Clinical Practice of Registered Nurses and Learning Styles Preferences

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Abstract

Learning styles are a major consideration in the education process. Knowledge of an individual’s learning style can be helpful in assisting the individual to be successful in educational undertakings. Nursing is a discipline that requires ongoing learning. One specific area of learning styles is perceptual modality preferences. The purpose of this study was to determine the relationship, if any, linking the registered nurse’s preferred learning style and their choice of clinical practice. Given the shortage of registered nurses the United States has experienced over the last few years, the preponderance of research relative to registered nurses has been related to job satisfaction.

Introduction

Registered nurses (RN) comprise the largest group of health care professionals in the United States (NACNEP, 2008). According to the Bureau of Labor Statistics (BLS) (2008-2009), there are approximately 2.5 million jobs for registered nurses in the United States. In addition, there is a projected 587,000 increase in job offerings in the 2010-2016 time periods. The majority (59%) of the registered nurses work in the hospital setting (BLS, 2008-2009). Most new graduate nurses seek employment in the hospital setting. Many new graduate nurses become disillusioned shortly after beginning their practice (Adams & Bond 2000). Could this sense of disillusionment be, in part, due to poor job fit between the new graduate’s learning style and the clinical area where they are placed?

The idea that the adult learner has particular goals in mind when undertaking a learning process has been well established (Dunn & Dunn, 1998; James & Blank, 1993; Saransin, 1999). This is true of an individual embarking on the journey to become a registered nurse. How an individual inputs information, processes that information, stores the information, and then recalls the information is the “learning style” of the individual. One’s learning style is individual. While there are persons who have similar styles, each person has an individual spin to their particular style. Researchers have
identified various definitions for the term learning style. Saransin (1999) defines learning style as:

A certain specified pattern of behavior and/or performance according to which the individual approaches a learning experience, a way in which the individual takes in new information and develops new skills, and the process by which the individual retains new information or new skills. (p. 1)

James and Blank (1993) defined learning style “as the complex manner in which, and conditions under which, learners most efficiently and most effectively perceive, process, store, and recall what they are attempting to learn” (p. 43).

There are many areas of clinical practice open to registered nurses. All of the areas require considerable amounts of information processing, the ability to act on the information that has been processed and the ability to evaluate the outcome of the actions taken. All areas of nursing require the ability to analyze symptoms and patient responses to provided therapies. However, each area has its own unique environmental factors. For instance, the nature of the emergency department requires the ability to process incoming information quickly and act on that information quickly whereas on a skilled nursing unit one has more time to think over the information, formulate a plan and then act on that plan. Some nurses thrive in the atmosphere of not knowing what is coming at any given moment and being ready to respond spontaneously. Other nurses prefer to be able to move at a more relaxed pace as they care for their patients.

There is a lack of research to determine if there is a relationship between the learning style of registered nurses and their preferred clinical practice area. By focusing on the preferred learning style of registered nurses and determining if there is a relationship between their learning style and preferred clinical practice area, nurses could be placed in clinical settings that would be congruent with their goals and objectives. Utilizing this information would increase job satisfaction as well as clinical performance.

**Methods**

The purpose of this study was to determine the relationship, if any, between perceptual modality learning style preference and the preferred area of clinical practice among registered nurses (RN) employed at one acute care hospital in the southeastern United States. The following research questions guided this study:

1. What is the relationship, if any, between the preferred area of clinical practice of registered nurses and their preferred perceptual modality learning style?
2. What is the effect, if any, of years of experience on the preferred perceptual modality learning style of registered nurses?

3. What is the effect, if any, of age on the preferred perceptual modality learning style of registered nurses?

A one-way Multivariate Analysis of Covariance (MANCOVA) was conducted to determine the effect of preferred area of clinical practice on the preferred modality preference of learning style of the sample population while controlling for the years of experience. This test allowed for the comparison of the means of the four independent variables, medical nursing, surgical nursing, critical care nursing, and women/children nursing with the seven dependent variables of learning style preference.

Participants

The participants in this study were 77 practicing registered nurses employed at an acute care hospital in the southeastern United States. The sample was taken from 702 practicing registered nurses at the institution. The demographics of interest were age and years practicing as a registered nurse. There were 11 choices of practice on the demographic questionnaire. However, because of the small number in each area, like areas were combined resulting in four areas of practice, medical, surgical (perioperative), critical care, and women/children.

The demographic variables of interest in this study were age, years in practice, and preferred area of clinical practice. The age of the participants ranged from 24 to 67. The mean age was 45.5 (SD 11.35) (N=77). The years of experience ranged from 1 to 45 with the mean years of experience 19.5 (SD 11.90) (N=77). The preferred areas of clinical practice were medical nursing, 18 (23%), surgical nursing, 14 (19%), critical care nursing, 37 (48%), women/children nursing, (10%).

Procedures

One instrument and a demographic questionnaire were used in this study. The instrument utilized was the Perceptual Modality Preference Survey (PMPS) developed by Cherry in 1981. The demographic survey was designed to capture demographic characteristics of interest in the study.

The PMPS is a product of the Multi-Modal Paired Associates Learning Tests (MMPALT). The MMPALT was developed by Gilley (1975) to measure the ability to recall paired information in six perceptual modalities: print, aural, visual, interactive, haptic, and kinesthetic. The PMPS was developed by Cherry (1981) to compare the results of persons taking both the MMPALT II and the PMPS thereby comparing
objective data (MMPALT II) and self-reported data (PMPS). The PMPS was revised in 1997 and publicized by the Institute for Learning Style Research (Harvey, 2002). Harvey’s study indicated strong construct validly using confirmatory factor analysis by estimating the chi-square (X²), Goodness of Fit (GFI), Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). Chi-square reported \( p>0.05 \) ranged from 81.20 to 142.48. All GFI were greater than 0.95. All estimates for the CFI were greater than 0.95 with the exception of interactive (0.91). The RMSEA for all modalities were acceptable fits with estimates of less than 0.08.

Results

The descriptive statistics results showed perceptual preference for medical nursing \((n=18)\) as follows: Print 3.11, \(SD\) 10.14, Aural 4.38, \(SD\) 10.33, Interactive 7.27, \(SD\) 8.49, Visual -2.11, \(SD\) 8.73, Haptic 3.33, \(SD\) 11.08, Kinesthetic 10.88, \(SD\) 12.95, and Olfactory -24.44, \(SD\) 8.73. Surgical nursing \((n=14)\) results were: Print -3.78 \(SD\) 12.36, Aural 4.5, \(SD\) 9.62, Interactive 9.35, \(SD\) 7.48, Visual, 2.64, \(SD\) 6.03, Haptic 7.78, \(SD\) 9.36, Kinesthetic 11.85, \(SD\) 15.40, and Olfactory -21.21, \(SD\) 9.59. Critical Care nursing \((n=37)\) results were: Print 6.08, \(SD\) 12.41, Aural 0.56, \(SD\) 11.22, Interactive 5.70, \(SD\) 8.86, Visual 2.89, \(SD\) 8.51, Haptic 6.68, \(SD\) 9.01, Kinesthetic 1.75 \(SD\) 14.83, and Olfactory -20.56, \(SD\) 11.35. Those preferring Women/Children nursing \((n=8)\) were: Print -.12, \(SD\) 13.05, Aural 3.75, \(SD\) 12.15, Interactive 10.50, \(SD\) 6.14, Visual -.87, \(SD\) 6.03, Haptic 5.50, \(SD\) 10.07, Kinesthetic 1.50, \(SD\) 12.82, and Olfactory -17.50, \(SD\) 3.96.

A one-way Multivariate Analysis of Covariance (MANCOVA) was conducted to determine the effect of perceptual modality learning preference on the preferred area of clinical practice for the 77 practicing registered nurses (RN) while controlling for years of experience. According to the analysis of data there appears to be no relationship between a preferred clinical practice area and preferred perceptual modality learning style of registered nurses after controlling for experience.

Nursing is a profession in which ongoing learning is required (Gallagher, 2006). There are continual advances in the treatment of disease processes as well as preventive healthcare. In addition, innovations in existing equipment along with development of new equipment to improve patient care are constantly being brought into the workplace with the expectation that incumbent nursing staff become proficient in the utilization of such equipment. Most healthcare organizations have an entire department dedicated to the ongoing education and development of its nursing workforce. Therefore, an understanding of how the practicing registered nurse learns is an important concept in the care of patients. Little research has been conducted on the learning styles of practicing registered nurses. The studies conducted have primarily looked at the learning styles of professional nursing students (Colucciello, 1999; Rakoczy & Money, 1995; Worrell & Profetto-McGrath, 2007).
No studies were found that specifically looked at the perceptual modality learning style of either nursing students or practicing registered nurses. This study specifically looked at nurses’ stated preferred area of clinical practice and their self-reported learning modality preference. The results of this study suggest there is no significant relationship between the preferred area of clinical practice of a registered nurse and their preferred perceptual modality learning style.

This finding indicates that, as a group, professional nurses are varied in their perceptual modality style preference. This is a significant finding for the educator of practicing nurses. This result indicates varied methods should be utilized in the ongoing education and development of staff. This is consistent with the finding of Morse, Oberer, Dobbins, & Mitchell (1998). These educators noted that by making multiple learning modalities available for in-service programs, learners (registered nurses) who had previously been listless and inattentive became revitalized and eager to learn the material presented.

Recommendations

This study examined the relationship between the preferred area of clinical practice of registered nurses and their preferred perceptual modality learning style. The results of this study suggest there is no relationship between the areas of interest. This finding suggests that practicing registered nurses (RN) have varying learning style preferences across the preferred areas of medical, surgical, critical care, and women/children nursing. Additional studies are needed to further evaluate the learning styles of practicing registered nurses. Derived from the findings of this study, future research might: 1. Replicate the study to examine a variety of health care disciplines; 2. Replicate this study using a multi-site sample to increase the validity and reliability of the study; 3. Replicate this study to compare results of the Perceptual Modality Preference Survey (PMPS) with a cognitive learning styles instrument; 4. Conduct the study using a cognitive learning style instrument only; 5. Include gender, ethnicity as additional variables.

Keefe (1987) indicated that learners vary in their preference of learning styles. It is important for those responsible for teaching practicing nurses to understand that they may have to employ a variety of teaching styles to achieve maximum effectiveness when working with this population. Based on the results of this study and review of the literature, organizations should revise their obligations to their professional nursing staff and evaluate their accountability for determining and utilizing a variety teaching styles to meet the complex needs of registered nurses.
References


**Author’s Notes**
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