The Lived Experience of Nursing Appalachia: Sampling and Recruitment

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Abstract

Purpose: Research in rural areas presents special challenges for sampling and recruitment. Examples of considerations include smaller sampling population, privacy concerns, and the rural context. The purpose of this article is to discuss the results of sampling and recruitment strategies within this study.

Sample: Nurses form a central hub of health care in rural communities. However, little is known about the lived experience of nurses serving in this capacity. This study explored stories of nurses in a six-county area of three adjoining states in rural South Central Appalachia.

Method: Recruitment for the study was completed using state boards of nursing social marketing

strategies and snowball sampling.

Findings: Sampling and recruitment efforts enlisted 15 participants. The sample was deemed

representative of the population as participants represented diverse employment contexts,

education preparation levels, licensure duration, and multiple generations.

Conclusions: Understanding implications of rural setting and cultural context are critical to

successful recruitment and sampling. Privacy considerations may still be concerning, however,

multiple de-identification strategies serve to help lessen this risk. Social marketing strategies failed

to recruit the needed number of participants secondary to the fact that participants from only one

state were recruited in this manner. Smaller population pool limitations were eased by snowball

sampling, an approved recruitment method in qualitative research. Future researchers should be

cognizant of the influence of rurality norms and cultural context on recruitment and sampling

efforts. Social marketing proved less successful than snowball sampling strategies. Further

research is needed to develop best practice for rural recruitment and sampling via social marketing.

Finally, time and resource commitment for participation can be a barrier. Flexibility in scheduling

interviews, location of interview sites, and the availability of audio/phone interviews served to

facilitate agreement to participate.

Keywords: rural, nursing, Appalachia, research, sampling, recruitment

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The largest body of health care providers is nurses. Nurses provide care around the clock in

many health care settings. They serve as a source of preventative care and as the primary source

of health care information. Of all professionals, nurses have been rated highest in ethical standards

and honesty for the last 15 years (Norman, 2016). They are viewed as advocates and trusted

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members of the community "who provide holistic care with empathy, cultural competence, and professionalism" (Brewer, 2018, p. 11). Their work ethic, leadership, strength, courage, and resilience are widely recognized. However, nurses largely work in the shadows out of the public eye. Little is known about the nurse as an individual apart from their role as a nurse. They work independently and in collaborative teams caring for clients across the lifespan in all global settings and all phases of the health and wellness continuum (International Council of Nurses, n.d.). Registered nurses (RNs) are described as "determined, willing to work, able to overcome, and willing to assume positions as leaders in the profession, the community, and the region (Brewer, 2018, p. 6). Nurses' contribution to improving outcomes for clients and communities are noticeably visible while the nurses themselves remain hidden. The literature demonstrates efforts to improve health of Appalachian individuals and communities through focused regional healthcare systems (Fletcher, Slusher, & Hauser-Whitaker, 2006; Jessee & Rutledge, 2012; Lee, Hayes, McConnell, & Henry, 2013) but rarely through the work of the individual nurses who work in rural Appalachia. Although registered nurses influence hundreds of lives every day, the story of how individual nurses get up and go to work every day, the personal significance of what a nurse does, and private challenges encountered by the nurse have not been explored This gap in knowledge is significant because nurses are essential to the health of communities and populations. Nurses make up the largest group of health care providers, serve as a primary source of preventive care or health care information, and are ever close to clients (Menehan, 2011). Additionally, nurses encounter multiple challenges inherent to rural practice, the requirement of being an expert generalist, and working in professional isolation (Fahs, 2017; Luger & Ford, 2019; Molinari & Bushy, 2012). Previous research provides descriptions of individual nursing actions but fails to provide integrated, theoretical insight of nursing practice (Winters & Lee, 2018). Using qualitative

research methodologies of recruitment, nurses were invited to tell their personal story of living and working in rural Appalachia. Recruitment of participants in rural communities may necessitate use of multiple strategies and pose special challenges for de-identification and anonymity of both participants and research data. The purpose of this article is to discuss barriers and challenges of recruitment processes for the study.

Rural Appalachia

Appalachia is marked by diversity and contrast--gently sloping hills to fertile valleys, craggy mountain slopes to deep hollows, and urban municipalities to rural regions. The Appalachian Region follows the Appalachian Mountain Range through 12 states and all of West Virginia, covering 205,000 square miles with a population of over 25 million people. The Appalachian Region is subdivided into regions having similar characteristics of topography, demographics, and economics (Appalachia Regional Commission [ARC], n.d.). Almost half of the region is rural (ARC, n.d.). The focus region for this research study is a six-county area that includes three adjoining states of south-central Appalachia.

Defining rurality depends on the application of the term. Quantification of population size and density serves to define rural and urban by the U.S. Census Bureau (n.d.a.). Another definition of rural proposes an aerial view of a rural area denotes a high percentage of open country, population densities of less than 500 people per square mile, and settlements of fewer than 2500 residents (U.S. Department of Agriculture Economic Research Service [USDA ERS], n.d.d.). The USDA ERS incorporates definitions of the Office of Management and Budget into definitions of rural. This strategy takes into consideration the flow of a population's labor flow as well as population density. The Rural-Urban Continuum Codes (RUCC) differentiates metropolitan (metro) counties and nonmetropolitan (nonmetro) counties (USDA ERS, n.d.b.). A nonmetro

county is considered *adjacent* if it is physically adjacent to a metro area and at least 25% of its workforce commutes to a metro county with higher code numbers indicating increased rurality (USDA ERS, n.d.b.). Further classification, core-based delineation, reflects the population size of metro areas and nonmetropolitan counties by the size of the largest city or town and the proximity to metro and micropolitan areas with higher numeric values (1-12) representing increased rurality (USDA ERS, n.d.c.). A final classification is provided through Frontier and Remote Area Codes determined using a combination of low population size and higher geographic remoteness as identified by zip code areas with higher numeric levels indicating increased rurality (USDA ERS, n.d.a). Three of the six focus counties in this study have zip codes areas included in the Frontier and Remote Area Code designation. Since this classification is based on zip codes and multiple zip codes exist within each county, focus counties of this study were identified as dichotomous "yes" or "no" if any of the zip codes in a county are classified as any level of frontier and remote areas. The classification for the six counties of this study is shown in Table 1. This study adopted the definitions of the USDA, ERS as it was anticipated the considerations of workforce flow and proximity to metropolitan centers would be a consideration for some study participants' perceptions of nursing practice rather than merely population density of the communities where they worked and lived.

Rural Nursing

Rural health care differs from urban health care in that the health care providers and systems are not the same, the community context changes, access to health care varies, and, importantly, nursing practice is dissimilar.

Table 1

County Specific Data for Rural Classification

| County | ^a U.S. Census | ^b USDA, ERS | °USDA, ERS | ^d USDA, ERS |
|----------|--------------------------|------------------------|------------|------------------------|
| | Bureau | RUCC | UIF | Frontier and |
| | Population/sq mi | | | Remote Area |
| County A | 47.5 | 9 | 10 | Yes |
| County B | 35.1 | 9 | 12 | Yes |
| County C | 64 | 7 | 10 | Yes |
| County D | 163.4 | 5 | 8 | No |
| County E | 91.1 | 6 | 3 | No |
| County F | 61.1 | 6 | 6 | No |

Note. Adapted from county specific data of ^aU.S. Census Bureau, (n.d.b.), Quick facts. ^bU.S. Department of Agriculture Economic Research Service (n.d.b.), Rural-urban continuum codes (RUCC). ^cU.S. Department of Agriculture Economic Research Service (n.d.c.), Urban Influence Codes. ^dU.S. Department of Agriculture, Economic Research Service (n.d.a.), Frontier and Remote Area Codes.

Historically, medical education, medical facilities, and the number of medical providers were more advanced and available in urban areas when compared to rural areas. The low population census in Appalachia, as with all rural areas, failed to provide the fiscally stable environment for practice resulting in a shortage of health care services (Barney, 2000; Behringer & Friedell, 2006). Rural communities are different. Individuals living in rural areas are more likely to experience environmental and social barriers to health and well-being. These obstacles include poverty, educational attainment, health literacy, adequate community infrastructure, access to healthy and affordable food/housing and transportation (Rural Health Information Hub [RHIhub], n.d.). Health care access is different. Distance may be a barrier to access for primary health care as rural residents may have to travel long distances that places a considerable drain on time and finances (Deskins et al., 2006; Lane, et al., 2012). Travel across county, or even state, boundaries is common in many areas. Most importantly, rural nursing practice is also different. Rural nurses typically earn less, frequently work during staffing shortages, encounter professional challenges in the work

environment, navigate poorly funded public systems, overcome inconsistencies in educational opportunities, and deal with everyday life barriers inherent to rural living such as housing and child care (Baernholdt & Mark, 2009; Jackman, Myrick, & Yonge, 2012; Roberge, 2009; Robert Wood Johnson Foundation, 2010; Rohatinsky & Jahner, 2016; Sellers et al., 2019; Thrill, Pettersen, & Erickson, 2019).

Characteristics of rural nursing and the Rural Nursing Theory reflect many perspectives of nursing in Appalachia (Brewer, 2018, Winters & Lee, 2018). Professional isolation, leadership, and professional autonomy are expected norms for nursing practice (Brewer, 2018; National Advisory Committee on Rural Health and Human Services, 2015; Persily, 2004; Russ, 2010). Examples of nursing leadership are demonstrated by nurses serving as community advocates bringing needed healthcare services to underserved communities (Cockerham, 2015; Fletcher, Slusher, & Hauser-Whitaker, 2006; Huttlinger, Schaller-Ayers, Kenny, & Ayers, 2004; McDaniel & Strauss, 2006; Snyder & Thatcher, 2014; Winters & Lee, 2018). The literature illustrates how nurses work to improve outcomes for clients and communities, yet little is known about the personal experience of nursing. Discovery of these perspectives is challenged by recruitment barriers inherent to the rural context of the study.

Study inclusion criteria were defined as a registered nurse who works and lives in Appalachia, willingness to allow voice recording of the interview, English as the spoken language, and over the age of eighteen years. Exclusion criteria included lack of experience working as a registered nurse in Appalachia. To answer the research question of the lived experience of the registered nurse in Appalachia, careful consideration was given in defining the targeted population. The first decision was in defining a practice and educational level of the nurse participants. Licensed practical nurses were excluded from the study as this level of practice and education

lacks the scope necessary for many leadership and professional roles. However, registered nurses and nurses with graduate degrees and/or advanced practice have the same initial educational preparation and licensing process, with recognition of additional licensing and education for advanced practice, so the both levels were included in the study. Increasing the breadth of inclusion criteria for all levels better represented the targeted population (Bonevski, et al., 2014).

Another consideration was the embeddedness in the context of Appalachia. Selection of only native Appalachians would reveal the lived experience through a cultural lens. However, the six-county region in Appalachia has seen a lot of growth. It contains a large tourism industry, a large retirement population from other areas of the nation, many vacation homes, and a large regional state university. The identification of the nurse to the Appalachian culture would be difficult to ascertain. Therefore, it was deemed appropriate to include all RNs who practice within the six-county region. The primary goal was to understand the lived experience of being a registered nurse who lives and works within the defined geographic area. Prior to recruitment, the study received approval through IRB processes (Protocol V10) at the regional university where the study originated.

Access to participants was somewhat problematic. The researcher is a resident of the region and it was presupposed that she might know or be known by some of the participants. This shared knowledge of each other on a personal basis and lack of anonymity is an established component of rural nursing practice. It was recognized that it was impossible to eliminate this small-town, rural characteristic, and any associated insider implications (Lee & McDonagh, 2018). Care was taken to recruit participants as objectively as possible as described in social marketing strategies (Bonevski et al., 2014) by asking the state nursing associations of the three states to send an email containing information about the study to regional nursing association members. This social

marketing strategy was successful in recruiting informants from only one state and snowball recruitment strategies were initiated as approved in the study proposal. When potential participants answered the recruitment email, further details about the purpose of the study, expectations for participating, confidentiality procedures, and use of participant's data during analysis was given. At that time, the decision for inclusion as a participant was mutually agreed between the researcher and the informant. Four participants were recruited using state nursing association emails to regional members explaining the study and study participation. The relatively small number of participants recruited this way limited the potential for the perspectives of all the nurses in the focus area to be represented equally, a decreased representativeness of the sample. Additionally, recruitment exclusively through state nursing association emails could produce a sample of upwardly mobile or advanced practice nurses rather than a sample representing all the nurses in the focus region because not all nurses may belong to the nursing association due to barriers of membership such as inability to afford membership fees. Final recruitment review identified nurses were recruited from two of the three states.

A far more productive and equally acceptable recruitment strategy was snowball sampling. Snowball sampling strategies involve informant member identification of other candidates suitable for inclusion (Bonevski, et al., 2014; Creswell, 2007) although this strategy presented some challenges as well. The researcher has lived in one of the targeted counties for 50+ years. She has worked as a registered nurse in two of the counties for 20+ years. The extended time in the region was challenging with both positive and negative implications. In this case, perceptions of the rural insider served to facilitate recruitment strategies (Bonevski, et al., 2014). This could present a threat to representativeness so the researcher was very intentional when discussing snowballing strategies with participants and care was taken to recruit without bias or preference. Equal attention

was given to avoid all sense of pressure for participants to provide additional potential participants. It is possible that some prior association could unintentionally influence recruitment efforts. To lessen this potential, all participants who met the inclusion criteria were interviewed without exception on a first-come, first-interview basis whether they knew the researcher or not, an ethically sound strategy (Margolis, 2000; Reel, 2011). Five of the participants knew the researcher. Three additional participants had heard of but did not know the researcher. Seven participants had no prior knowledge of the researcher.

Sampling in qualitative research is cyclical, recurrent, and emergent (Higginbottom, 2004; Maxwell, 2013; Miles & Huberman, 1994). The initial effort of recruitment was through the social marketing strategy that produced a sample size far short of the required number. However, during the interviews with these individuals, the snowball recruitment strategy was introduced to informants and a new list of potential participants was created. With each cycle of interviews, new informants were identified until it was determined that no additional interviews were needed. This cyclical pattern facilitated introduction of multiple participants unknown to the researcher. Additionally, it supported timing of the interviews so analytic procedures could occur between interviews as befitting qualitative research protocols (Maxwell, 2013).

Sampling Outcomes

Sampling and recruitment for this study produced fifteen participants from two of the three states. All of them have been employed in various positions including school nurse, nursing education, primary care, mental health, hospital staff nurse, skilled nursing facility, university health clinic, home health, and outpatient surgery. All have worked in the hospital setting at some point in their career. Half of them still work in the hospital. Only two participants did not provide direct patient care in some capacity at the time of study participation. This diversity supports the

representativeness of the sample. To understand the context of the work environment better, Table 2 provides an overview of hospital services in the targeted counties. The researcher resides in County C. She has worked in Counties C and D.

 Table 2

 Hospital Health Care Service for Targeted Counties

| Hospital Qualification | County A | County B | County C | County D | County E | County F |
|------------------------------|-------------------------------------|----------------|-------------------------------------|--------------------|--------------------|-------------------------------------|
| CAH / Acute | САН | No Hospital | САН | Acute | Acute | САН |
| Governance / Ownership | Voluntary Nonprofit / Private | No Hospital | Voluntary Nonprofit / Private | Government / Local | Government / Local | Voluntary Nonprofit / Private |
| Number of Beds | 25 | No Hospital | 25 | 117 | 120 | 2 |
| Number of RNs (FTEs) | 22.5 | No Hospital | 48.3 | 114.5 | 202.5 | 11 |
| Annual Total Patient Days | 1,355 | No Hospital | 5,285 | 14,368 | 15,145 | 56 |
| Obstetric Services | No | No Hospital | Yes | Yes | Yes | No |
| Surgical Services | Yes | No Hospital | Yes | Yes | Yes | No |
| Emergency Room Services | Yes | No Hospital | Yes | Yes | Yes | Yes |
| Intensive Care | No | No Hospital | No | Yes | Yes | No |

Note: Adapted from information obtained from the following sources: American Hospital Directory, n.d. Free hospital profiles, retrieved from https://www.ahd.com/search.php; Hospital and Nursing Home Profiles, n.d., retrieved from www.hospital-data.com; Official U.S Government Site for Medicare, n.d., Hospital Compare, retrieved from https://www.medicare.gov/hospitalcompare. Critical Access Hospital (CAH)

Demographics of the nursing participants show an older nurse population. This could be an outcome of sampling strategies but, equally possible, the prevalence of older nurses is reflective of the aging nurse workforce (National Council of State Boards of Nursing, n.d.) or as a characteristic of rural populations (Winters, 2018). Another observation of the demographics

demonstrates the diverse levels of education even though the nurses were educated in many different sites both inside and outside the focused six-county region. One third of them worked as a licensed practical nurse (LPN) before pursuing additional education. Eight have an associate's degree in nursing (ADN). Eleven have a baccalaureate degree in nursing (BSN). Eight participants have a master's degree. Three of the fifteen have a terminal degree (PhD and DNP). One had less than one year of experience as a registered nurse but eleven have over 20 years of experience. A conclusion from analysis of the study data showed that years of practice in Appalachia tends to lead nurses to stay in the region for long periods regardless of their place of origin. It is anticipated that younger nurses or nurses who are still in the early years of their career would change jobs, seeking new opportunities as indicated by a lower number of, years at the same place. Yet, as illustrated in Table 3, the category Average years employed at current job indicates that, even with advancing years of age, nurses are open to changing jobs, beginning new experiences, demonstrated by the range of average years in the current job beginning at 1 month for nurses 50-60 years of age and at 3 years for nurses 50-59 years of age. Table 3 provides an overview of participant demographics.

Table 3Participant Demographics

| Age (10 yr. | Participants n | Mean Years As RN | Mean Years Employed at | Mean Years Practice in | Ed. Background / |
|-------------|-------------------|---------------------|---------------------------|---------------------------|---------------------|
| groups) | П | (range; SD) | Current Job (range; SD) | Appalachia (range; SD) | Degrees |
| 60-69 | 5 | 33.6 | 8.82 | 22 | LPN, ADN, |
| | J | 23-41; 7.44) | (.12-20; 7.83) | (3-35; 15.07) | BSN, MSN, PhD |
| 50-59 | 4 | 27.75 | 15.75 | 25.25 | LPN, ADN, |
| | | (25–33; 3.7) | (3-30; 12.09) | (15-36; 10.78) | BS, MSN, DNP |

| Age | Participants | Mean Years | Mean Years | Mean Years | Ed. |
|---------|--------------|---------------|--------------|---------------|--------------|
| (10 yr. | n | As RN | Employed at | Practice in | Background / |
| groups) | | (range; SD) | Current Job | Appalachia | Degrees |
| | | | (range; SD) | (range; SD) | |
| 40-49 | 2 | 21.25 | 5 | 21.25 | ADN, BSN |
| | | (20-23; 2.12) | (5;0) | (20-23; 2.12 | |
| 30-39 | 2 | 13.5 | 5.25 | 12.5 | LPN, ADN, |
| | | (11-16; 3.54) | (5-5.5; .35) | (11-14; 2.12) | BS, MSN, |
| | | , , , | | , , , | FNP |
| 20-29 | 2 | 1.6 | 1.6 | 3 | LPN, ADN, |
| | | (.4-3; 1.94) | (.4-3; 1.94 | (5; 0) | BSN |

Note Partial Years expressed as decimal. Abbreviations: Associate Degree Nursing (ADN), Bachelor's of Science Degree in Nursing (BSN), Family Nurse Practitioner (FNP), Licensed Practical Nurse (LPN), Mater's of Science Degree in Nursing (MSN), Philosophy of Science Degree (PhD), Standard Deviation (SD)

Discussion

Sampling and recruitment for research in rural areas may present special considerations. Researchers should be knowledgeable of and accommodating to rural setting and cultural context prior to attempting recruitment efforts (Cudney, Craig, Nichols, & Weinert, 2004; De Chesnay, 2015; McCormick et al., 1999; RHIhub, n.d.). Use of community members, including insiders and local researchers, known to potential participants may increase trust, perceptions of familiarity, and, thereby, agreement to participate in the study (Bonevski, et al., 2014). For this study, knowledge of the researcher facilitated recruitment efforts which was a key consideration of potential bias for the researcher during analysis. The balance between ease of recruitment and analysis bias must be considered during the planning phase for qualitative research.

Travel and time commitment influence agreement to participate in research. Rurality implies greater demand on time and resources, including interference with employment responsibilities (Morgan, Fahs, & Klesh, 2005). This study countered these barriers though researcher flexibility in timing, meeting sites, and the ability to do audio/phone interviews. Another strategy could be through use of online meeting platforms or a visual/auditory conference such as FaceTime. When

considering use of these mediums, privacy would also be of prime consideration. More research is needed to explore security and availability of these modalities in rural populations.

The concepts of knowing/being known and the lack of anonymity in rural communities are widely recognized as considerations (Lee & McDonagh, 2018). Much of the previous work on anonymity centers on the client as participant (McCormick et al., 1999). However, less information is available on anonymity of the nurse as the participant, an especially concerning problem as nurses are privy to a great deal of restricted information for their clients and institutions of employment. Rurality increases the risk due to the increased familiarity not only of people but also of situations even though de-identification processes are enabled (RHIhub, n.d.). It was likely that nurse participants might anticipate inadvertent breach of confidentiality, a serious ethical issue. The informed consent was used as a tool to inform participants of the risk and measures to lessen that risk in this study. Measures included in the study included requests to participants to refrain from using identifiable statements related to specific occurrences or clients, de-identification of data in the transcripts through removal of identifiable places or groups, destruction of audio recordings to avoid accidental voice recognition of participants, exemption of situations that increased risk of recognition from all transcripts and researcher reflective writings, and a final round of de-identification when reporting results. Release of the informed consent document prior to agreement to participate with ample time to understand planned measures and to clarify concerns served to increase recruitment.

The population pool is smaller in rural areas so sample sizes may be adversely affected but use of interviews or focus groups may help ease this restriction (RHIhub, n.d.). Larger geographic areas along with fewer potential participants result in higher costs for recruitment financially and timewise (Cudney et al., 2004). However, the barriers of small population pool and higher burden

of recruitment may be eased by obtaining thick, rich data through purposeful sampling of individuals who have in-depth knowledge of the focused topic (Higginbottom, 2004; Maxwell, 2013). Social marketing recruitment was effective in only one of the three states, leading to snowball sampling which was effective in recruiting participants from a second state. The criteria of inclusion and exclusion for this study led the researcher to participants who directly experienced the phenomena of interest and were able to provide that desired quality of data.

Another widely used recruitment strategy is through use of incentives (McCormick et al., 1999; Singer & Couper, 2008) especially when the response rate is low as with the beginning of recruitment in this study. Singer and Couper (2008) propose three reasons why individuals agree to participate in research: (a) altruism, (b) interest in the survey topic and/or the researcher, and (c) egotistic reasons, i.e. receipt of monies or incentives. Undue influence typically is associated with external factors that sway participant decision-making processes, especially when there is a difference in power or authority over another person (Resnik, 2015). The rationale for lack of incentive use in this study is related to not wanting to impose undue influence on participant decision-making processes. Since the researcher was native to this area, it was decided to not offer incentives so there would not be a sense of undue influence. The researched decided to not offer any incentive outside of the sense of benefit of contributing to the profession of nursing and nursing knowledge which reflects the rationale of altruism (Singer & Cooper, 2008) and is one of the reasons individuals agree to participate in research.

Evaluation of the sample provides insight of the body of participants and the effectiveness of the recruitment strategies. Participants revealed the full scope of nursing educational preparation. Many started their nursing career as LPNs but all had pursued additional education with a majority having attained a BSN degree. The high proportion of participants with a BSN

and/or a master's degree may reflect the success of distance/online opportunities instituted in response to documented challenges for education opportunity in rural areas (Brewer, 2018). This characteristic contradicts findings of Newhouse, Morlock, Provonost, and Sproat (2011) who found a majority of nurses practicing in rural areas are educated at the associate level. However, the low number of participants with a terminal degree may question similar effectiveness of education at that higher level of preparation.

Finally, the majority of the nurses are older and they hold most of the experience for patient care, implying much of the knowledge will leave with them when they retire. It is possible that the sample representativeness did not adequately capture the balance of older to younger nurses. However, the adequacy of this recruitment is supported by other research showing that nurses are indeed growing older. The National Council of State Boards of Nursing (n.d.) and the National Forum of State Nursing Workforce Centers (2016) report 50.9% of registered nurses are 50 years old or older and the Health Resources and Services Administration estimate that more than 1 million registered nurses will reach retirement age in the next ten to fifteen years (American Association of Colleges of Nursing, n.d.).

Limitations of the study include use of a single six-county area as the region of focus as it limited the sample to a somewhat homogenous group. Although diversity in age, experience, and education was demonstrated, the lack of ethnically or racially diverse participants was a limitation of the study. This was not an intentional action but was a foreseeable result as the region as a whole is highly homogenous. A final limitation of the study was the fact that the researcher was a member of the community.

Implications

Sampling and recruitment strategies in rural areas must be sensitive to and inclusive of the characteristics of the study environment even though the contextual variation may be very subtle. Understanding cultural considerations is important but rurality adds an overlay of complexity to the context for research. The fact that the researcher possessed knowledge of the region and culture served to facilitate this study, however, recommendations for future sampling should include knowledge of rural characteristics as well as cultural characteristics. For example, it would be important for the researcher to understand common communication processes across the rural community as well as face-to-face interactions between the researcher and the participant. Anonymity and confidentiality are especially problematic in rural research but when coupled with professional ethical standards for nurses, extra caution is required. Future efforts should explore how to best overcome those risks and yet produce the highest quality of data. The smaller population pool of a specific region presents challenges. Use of multiple sites to explore a phenomenon may increase the population pool as well as the depth of insight about the topic. It also may decrease the likelihood of a homogenous sample as found with this sampling strategy. Future efforts to counter the small sample pool and homogeneity may be inclusion of additional regions of both the Appalachian region and comparable rural regions across the nation. Finally, social marketing produced a smaller number than anticipated. It is unknown if the lack of successful participant buy-in through social marketing via state boards of nursing hindered sampling significantly, however, in this study, the mark of success as a recruitment strategy is limited. Additional research is needed to increase the effectiveness of social marketing in this targeted population.

Conclusion

Recruitment and sampling in rural research can be problematic. Simultaneous use of multiple recruitment strategies and multiple sites can increase the likelihood that an adequate, representative sample is obtained. Transparency in strategies for de-identification may ease privacy concerns arising from the lack of anonymity common to rural areas. Other strategies to improve recruitment include use of incentives and flexibility in timing or location of interviews. Nursing practice is central to well-being of rural populations. It is important to identify and ease barriers of recruitment and sampling so this population can be studied in depth. Their voice is the truest reflection of the lived experience of being a nurse in a rural area. Appropriate sampling and recruitment will facilitate discovery of those perspectives and, thereby, support effective professional practice.

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