

## **Rural Professional Isolation: An Integrative Review**

Martha A. Williams, MS, RN, NEA-BC, PhD Student

Assistant Vice President Nursing, Arnot Osgen Medical Center; PhD Student, Binghamton University, Rural Nursing, [mwilliams@aomc.org](mailto:mwilliams@aomc.org)

### **Abstract**

**Background:** Chronic nursing shortages have plagued rural communities for many years. It is therefore important to highlight the specific challenges confronting rural areas in regards to recruiting and retaining nurses. One challenging factor associated with recruitment and retention of rural nurses is professional isolation.

**Purpose:** This paper reports the findings of an integrative review conducted to analyze and critique recent empirical and theoretical literature on the concept of rural professional isolation. The author explores the ways in which professional isolation has been considered in the multidisciplinary health and nursing literature.

**Methods:** A cross-search of three nursing and social science databases located 26 papers, the majority published between 2000 and 2010. In addition, several classic articles dating back to 1989 were included. The articles focused on various aspects of professional isolation in nursing, medical, and allied health literature. Whittemore and Knafel's integrative review method guided the analysis. A narrative description of findings and synthesis of data was performed.

**Results:** Professional isolation appeared in the literature in numerous contexts. As it relates to rural nursing, the concept has often been cited, but remains poorly described.

**Conclusion:** Professional isolation may be geographic (a distance from), social (a lack of contact with), or ideological (out casted from). However, most of the literature reviewed relates to the geographic or the social aspects of the concept. Electronic communication and information technology hold great potential for reducing professional isolation of nurses who practice in rural areas.

**Keywords:** Integrative Review, Professional Isolation, Rural Nursing

## **Rural Professional Isolation: An Integrative Review**

Failure to recruit and retain talented nurses in rural settings is a major concern across North America and abroad (Roberge, 2009). To combat this phenomenon, it is vital that we understand the factors that lead to successful retention of rural nurses, and the prevention of high vacancy rates among them. Reasons given for shortages and vacancies across rural settings generally relate to the unique boundaries and dimensions of rural nurse practice, but a better understanding of the specific constraints confronting rural nurses is needed (Bushy, 2002, 2004).

Professional isolation (PI) has specifically been cited as an inhibitor to the recruitment and retention of nurses in rural areas; yet even amidst increasing rural nursing literature in the last decade, relatively little has been published about the concept (Brown, Williams, & Capra, 2010; Bushy, 2002; Stewart & Carpenter, 2009; Taylor & Lee, 2005). This paper is a report of an integrative literature review conducted to summarize and critique the recent empirical and theoretical literature related to PI, and to describe the nature of PI from a rural perspective. A

better understanding of the concept will assist the nursing community in theory development, and it will have direct applicability to rural nursing practice and policy.

## **The Review**

The purpose of this integrative review is to analyze, critique, and synthesize the recent body of literature on the topic of PI, focusing on the rural aspect. Nursing, allied health, and medical literature are included in the review. The author will describe the various ways in which the term is considered in the multidisciplinary and nursing literature.

The integrative review has been identified as a robust tool for synthesizing available literature on a given topic. This approach combines data from theoretical and empirical literature, and allows for a full understanding of the topic under investigation (de Sousa, da Silva, & de Carvalho, 2010). Whittemore and Knaf's (2005) revised integrative review method guided the author in the identification of published literature related to PI. The design focused primarily on research and theoretical literature in the areas of nursing, allied health, and medicine.

## **Search Methods**

To identify the body of relevant literature available on the concept of rural PI, the author performed a cross-search of CINAHL, MEDLINE, and Academic Search Complete using a combination of the keywords "professional isolation" in title or abstract and "rural" in abstract. The search was designed to expose a large number of results as well as the earliest literature on the concept. Therefore, no time limit was applied to the initial search. Articles discussing PI in both rural and urban settings were considered.

## **Search Outcome**

This approach yielded 222 results from various domains. References were examined in an effort to capture any missing articles authored by rural scholars thought to contribute to the review. This technique produced ten additional articles. Next, the search was limited to scholarly (peer reviewed) articles in source type periodicals; this yielded 83 results after duplicates were eliminated. Development of inclusion criteria facilitated the final selection of relevant references. Articles containing relevant discussions of the concept of PI or any discussion of models or frameworks applied to the PI were considered. Any studies that attempted to address PI including quantitative, qualitative, and mixed-method research studies were considered. Only articles in English from 2000 to the present were included, unless they were considered classic or seminal articles. Studies discussing the concept of PI in disciplines other than nursing were considered to investigate whether or not the concept was described similarly across disciplines. Lastly, any piece of writing that specifically mentioned any of the Long and Weinert (1989) key concepts relevant to the provision of care by rural health care providers was included to assure that the rural perspective was captured. Articles were not included in the literature review if their discussion focused specifically on disease or disease management, or isolation experienced by rural residents. Any definition of PI was accepted because there is no general agreement on a single definition. Any definition of rural was accepted for the same reason. No restriction was placed on geographical regions or place of origin of the article. The final selection included a combination of mixed method, quantitative, qualitative, theoretical, commentary, and reports for a total of 26 articles for review; twenty research and six non-research articles.

## **Quality Appraisal**

The twenty research articles were then systematically critiqued using the evaluative criteria set forth by Fineout-Overholt, Melnyk, Stillwell, and Williamson (2010) for quantitative research, or Cesario, Morin, and Santa-Donato (2002) for qualitative research. Each research study was evaluated for scientific merit, and scored for its level of evidence. The six non-research articles were critiqued, and categorized as level VII, or expert opinion. Upon completion of the evaluative reviews, all data were entered onto the literature comparison chart (Appendix A). Though some articles were more robust than others, all had merit, and none were excluded based on methodological quality.

## **Data Abstraction and Synthesis**

The 26 studies were synthesized under the following subheadings: (a) author/year, (b) definition of rural, (c) definition of PI, (d) design (e) purpose (f) sample, (g) quality score/level of evidence, and (h) findings/conclusions.

## **Results**

### **Publications/Clinical Domain**

The reviewed articles were first sorted by publication to identify those journals that published the most articles on the topic. The Online Journal of Rural Nursing and Health Care generated three articles, (Conger & Plager, 2008; Lee & Winters, 2004; O'Lynn et al., 2009). Two publications generated two articles each, Australian Journal of Rural Health, (Bushy, 2002; Rosenberg & Canning, 2004), and Scholarly Inquiry for Nursing Practice (Long & Weinert, 1989, 1999). All other publications produced only single articles for inclusion in the final review. The articles were then grouped by clinical domain. Those represented were: nursing, 15; medicine, 4; rehabilitation services, 3; nutritional services, 1; mental health, 1; and clinical informatics, 2.

### **Geographical Distribution**

The studies originated from United States, 9; Canada, 1, Australia, 9; United Kingdom, 6; and Sweden, 1. Twenty two articles were specific to rural areas; three described an urban aspect of PI, and only one compared results across both settings. The greater emphasis on rural was an expected finding, and suggests that PI is more commonly reported in rural settings.

### **Study Designs**

Nine qualitative studies were reviewed: (Conger & Plager, 2008; Courtney & Farnworth, 2003; Gibb, 2003; Gibson & Heartfield, 2005; Helitzer, Heath, Maltrud, Sullivan, & Alverson, 2003; Kohlwes, Koepsell, Rhodes, & Pearlman, 2001; Lee & Winters, 2004; Stewart & Carpenter, 2009; Vimarlund, Olve, Scandurra, & Koch, 2011). Of these, the sample sizes ranged from  $n = 2$  to  $n = 137$ , and were nursing, medical, or rehabilitation service oriented. All of the studies reported a greater than 95% female subject group, with one exception. Gibb (2003) reported a 50% male subject group; however, the sample size was small ( $n = 5$ ).

Eight quantitative studies were reviewed: (Bowers-Ingram & Nelson, 2009; Kemp, Zuckerman, & Finlayson, 2008; Kurzydlo, Casson, & Shumack, 2005; O'Donnell, Jabareen, & Watt, 2010; O'Lynn et al., 2009; Rosenberg & Canning, 2004; St. George, 2006; Taylor & Lee, 2005). All of the quantitative study designs were non-experimental; seven out of eight scored level of evidence VI. Only one quantitative study scored level V. Kemp et al. (2008) conducted a

retrospective descriptive comparison of the adoption rate of laparoscopic technique for performing cholecystectomy in small rural versus urban hospitals from 1988 to 1997. The data ( $n = 4,302,456$ ) was synthesized to answer whether PI was an obstacle in the dissemination of the laparoscopic technique. Of the quantitative studies, sample sizes ranged from  $n = 26$  to  $n = 4,302,456$ , and those authors who described gender reported  $> 92\%$  female.

Three of the research articles reviewed were mixed-method studies: (Bedward & Daniels, 2005; Brown et al., 2010; Chapman et al., 2004). Of these, Bedward and Daniels (2005) detailed the development of clinical supervision at several pilot sites. The study scored 20/24 for quantitative, and 22/30 for qualitative. The study had a large sample size, and was the only study to be conducted in two phases ( $n = 104$  in 1999, and  $n = 95$  in 2000). The study was enhanced by collaboration between the school of education and the health trust which made it unique. The authors however, did not report the gender of the study participants. The Brown et al. (2010) article was unique in that it was the only article to discuss PI in the context of rural dieticians. The study also possessed merit, scoring 18/24 quantitative, and 20/30 qualitative. The authors described both positive and negative characteristics of a rural role. This study reported a sample size of 140; 98% female. Chapman, et al., (2004) scored 17/24 quantitatively, and 18/30 qualitatively. The study was one of the older studies reviewed, making its literature review older as well. A convenience sample was used, and individuals who may not have been specialists may have responded, potentially confounding the results. The sample size was large, 449; gender was not reported.

The remaining non-research literature was either theoretical, report, or commentary. Each of the three theoretical pieces were classics, and therefore extremely important to this review (Lee & Winters, 2004; Long & Weinert, 1989; 1999). The two non-research reports written by well-known rural author Angeline Bushy (2002; 2004), are important in this discussion because they examine and expand on rural phenomenon in greater depth than is available in previous literature. Lewkonia's (2001) article is the only commentary to be reviewed. It is noteworthy because (a) it is one of only two articles that relate PI to incompetence; the other is Courtney and Farnworth (2003), and (b) it is the only article to mention a measurement tool to quantify PI, the "social disengagement scale" (Lewkonia, 2001, p. 528).

## **Defining Rural**

In their classic work on rural nursing, Long and Weinert (1989) defined rural nursing as "the provision of health care by professional nurses to persons living in sparsely populated areas" (p. 114). It is widely recognized that researchers and policy-makers may apply numerous definitions to the term rural. In the context of this review, any definition of rural was accepted, since there is no universally agreed upon designation. However, unique elements of rural life must be clearly understood by those providing health care to people residing in rural communities. Of the 22 articles specific to rural settings, only six of the articles defined rural in precise terms. Of these, Kemp et al. (2008) described rural in terms of RUCA codes; Kurzydlo et al. (2005) used the Australian definition of Rural Remote Metropolitan Areas (RRMA); Lee and Winters, (2004) defined rural as communities less than 1,300 persons; O'Lynn et al. (2009) applied the USDA 2007 definition; and Rosenberg and Canning (2004) applied Australian Health Care Zones to define rural. The remaining 16 rural-based articles all stated that they were carried out in rural areas, but only provided a narrative description of the term. Those descriptive phrases included for example, Long and Weinert's (1989) "sparsely populated areas" and "working outside of an urban center" (Taylor & Lee, 2005). In the studies that did not define the

term rural, one could usually conclude that the study was carried out in a rural area based on the study's demographics. A more precise definition of the term is an area of needed improvement.

### **Defining Professional Isolation**

Two articles stood out with respect to defining PI. The first, Long and Weinert (1989), is significant because it contains the earliest mention of PI from a rural nursing perspective. In their seminal article, the authors describe emerging themes and generated three relational statements from their qualitative data. It is the third relational statement that deals with rural care givers; their lack of anonymity, isolation from professional peers, and sense of role diffusion (Long & Weinert, 1989, p. 120). However in 1989, the concept was presented as an emerging theme, and a precise definition of PI was not given. A second important article by Shreffler (1998) provides more clarity to the meaning of the term than any other piece of literature reviewed. The concept analysis provides dictionary definitions, and summarizes the uses of PI from a rural point of view. The author uses the Walker and Avant method (as cited in Shreffler, 1998) of concept analysis. Attributes are summarized, and model, borderline, and contrary cases are proposed. Also presented are antecedents, consequences, and empirical referents. These two pieces of work are essential for anyone seeking to fully understand the concept of rural PI.

Within the remaining body of literature examined, PI was usually portrayed in a negative sense; a lack of some needed resource, or a distance from some needed person, place, or thing. Bedward and Daniels (2005) described PI in a social context of feeling unsupported, lacking opportunity, and not being recognized or praised for achievements. In a similar way, Chapman et al. (2005) used the terms job pressure and feeling undervalued to describe PI. A few authors described PI in the context of being distanced from peer support (Bedward & Daniels, 2005; Brown, Williams, & Capra, 2010; Bushy, 2004; Courtney & Farnworth, 2003; Kohlwes, et al., 2001; Kurzydlo, Casson, & Shumack, 2005; Lewkonina, 2001; Long & Weinert, 1989; O'Donnell et al., 2010; O'Lynn et al., 2009; St. George, 2006; Stewart & Carpenter, 2009). Others described PI in the context of lacking communication (Bowers-Ingram & Nelson, 2009; Bushy, 2002; Conger & Plager, 2006; Vimarlund et al., 2011; Taylor & Lee, 2005), or lacking proctorship or mentorship (Conger & Plager, 2006; Cumbie, Weinert, Luparell, Conley, & Smith, 2005; Kemp, Zuckerman, & Finlayson, 2008; O'Lynn et al., 2009; Rosenberg & Canning, 2004; Stewart & Carpenter, 2009). The term was often cited as a contributor to inadequate recruitment and retention, or higher than average vacancy rates (Brown et al., 2010; Bushy, 2002; Stewart & Carpenter, 2009; Taylor & Lee, 2005). Many authors specifically mentioned a geographic disadvantage (Cumbie et al., 2005; Gibb, 2003; Gibson & Heartfield, 2005; Kemp et al., 2008; Lewkonina, 2001; O'Donnell et al., 2010; Rosenberg & Canning, 2004; St. George, 2006; Stewart & Carpenter, 2009; Taylor & Lee, 2005; Vimarlund et al., 2011). Many articles described specific methods to reduce PI. These included provision of clinical supervision (Bedward & Daniels, 2005); creating nursing research opportunities (Bushy, 2004); development of support groups (Cumbie et al., 2005); use of telehealth (Helitzer et al., 2003); use of interactive CD-rom (Kurzydlo et al., 2005); e-mentoring, i-chat, and e-mail (Stewart & Carpenter, 2009); and use of information and communication technology (Taylor & Lee, 2005). One article described a new and emerging theme related to PI; Conger and Plager's (2008) article is unique in describing "rural connectedness versus disconnectedness" as it relates to geographic, social, and professional isolation. Another unique perspective was offered by Kohlwes et al., (2005). Their article dealt with physicians' responses to requests for physician-assisted suicide. The authors described a sort of ideological PI whereby those who participated in

this unconventional practice were in essence shut off from others by a professional “code of silence” (p.657).

### **Discussion**

In this integrative literature review, 20 research and 6 non-research articles discussing various aspects of PI, both rural and non-rural were reviewed. The focus of the review was to understand what has been written about PI from a rural perspective. A number of themes emerged from the literature, including characteristics and implications of rural PI. The rural nursing and rural medicine professions dominated the literature, with literature from North America and Australia prevailing. Inherent in the nature of rural PI is the notion of being distanced from some aspect of the profession, either from peers, technology, larger centers, or education. Another aspect relevant to rural PI included the idea of working alone; this was characterized by sole or solo practitioners, working in smaller teams, or working in non-urban locations. Some writers indicated that the consequences of rural PI could be either positive or negative, depending on the context. For example, familiarity could be positive when the practitioner had close knowledge of the patient and family, leading to well-informed care. It could also have negative effects if either the practitioner or the patient possessed sensitive information about the other that neither wished to share. More frequently however, rural PI was described as a barrier to recruitment, retention, or competence. Rural PI was further described as a lack of some element necessary to complete the professional role, such as peer support, mentorship, proctorship, continuing education, or technology, coupled with the practitioner’s perception that the necessary element was missing in his or her professional life. Finally, in terms of reducing the ill effects of rural PI, writers often identified communication and information technology as means to reduce PI thus improving recruitment and retention issues. The literature illustrates a sudden increase of information technology in recent years, which holds great promise in combating rural PI. Telemedicine, internet, e-learning, online coursework, i-cat and e-mail with professional mentors and peers, has only recently begun to appear in the literature.

There were several limitations to this literature review. The depth of PI research in rural health care settings is limited. That which does exist is plagued with imprecise definitions. The existing literature does however add credence to the notion that rural health care environments are unique from their urban and suburban counterparts. The general findings from this literature review are not conclusive due to the small number of articles examined. A thorough and comprehensive review of all sources is greatly needed. Other limitations of this review may be attributed to the design and quality of the assessment tools. The interpretative nature of this review involved subjectivity, therefore reliability of the scoring may be questionable. Finally, there is a need for further research to complete a more in-depth picture of rural PI.

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