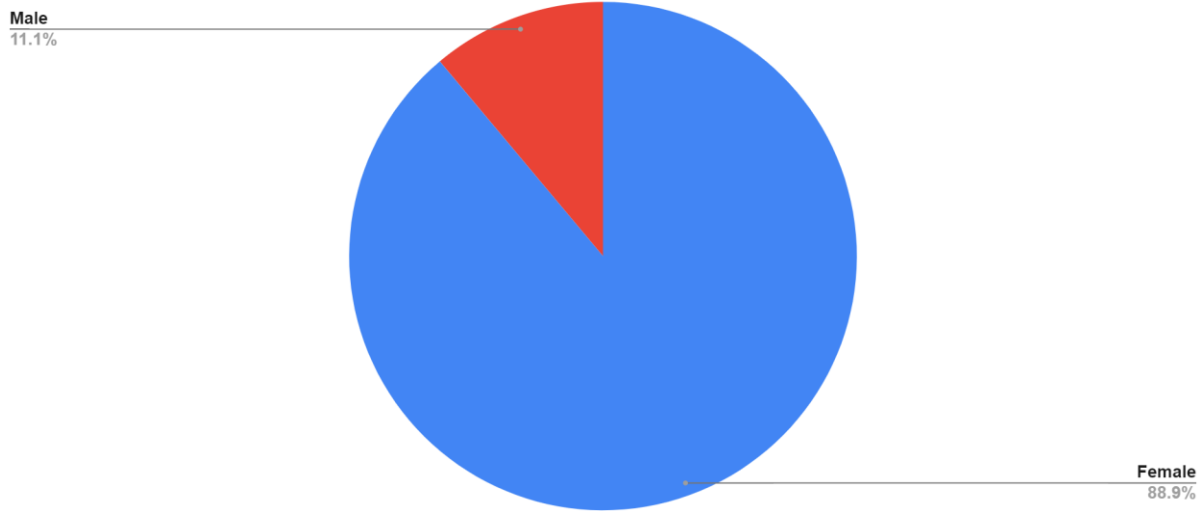
Section Four: Results and Discussion

Participant Response and Demographics

A total of 151 therapists completed the online survey in full or in part through Google forms. However, 21 of the responding therapists reported that they do not work in rural community healthcare and were excluded from the data analyses. There were also three survey participants that completed the survey twice, and the duplicate surveys were eliminated from the results. One survey participant only worked in rural healthcare for six months; the criteria for participation was at least one year working in rural healthcare therefore these results were eliminated. 126 survey results are included in the quantitative data analysis. The participants that completed the survey were 112 (88.9 %) female and 14 (11.1%) male (see Table 1). These survey results align with the U.S. Bureau of labor statistics (2019), which reported the number of employed therapists to be 88% female and 12 % male based on the most recent survey. The survey was completed by 47 participants during the first 24 hours that the link was shared. During the first round of recruitment 72 responses to the survey were received and with the second recruitment email, 151 responses were received. Responses were collected for two consecutive weeks.

Figure 1: Gender

Gender (Table 1)



Credentials and Education

Of the 126 therapists responding: 103 (81.7%) were occupational therapists registered and licensed (OTR/L), 18 (14.3%) were certified occupational therapy assistants (COTA), 5 (4%) were occupational therapist licensed (OT/L) and no occupational therapy assistants (OTA) completed the survey (see Table 2). All 14 male therapists are credentialed as OTR/L. The responding therapists are well educated with 70 (55.6%) holding a master's degree, 13 (8.7%) holding an associate degree, 13 (10.3%) holding a doctorate degree, 28 (22.2%) holding a bachelor's degree, and four other therapists reported the following: holding two Master's degrees (1; .8%), a master in gerontology (1; .8%), (1; 8%) reported being a foreign-trained therapist and

one held a Ph.D. degree (.8%), (see Table 3). Further, quantitative data analyses revealed 7 of the COTAs held an advanced bachelor's degree.

Figure 2: Credentials

Credentials (Table 2)

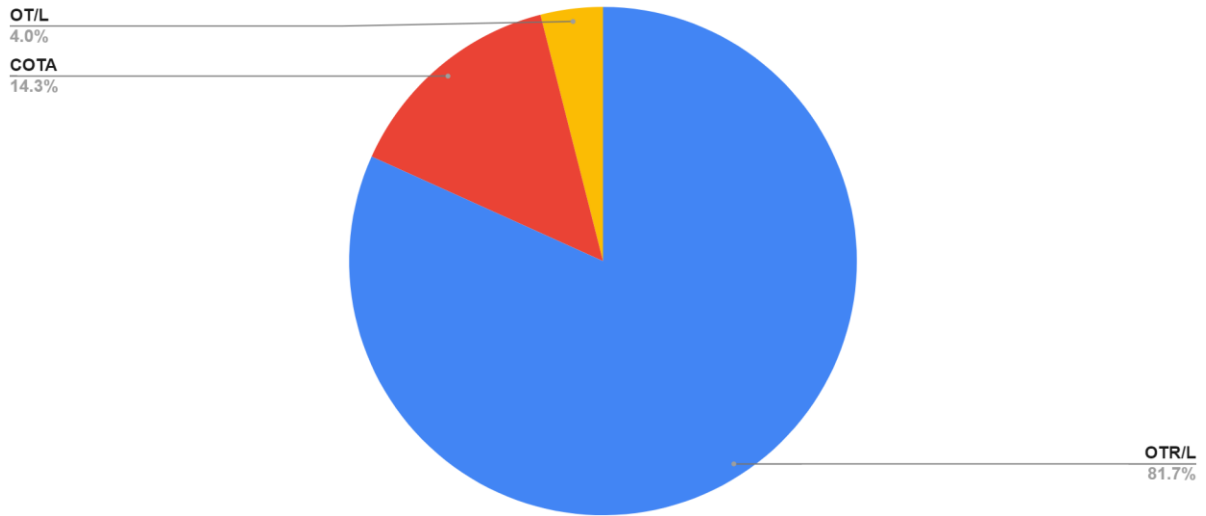
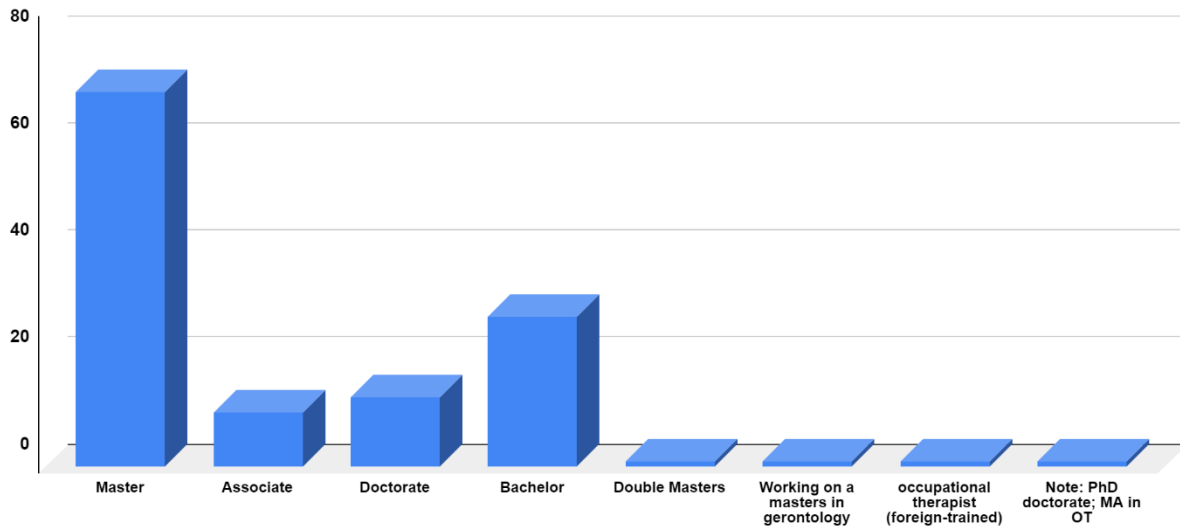


Figure 3: Degree Level

Degree Level (Table 3)



Rural Employment Setting and Positions

43 of the 126 therapists indicated that they work in more than one setting. These locations with highest to lowest rural employment are: school (42; 21.2%), outpatient clinic (41; 20.7%), skilled nursing facilities (34; 17.2%), hospitals (34; 17.2%), private practice (23; 11.6%), home health (22; 11.6%), and early intervention (1; .05%) (see Table 4). Out of the majority of the therapists, 76 (62.3%) reported working one full-time position and 12 (9.8%) reported working one part-time position. However, 34 (27.9%) therapists reported working in more than one position as follows: 19 (15.6%) one full time and one PRN, 9 (7.4%) two or more part-time positions, and 6 (4.9%) multiple PRN positions. There were 4 survey participants that did not answer this question (see Table 5). Furthermore, (78%) of the survey respondents stated that they work full-time hours of 32 or more hours a week. The remaining therapists (15.4%) work part-time hours of 32 or less and (6.5%) PRN hours (see Table 6).

Figure 4: Setting

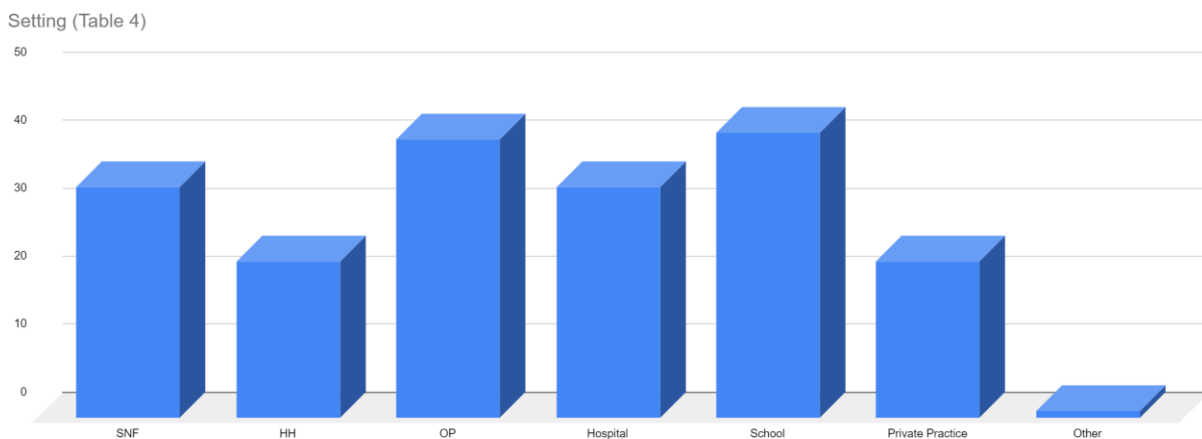


Figure 5: Number Positions

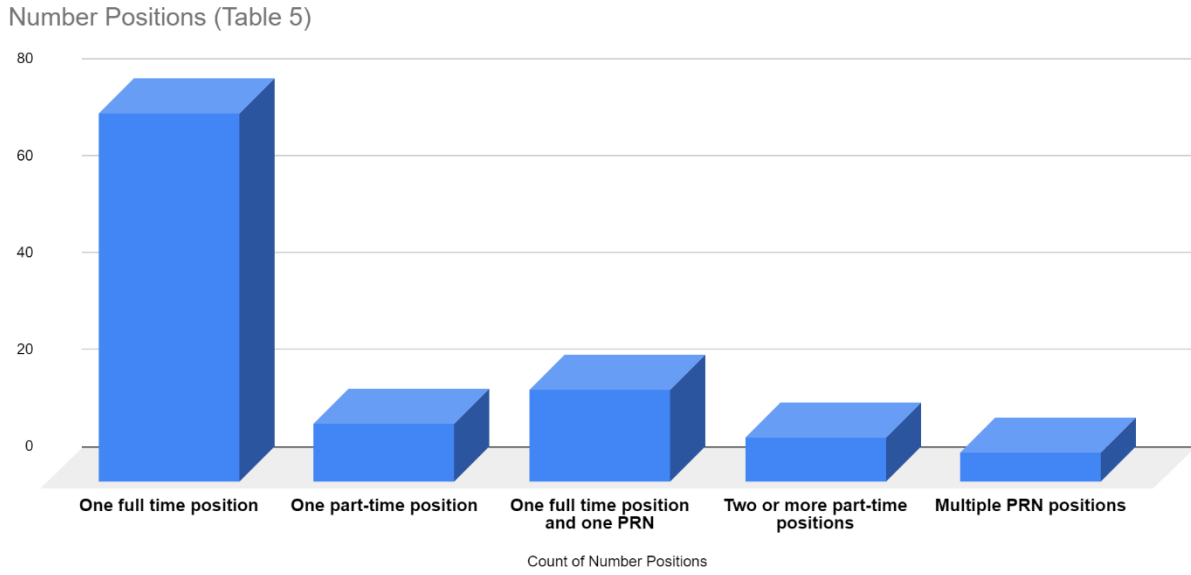
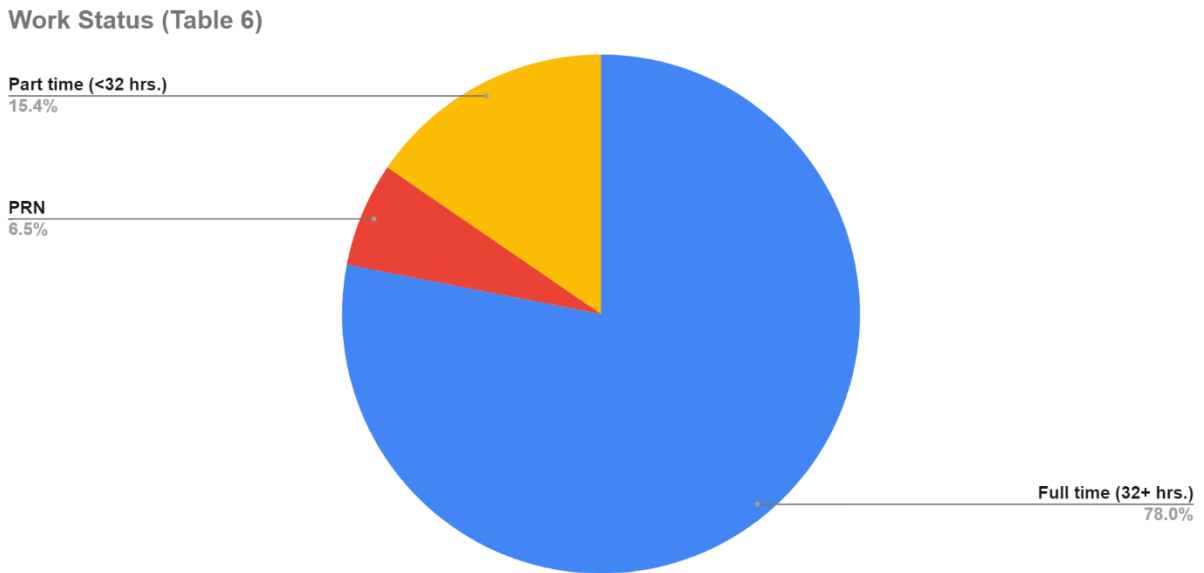


Figure 6: Work Status



Choice of Rural Setting

The number one reason that 74 (59.2%) of reporting therapists chose to work in rural America is that their families already live in rural communities. The next top reason was job availability (16; 12.8%), followed by being close to children's school (14; 11.2%). Income earned (12; 9.6%) and flexibility of days and work hours (8; 6.4%) were also reported (see Table 7). Interestingly, only one therapist chose to work in rural America following having experience as a student therapist. The participating therapists have a great deal of experience working in rural America; 84 (67.2%) have worked five or more years in rural America (see Table 8).

Figure 7: Choice of Rural

Choice of Rural (Table 7)

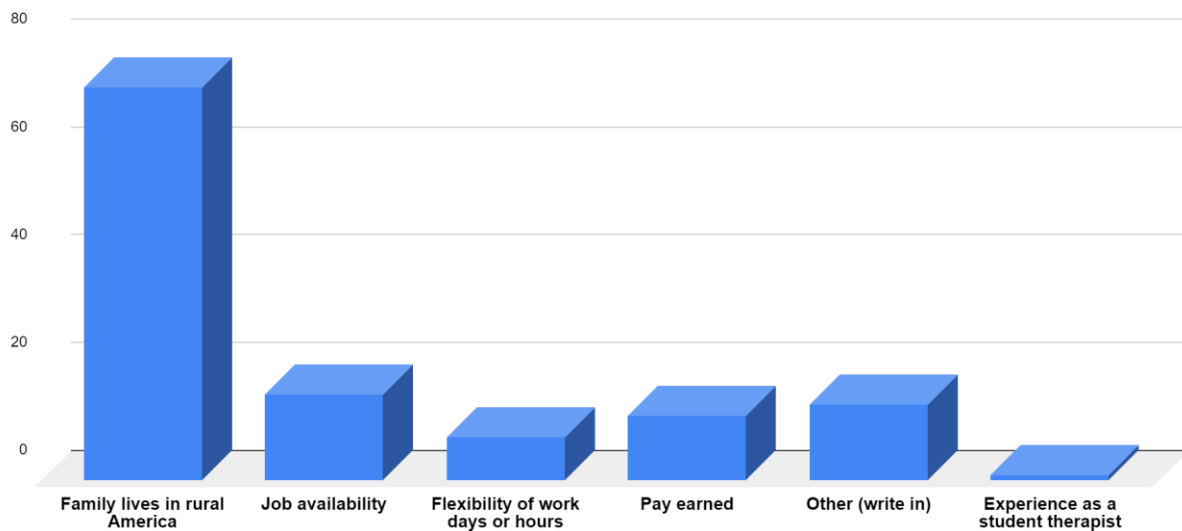
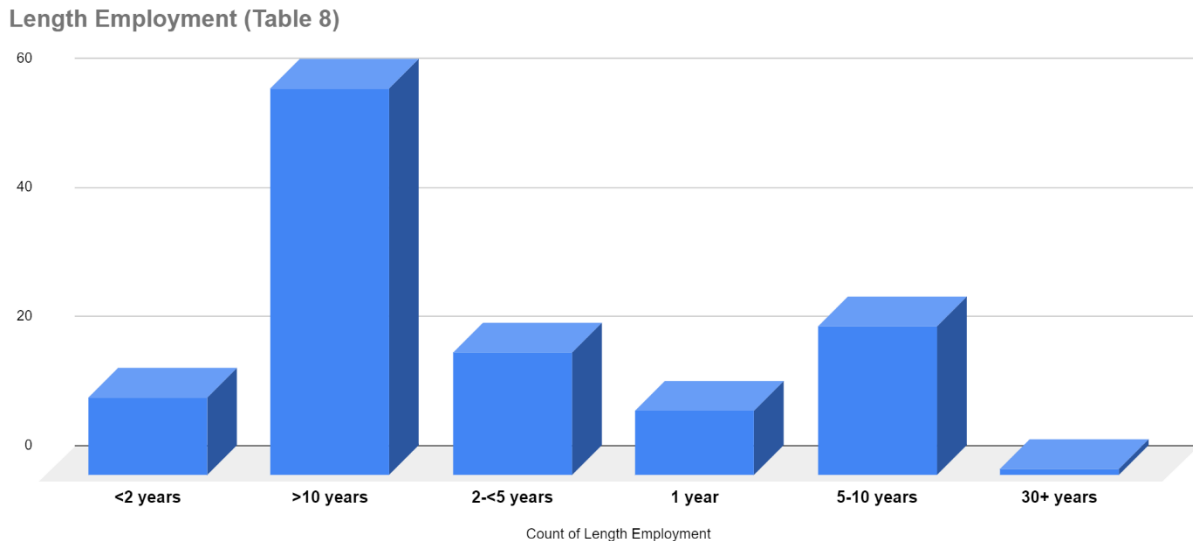


Figure 8: Length of Employment



Supports for Rural Practice

88 (38.1%) therapists report having an allowance for continuing education from their employers. Another 57 (24.7%) also received onsite education. 56 (24.2%) receive mentoring from their company which may include a therapist in a different location. 20 (8.7%) of the participants reported that they did not receive any support from their employers. 10 (4.3%) stated they received support from informative social media groups. All of the therapists reported at least two support's from employers (see Table 9). Even though 88 (62%) of these therapists reported that they receive education benefits from their employer; 64 (51.2%) have no plans to further their education. 33 (26.4%) have plans to pursue a specialty certification and another 16 (12.8%) have plans to advance their current degrees. Another 12 (9.6%) have other plans for education outside of occupational therapy (see Table 10).

Figure 9: Support from Employer

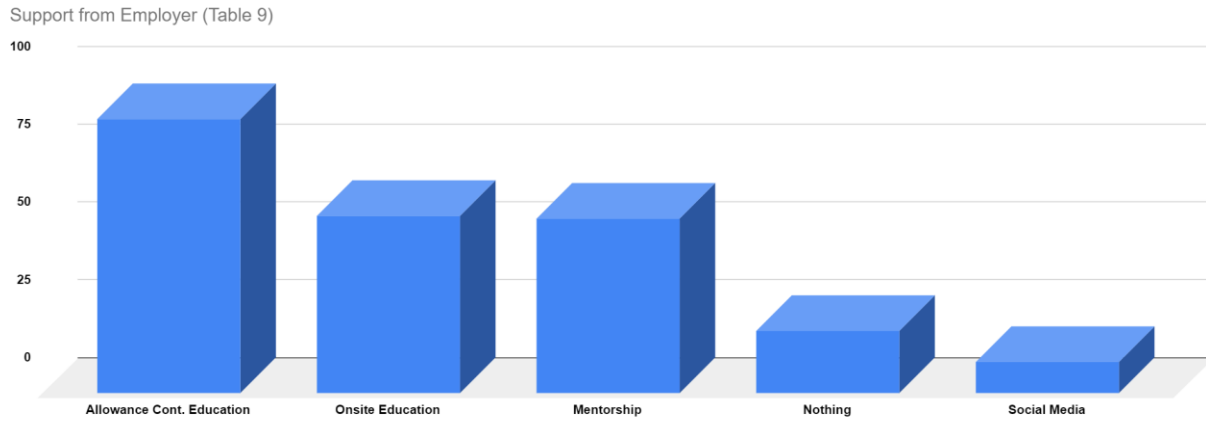
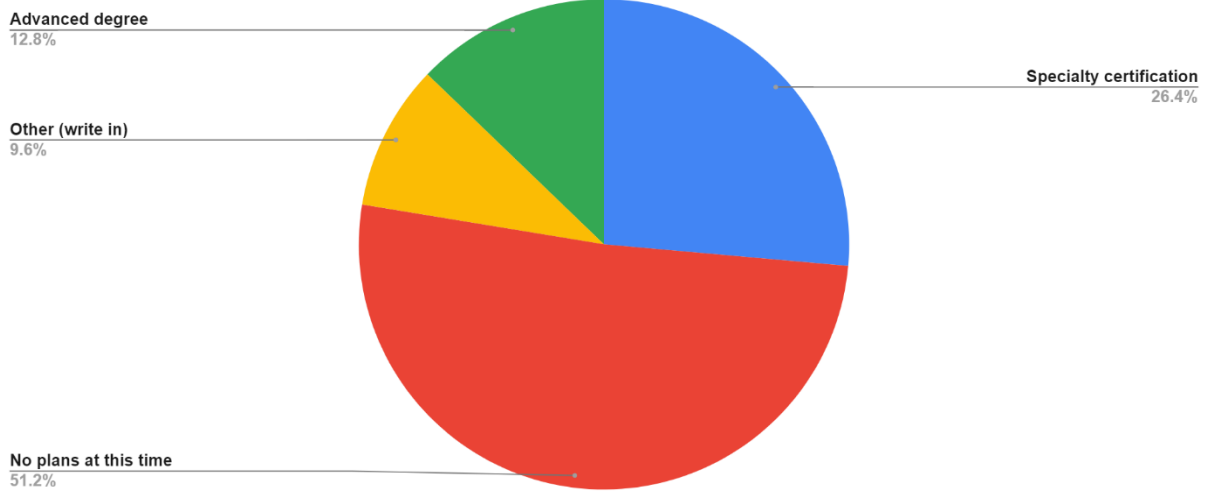


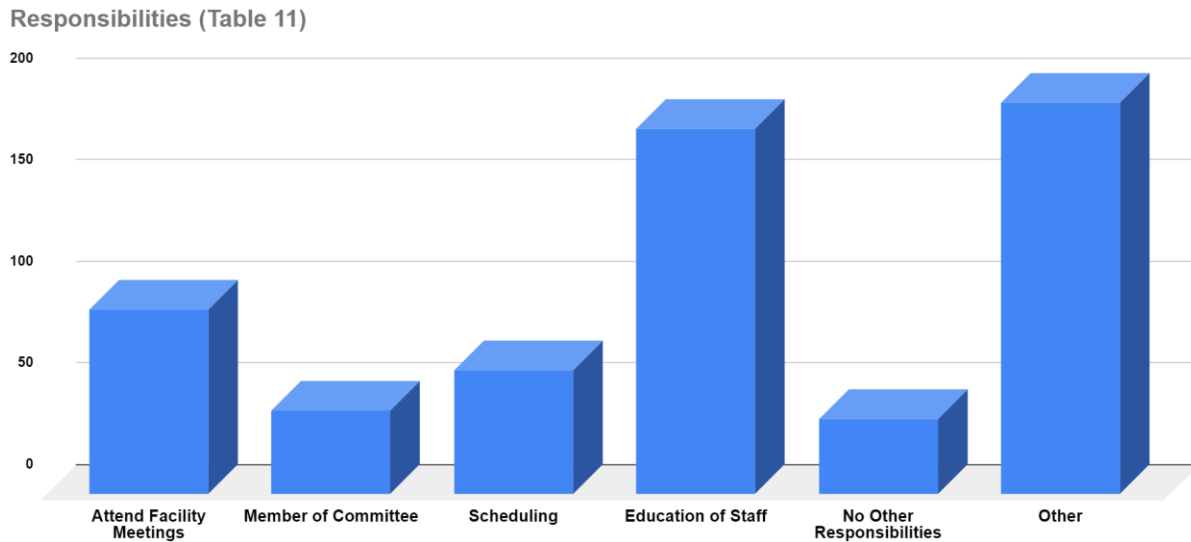
Figure 10: Education Plans

Education Plans (Table 10)



The therapists that participated in this survey have a variety of other responsibilities in addition to providing therapy. Out of the 126 participants, 89 (32%) reported having other responsibilities with a total of 193 additional responsibilities identified across therapists such as: attending school/staff meetings, participating in IEP meetings, being director of rehab, and attending parent education conferences. 37 (6.1%) participants reported that they do not have any other responsibilities other than providing therapy.

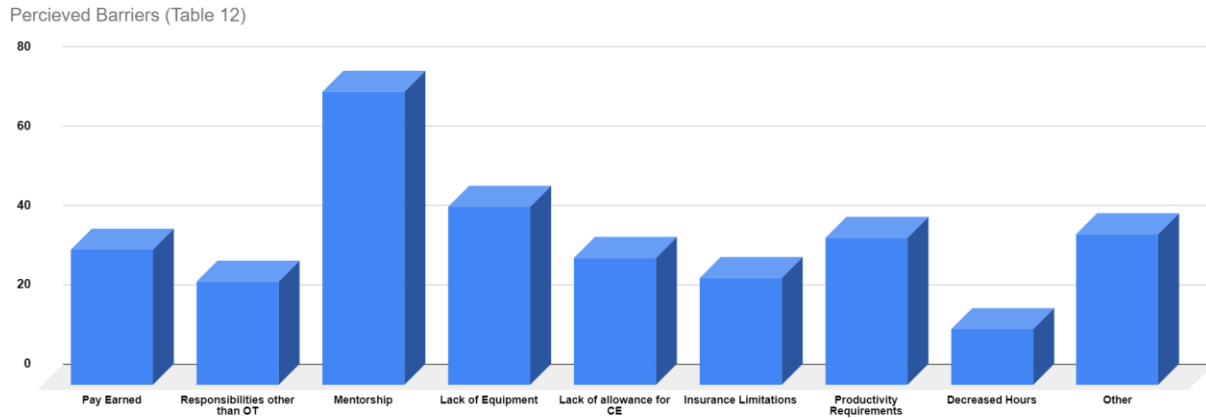
Figure 11: Responsibilities



Perceived Supports and Barriers

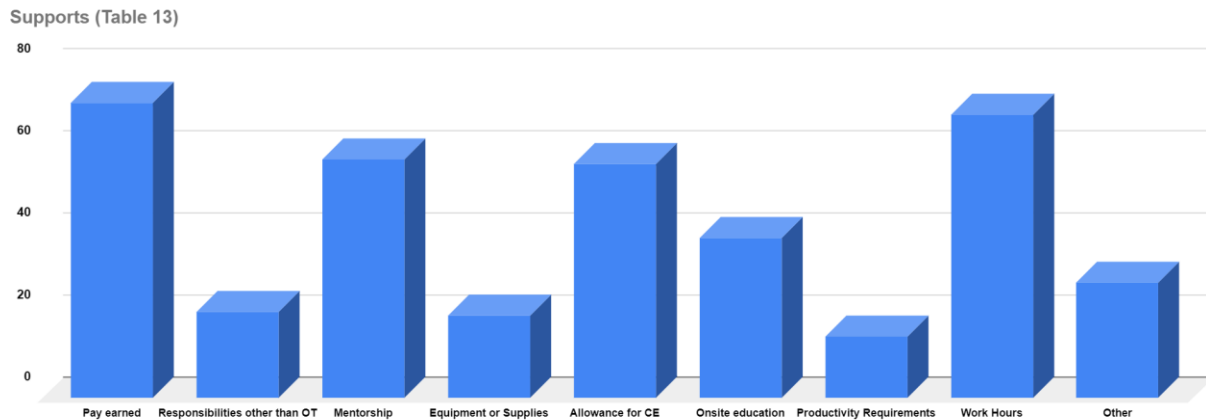
The top perceived barriers to rural practice reported by the therapists included: mentorship (74; 22.6%), lack of equipment (45; 13.8%), other (38; 11.6%) and productivity requirements (37; 11.3%). The therapists that chose “other” as a barrier did not write in the description. Further barriers reported were pay earned (34; 10.4%), lack of allowance for continuing education (32; 9.8%), insurance limitations (27; 8.3%), responsibilities other than OT (26; 8%), and decreased hours (8; 4.2%). (see Table 12).

Figure 12: Perceived Barriers



The top perceived supports to rural practice reported by the therapists included: pay earned (72; 19.0%), work hours (69; 18.2%), mentorship (58; 15.3%), and allowance for continuing education (58; 15.2%). Additional perceived supports to rural practice that were reported: onsite education (39; 10.3%), other (28; 7.4%), responsibilities other than OT (21; 5.5%), having needed equipment or supplies (20; 5.3%), and productive requirements (8; 3.8%). (see Table 13). Lack of mentorship was a perceived barrier by 74 (22.6%) therapists and perceived as a support by 58 (15.3%) reporting therapists. Having responsibilities other than OT however with low percentages appears to be a barrier (26; 8%) as well as a support (21; 5.5%).

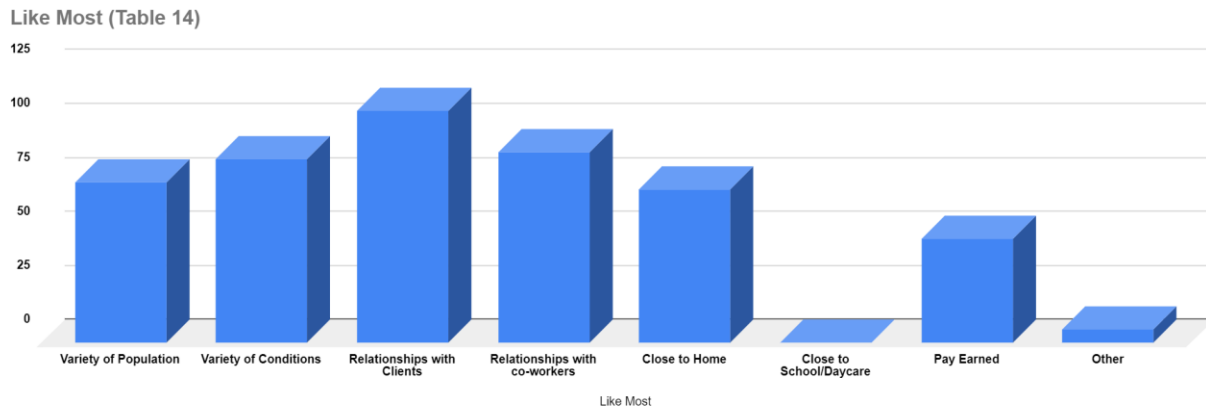
Figure 13: Supports



Likes and Dislikes of Working in Rural Communities

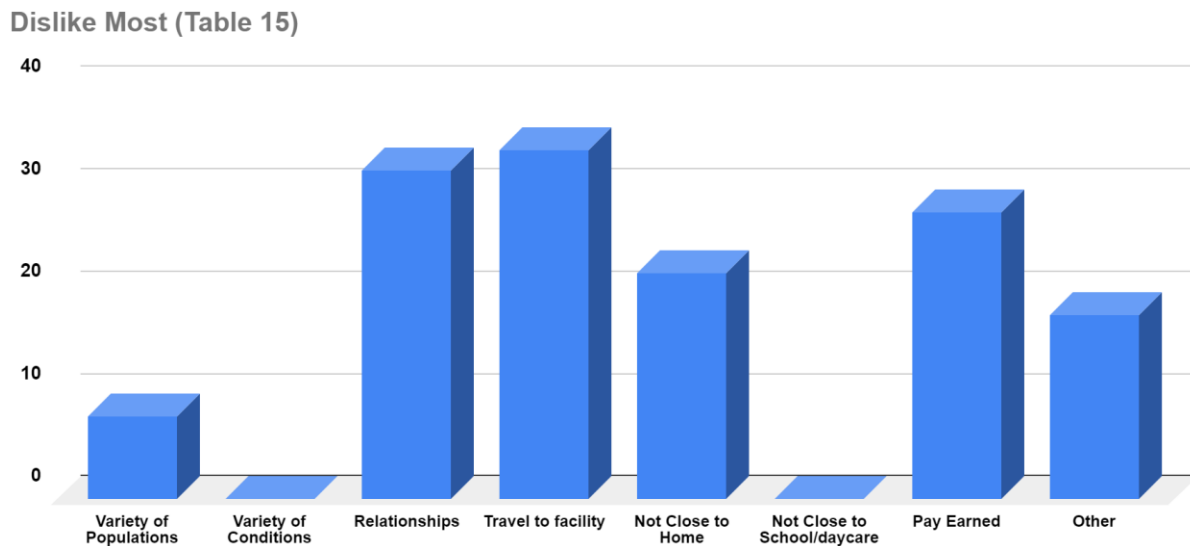
The top likes of working in rural communities were the relationships therapists built with their clients and client families (107; 22.3%). Followed by relationships with their co-workers (88; 18.1%), the variety of conditions treated (85; 17.7%), and the variety of the population served (74; 15.4%). This appears to correlate with the desire for education that these therapists reported. 48 (10.0) therapists reported satisfaction with the pay earned and 71 (14.8%) reported satisfaction with their jobs being close to their home (see Table 14).

Figure 14: Most Liked



The top dislikes for responding therapists were having to travel a long distance to the facility (34; 23.9%), patient confidentiality concerns with questions regarding patients/clients being treated (32; 22.9%), and lower pay earned (28; 19.7%). This was followed by worksite not being close to home (22; 15.5%), other (18; 12.7%) which included not having student loan forgiveness or access to CEU's, and the variety of population (8; 5.6%). No one chose that having a variety of conditions to treat or being close to school and/or daycare as a dislike. It appears that the therapists who took this survey do not dislike the challenge of having a variety of conditions to treat. (see Table 15).

Figure 15: Most Disliked



Additional Comments Provided by Participants

Additional information was emailed to the researcher from a few participants for the open-ended choice options on the survey. One therapist added that small-town rural living suited their lifestyle and they liked having a job available close to home. This therapist also mentioned that the barriers for rural therapists included that their facility would not assist with receiving underserved area student loan forgiveness. They also had limited access to in-person continuing education, which the employer would not reimburse. Another therapist mentioned that they were uncomfortable with the fact that the community members knew so much about the patients/clients being treated and would openly ask questions about them in public places.

Discussion

Supports and Barriers for Rural Practice

This research found that therapists perceived having benefits of mentorship, access to continuing education, and pay earned as a support to rural practice. Research that was completed in British Columbia found that support from management was also an important factor in the recruitment and retention of therapists in rural Canada (Roots & Li, 2013). Geographic distance to patients, such as travel between facilities and distance to patient homes has previously been considered a barrier to practice (Roots et al., 2014). The present research study had similar findings, as the participants disliked having to travel long distances to or between facilities as well as long distances between patient homes. This will be an important factor to consider when recruiting occupational therapists to rural communities. It appears that in rural practice financial incentives can be both a support and a barrier. In this research, pay earned was described as both; 48 participants reported they felt they received higher pay due to their rural location, and 28 reported their pay as a barrier to rural practice. Tran et. al. (2008), found a focus on financial incentives as a support for the recruitment and retention of therapists to rural communities.

Demographics of Occupational Therapy Practitioners

The participants that completed this survey included 112 (88.9%) female practitioners and 14 (11.1%) male practitioners. Another study in rural Western Canada completed a similar survey for recruitment and retention of occupational therapists and all of the participants were female (Gallego et al., 2015). Gallego et. al. (2015) further stated that the workforce in rural Western Canada was found to include a majority of females who had many years of practice experience. The present research also found that 60 of the 126 participants had been in practice

for over 10 years, 23 were in practice for 5 to 10 years, and one therapist had over 30 years of experience. The results of this survey also align with the statistics from the US Bureau of Labor Statistics (2019), which reported on average the number of employed therapists in the United States was 88% female and 12%, male.

Influence of Fieldwork on Practice Setting Choice

Previous research on the influence of clinical education for student therapists to practice in a rural setting was identified as important. Students who did not have a rural placement during clinical education reported that they did not feel prepared to work in a rural environment (Roots & Li, 2013). Even though only one therapist out of 126 in this survey chose this setting based on clinical education, it may be beneficial for schools to include rural fieldwork to expose students to the needs in rural America based on previous research. Brockwell et al. (2009) identified work destinations and preparedness for rural practice of students whose curriculum was structured with a focus on rural health issues such as health promotion, management, and organizational skills. They found that over half (53%) of the graduates' work destinations were in rural healthcare and felt that the curriculum guided them towards these settings (Brockwell et al., 2009).

Roles of Occupational Therapy in Different Settings

There were 89 therapists that participated in this survey who reported they had a variety of other responsibilities other than providing direct therapy services. They reported participating in committees, meetings, and providing education to other disciplines in their settings. Roots et al. (2014) research found that therapists in British Columbia described rural practice as a specialty and therapists have a great deal of diversity in their work duties. According to the

Health Resources and Services Administration (2017), Rural working occupational therapists often work in more than one setting. Rural therapists experience extensive travel to meet the needs of rural communities in Nebraska (Peterson, Ramm & Ruzicka, 2003). Therapists reported travel three to five days, with travel exceeding 100 miles round trip per week. It was also necessary to provide care to a diverse number of diagnoses and it was felt that rural therapists must have a broad knowledge base to provide quality services in the rural setting (Peterson, Ramm & Ruzicka, 2003). Between the challenges of a variety of practice settings and the variety of diagnoses, rural therapists have stated that they are a “jack of all trades” (Peterson, Ramm & Ruzicka, 2003, p. 59). Therapists often found it necessary to provide education to the public and the medical community on the skilled services that occupational therapists provide which also added to their list of responsibilities (Peterson, Ramm & Ruzicka, 2003). The present research finding correlates to the variety of settings reported as well as the education of other staff members being a large part of everyday responsibilities.

Unique Characteristics of Rural Practicing Therapists

Complex needs of rural practicing therapists were identified in the research conducted by Gallego et al. (2015). The participants in their study found therapists chose to stay in rural practice because of connection to the community, training in rural healthcare and being raised in rural communities. Similarly, in the present study, the research found that participants enjoyed small-town living, the lifestyle of a rural community, connection with their patients/families, and job availability close to their home. Collins (2013) also found that rural therapists took pride in their work, liked the continuity of care, and established relationships with their patients and families. This research implies a strong connection to community and community members as being a unique aspect of rural occupational therapy practice.

Limitations

A limitation of online surveys is a low number of participants responding to requests for participation in surveys. Hanson et al. (2018) conducted an online survey regarding rural practice patterns and noted the participation response rate to be 19.6%. Lindemann (2019) reported online survey participation is 29%. There appears to be some variability in response rates which can be enhanced by incentives. Cho, Johnson and VanGeest (2013), found that response rates of health care professionals can be improved using strategies such as personalized contact, multiple follow-up requests, and monetary incentives. Petrovic, Petric, and Manfreda (2015), looked at the elements of the email invitation to enhance the response rate of online surveys. Of the three elements researched, they found that a plea for help resulted in an increased rate of responses (Petrovic, Petric, and Manfreda, 2015) The response rate for this survey cannot be calculated as it is not possible to know how many therapists received the survey invitation via social media, and the true population size is unknown. This survey was further limited due to the short time of two weeks to gather the data due to time constraints within the semester of the student researcher's academic program; if more time had been available it may have been possible to receive more completed surveys. There were limitations geographically as the majority of the participants were from rural Wyoming, Kentucky, and a few from other states. The limited data makes it difficult to generalize to other rural communities in the United States. Another limitation was the fact that the 14 male therapists were OTR/L's; no male COTA's participated in the survey. Statistically, the percentage of male to female ratio is consistent according to the U.S. Bureau of Labor Statistics, (2019). It would be interesting to explore other therapy positions and additional roles that may be held by rural practicing male clinicians, as these are unknown at this time. Another limitation of this study was that participants overall did not list details when

they chose the “other” option on the perceived barriers and supports questions. This information may have added to the quality of information for the barriers and supports to assist with the recruitment of therapists to rural America.

Implications for Practice

The sample for this research demonstrates highly educated therapists with 48.4% of responding therapists reporting that they are planning to continue their education or are in an educational program at this time. An important factor to consider when promoting occupational therapy in rural American communities is the fact that therapists are interested in educational opportunities. This study suggested that successful rural therapists desire to advance their education to become more diverse in a specific area or by advancing their degree. Occupational therapists are skilled educators but also life-long learners. They also perceive a lack of mentorship and opportunity for mentorship to be an important part of providing therapy services in rural communities. When recruiting occupational therapists to rural communities, this data suggests that having mentorship programs in place would be beneficial. Another important support for rural therapists is the ability to access education opportunities either with the company or through other sources. The quantitative data in this research revealed that having a lack of opportunities for education or funding for education was a barrier. It was also revealed that therapists who have worked in a rural setting for many years have a close relationship with their patients/clients/students and enjoy the challenges of having diversity in their practice.

This research as well as previous research demonstrates rural practice as a specialty and that rural practitioners have unique needs. This is an important point and should be considered when designing a benefits package. The benefits package could include continuing education

opportunities, mentorships opportunities, and loan assistance based on the perceptions of these participants. Another opportunity could be offering a company vehicle for travel when there is an extended distance of travel required between locations or possibly include a travel allowance.

Future Research

Further research could seek to explore rural communities in other states to explore recruitment needs and determine if geographic differences exist. Additional research on the supports and barriers with a wider geographic range and a larger number of participants would be beneficial to generalize the data to other rural communities. Qualitative research regarding supports and barriers to further research the experiences of practitioners in rural areas would add to the body of knowledge available and could be used as a resource for recruitment, training, and retention for rural communities. Future research on the rural placement of students during fieldwork to determine the needs students face during rural fieldwork placement would also be beneficial.

Summary

The results of the online survey of rural practitioners gives insight into the unique needs of rural occupational therapists. Rural practice has been described as a specialty practice requiring a great deal of knowledge on a variety of patient conditions and patient ages. Educational programs can use this information to offer a variety of experiences for students related to conditions and ages. The information gained in the research can be used for recruitment and retention programs and incentives in rural communities. The information of this research could be utilized by current occupational therapists to understand the unique needs in

rural communities to better prepare for the challenges in rural practice settings. It could also benefit students who are contemplating working in rural communities to plan their education pathways. This information adds to the body of knowledge on this topic and can be used in further research on the topic of rural health care needs. Research information could also benefit educators and community leaders who are training or seeking to employ therapists in rural communities.

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Appendix A: Survey Questions:

Occupational Therapy: The Supports and Barriers for Rural Practice

1. Do you work in rural community healthcare as an OTR/L, OT/L, OTA, or OTA? (Rural Community defined as 50,000 or less in population)
 - A. Yes
 - B. No

2. How do you identify yourself?
 - A. Female
 - B. Male
 - C. Non-Binary
 - D. Choose not to report

3. What are your credentials?

- A. OT/L
 - B. OTR/L
 - C. OTA
 - D. COTA
4. What is your highest degree level earned?
- A. Associate
 - B. Bachelor
 - C. Master
 - D. Doctorate
5. What rural setting do you work in? (choose all that apply)
- A. Skilled Nursing Facility
 - B. Home Health
 - C. Outpatient Clinic
 - D. Hospital
 - E. School

F. Other (write in)_____

6. How would you classify your OT only based employment?

A. One full-time position

B. One full-time position and one PRN

C. One part-time position

D. Two or more part-time positions

E. Multiple PRN positions

7. Why did you choose to work in a rural setting?

A. Family lives in rural America

B. Experience as a student therapist

C. Job availability

D. Flexibility of work days or hours

E. Pay earned

F. Other (write in)_____

8. What is your work status for your rural setting?
- A. Full-time (32+ hrs.)
 - B. Part-time (<32 hrs.)
 - C. PRN
9. How long have you worked in a rural setting?
- A. <2 years
 - B. 2-<5 years
 - C. 5-10 years
 - D. >10 years
10. What kind of support do you receive from your employer? (choose all that apply)
- A. Allowance for continuing education
 - B. Onsite education
 - C. Mentorship from other therapists within your company (maybe in another building)
 - D. Nothing provided by your employer.

E. Participation in an informative social media group

11. Do you have plans to further your training/education?

A. Specialty certification

B. Advanced degree

C. No plans at this time

D. Other (write in)_____

12. Do you have other responsibilities within your employment? (choose all that apply)

A. Attend facility or company meetings

B. Member of committee (ex. fall, weight loss, at risk, etc.)

C. Scheduling

D. Education of other staff or disciplines

E. No other responsibilities other than evaluation and treatment of clients

F. Other (write in)_____

13. What factors do you perceive as barriers which negatively impact your OT employment?

(choose all that apply)

A. Pay earned

B. Responsibilities other than OT

C. Mentorship

D. Lack of equipment or supplies

E. Lack of allowance for continuing education

F. Insurance limitations

G. Productivity requirements

H. Decreased hours

I. Other (write out) _____

14. What factors do you perceive as supports which positively impact your OT employment?

(choose all that apply)

A. Pay earned

B. Responsibilities other than OT

C. Mentorship

- D. Equipment or supplies
- E. Allowance for continuing education
- F. Onsite education or training support
- G. Productivity requirements
- H. Work hours
- I. Other (write out) _____

15. What do you like most about working in rural community practice? (choose all that apply)

- A. Variety of population (ex. Children, teens, adults or elderly)
- B. Variety of conditions treated (ex. Learning disabilities, orthopedic, medically complex or pain)
- C. Relationships with clients and/or client families
- D. Relationships with co-workers
- E. Close to home
- F. Close to children's school/daycare
- G. Pay earned
- H. Other (write out)_____

16. What do you dislike most about working in rural community practice? (choose all that apply)

- A. Variety of populations (ex. Children, teens, adults or elderly)
- B. Variety of conditions treated (ex. Learning disabilities, orthopedic, medically complex or pain)
- C. Relationships (HIPPA concerns, people questioning about clients you treat)
- D. Travel to facility
- E. Not close to home
- F. Not close to children's school/daycare
- G. Pay earned
- H. Other (write out)_____