The Relationship Between Marginality and Minority Status in Undergraduate Nursing Students

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Purpose: Research conducted over the last several decades suggests that the nursing workforce remains largely Caucasian and female; as such, there is a strong probability that nurses will not be concordant with the diverse U.S. population they serve (AHRQ, 2012; IOM, 2011). The fact that the nation’s healthcare professionals are not culturally concordant with the populations they serve has been shown to be a more significant cause of health disparities than the lack of health insurance for millions of Americans (AHRQ, 2012; Levesque, 2015). The homogeneity of the nursing profession is largely a direct result of the significantly higher attrition rates that minority nursing students experience when compared to non-minority students (Loftin, Newman, Dumas, Gilden, & Bond, 2012; McDermott-Levy, 2011; Shelton, 2012). The purpose of this study was to investigate the relationship between marginality and minority status in undergraduate nursing students enrolled in one of the four universities in XXXX that offer a baccalaureate nursing program.

Methods: A non-experimental, descriptive correlational design was used for data collection. Participants (n= 331) completed a demographic survey and marginality was measured using the Koci marginality Index-70. The demographic variables of race/ethnicity, sexual orientation, gender, and age were investigated in relation to marginality.

Results: Results indicate that there was a statistically significant difference in mean scores for minority (M= 177.5, SD= 29.3) versus non-minority undergraduate nursing students (M= 166.4, SD= 18.1); t(329)= 4.3, p < .001. Furthermore, racial/ethnic minorities scored significantly higher on the KMI-70 (M= 199.1, SD= 27.4) when compared to non-minority participants (M= 166.3, SD= 27.4); t(329)= -9.9, p ≤ .001. Further analysis of race/ethnicity revealed that participants who identified as ENNL reported higher marginality scores (M= 186.9, SD= 33.6) when compared to scores obtained from participants whose primary or native language is English (M= 170.3, SD= 23.2); t(329)= -2.4, p= .037. A t-test was also computed to determine if sexual minorities experience higher levels of marginalization than non-minorities. Results did not reveal any statistically significant differences between sexual minority (M= 178.8, SD= 33.7) and non-minority participants (M= 170.3, SD= 23.0); t(328)= -1.5, p = .112 with regard to KMI-70 scores.

A t-test was computed to determine if male participants experience higher levels of marginalization than female participants. Results suggest that there was no statistically significant difference in mean scores for male participants (M=166.1, SD= 25.6) versus female participants (M=171.6, SD= 23.5); t(329)= -1.4, p= .428.

A t-test was conducted to evaluate differences in mean scores for traditional-aged and non-traditional-aged participants. Results indicate that there was no significant difference in KMI-70 scores for non-traditional participants (M= 166.9, SD= 19.8) when compared to traditional-aged participants (M=171.8, SD= 24.6); t(329)= 1.5, p= .111. A one-way ANOVA was then conducted to investigate further the differences in mean scores between the different age groups with regard to KMI-70 scores. Results indicate that there is no significant difference in marginality scores between participants with respect to age, F (4,326) = .63, p= .640. Results of the ANOVA are presented in Table 4.

Conclusion: Despite the fact that a great deal of attention has been placed on diversifying the nursing profession, the field remains very homogenous with regards to race, gender, and sexual orientation. The findings from this research study suggest that marginalization remains a significant issue for minority students throughout their nursing education. The continued homogeneity of the nursing profession has
implications for the health of the U.S. population as well. Despite decades of attending to both the cultural
capacity of health care providers and diversity of healthcare clients, minimal inroads have been made
using cultural competency to address health disparities (Drevdahl et al., 2008; Truong et al., 2014). As
population demographics continue to shift rapidly, it is imperative that the field of nursing better represent
the individuals for which they are caring.

Title:
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**Abstract Summary:**

The study investigated the relationship between marginality and minority status in undergraduate nursing students enrolled in a baccalaureate program in Wisconsin. The results of this study will be compared to results obtained from a pilot study that investigated marginality and minority status in undergraduate nursing students in Texas.

**Content Outline:**

I. Problem of Study
   A. Diversity and Healthcare
      1. The U.S. Population is increasingly diverse with regard to a number of variables including race/ethnicity, sexual orientation, and age (U.S. Census Bureau, 2015).
      2. Glaring disparities in quality of healthcare persist, especially for racial, ethnic, and sexual minorities Institute of Medicine [IOM], 2011).
      3. Registered Nurses (RNs) are essential to the many dimensions of health care and provide the most direct care to patients.
      4. Given the integral and expansive role that RNs play within the realm of healthcare, it is posited that increasing the diversity of the nursing profession would improve the overall health of the nation (IOM, 2002; 2011)
B. Diversity and Nursing

1. Research conducted over the last several decades suggests that the nursing workforce remains largely homogenous in regard to race and ethnicity with 83.2% identifying as being Caucasian, Non-Hispanic (Health Resources and Services Administration [HRSA], 2010).

2. The homogeneity of the nursing profession extends to gender as well only 9.1% of the RNs licensed in the U.S. are male (U.S Census Bureau, 2013).

3. It is argued that the LGBTQ community remains one of the largest minority groups within the nursing profession (National League for Nursing, 2016; Randall & Eliason, 2012). Unfortunately, limited data are available to accurately determine how many RNs in the U.S. identify as LGBTQ.

4. The homogeneity of the nursing profession is largely a direct result of the significantly higher attrition rates that minority nursing students experience when compared to non-minority students (Loftin, Newman, Dumas, Gilden, & Bond, 2012; McDermott-Levy, 2011).

5. Many of the barriers identified in the research related to the high attrition rates of minority nursing students from undergraduate nursing programs are strongly correlated with the process of marginalization (Hall, Stevens, & Meleis, 1994; 1999; McDermott-Levy, 2011).

II. Rationale for Study

A. It is believed that increasing the diversity of the nursing profession will improve the overall health of the nation (Agency for Healthcare Research and Quality [AHRQ], 2012; IOM, 2002; 2011).

B. Due to the homogeneity of the nursing profession, there is a strong probability that nurses will not be concordant with the diverse U.S. population they serve (AHRQ, 2012; American Association of Colleges of Nursing [AACN], 2015).

C. The fact that the nation’s healthcare professionals are not culturally concordant with the populations they serve is believed to be a more significant cause of health disparities than the lack of health insurance for millions of Americans (AHRQ, 2012; IOM, 2002; 2011).

D. Despite the increased attention and emphasis on diversifying the nursing profession, gaps remain in the existing body of literature.

1. The vast majority of research conducted on barriers to the successful completion of nursing programs has been generated using qualitative
methodology. Investigating this topic using quantitative methods may serve to expand the body of existing knowledge in this area and perhaps yield new insights about this longstanding issue.

2. Although feelings of marginalization have been found to be a barrier in a number of qualitative studies, the concept has not been investigated as an independent phenomenon in undergraduate nursing students.

3. Much of the research conducted on the personal, social, and institutional barriers that racial/ethnic minority students face while navigating through an undergraduate nursing program have been conducted in geographic areas that are more racially diverse than Wisconsin (Bond et al., 2008; Del Prato, 2013; McWha, 2013; Rivera-Goba & Nieto, 2007; Sanner & Wilson, 2008; Wong, Seago, Keane, & Gumbach, 2008).

III. Pilot Study

A. The KMI-70 (Koci, 2004) had not been used to evaluate marginalization in the nursing student population.

B. The purpose of the pilot study was to evaluate the psychometric properties of the KMI-70 using baccalaureate undergraduate nursing students enrolled at Texas Woman’s University (TWU). TWU is where the principal investigator was enrolled as a doctoral student.

C. The target population for the pilot study was all undergraduate nursing students currently enrolled full-time or part-time in a baccalaureate nursing program at either the Dallas or Houston campus.

D. A total of 191 participants comprised the research sample and were included in the final data analysis.

1. 52.4% White or Caucasian

2. 91.9% female

3. 57.1% between the ages of 18 and 24

4. 81.7% reported English as primary or native language

5. Data about sexual orientation was collected in pilot study; that variable was added for dissertation.
E. Results of the pilot study indicated that the KMI-70 has strong internal consistency reliability (Coefficient alpha= .95), which is consistent with findings from other studies (Koci, McFarlane, Gilroy, & Maddoux, 2012).

F. Additional findings of the study (marginality and minority status) can be added as necessary.

IV. Current Study Part 1 (Dissertation)

A. The purpose of this study was to investigate the relationship between marginality and minority status in undergraduate nursing students.

B. Quantitative methodology measuring marginalization with the Koci Marginality index-70 (KMI-70) was conducted in the four University of Wisconsin system schools that have undergraduate nursing programs.

C. The definition of “minority student” was broadened to include not only racial/ethnic and gender minorities, but LGBTQ students, and non-traditional students (i.e. 25 years of age or greater) as well.

D. A convenience sample of 331 participants enrolled at one of the four target universities in Wisconsin was used in the study.

1. 86.4% White or Caucasian
2. 87.0% female
3. 81.3% between the ages of 18 and 24
4. 96.4 reported English as primary or native language
5. 93.7% identified as heterosexual

E. Findings

1. The KMI-70 was found to have strong internal consistency reliability (Coefficient alpha= .954), which is consistent with findings from both the pilot study (Coefficient alpha= .948) and previous studies (Koci, 2004; Koci et al., 2012).

2. A series of independent-samples t-tests were conducted to evaluate differences in mean scores on the KMI-70 in relation to the demographic variables of interest.

3. Results indicate that there was a significant difference in mean scores for minority ($M= 177.5$, $SD= 29.3$) versus non-minority students ($M= 166.4$, $SD=$
18.1); \( t(329)= 4.3, p < .001 \). The represents more than a 30 point difference in mean scores.

4. When compared to the mean scores obtained from participants in the pilot study, racial/ethnic minority students scored an average of 40.5 points higher (\( M=199.1 \)) than those scores obtained from racial/ethnic minority students in in the pilot study (\( M= 158.6 \)).

   a. A one-way ANOVA was then conducted to investigate further the differences in mean scores between the various racial/ethnic groups with regard to KMI-70 scores.

   b. While there was a significant difference in mean scores for all racial/ethnic groups when compared to non-minority participants, \( F(2,326) = 29.05, p < .001 \), results indicate no significant differences in mean scores between racial/ethnic groups.

   c. Further analysis of race/ethnicity revealed that participants who identified as ENNL reported higher marginality scores (\( M= 186.9, SD= 33.6 \)) when compared to scores obtained from participants whose primary or native language is English (\( M= 170.3, SD= 23.2 \)); \( t(329)= -2.4, p=.037 \).

5. Results did not reveal any statistically significant differences between sexual minority (\( M= 178.4, SD= 33.7 \)) and non-minority participants (\( M= 170.3, SD= 23.0 \)); \( t(328)= -1.5, p = .112 \) with regard to KMI-70 scores.

   a. The majority of LGBTQ participants included in the study identified as being bisexual (\( n=11 \)); given the fact that a bisexual person is, by definition an individual who is sexually attracted to both men and women, it was hypothesized that being sexually attracted to individuals of the same sex and the opposite sex may impact marginality scores.

   b. A second t-test was performed to investigate the differences in mean scores between lesbian (\( n=4 \)), gay (\( n=4 \)), or “other” (\( n=1 \)) participants and those individuals who did not belong to a sexual minority (\( n=310 \)).

   c. Results revealed a significant difference between marginality scores for sexual minority participants when bisexuals were excluded (\( M=183.6, SD= 51.2 \)) versus those individuals who identified as heterosexual (\( M= 170.4, SD= 23.1 \)); \( t(317)= -1.5, p < .001 \).

6. Results suggest that there were no statistically significant differences in mean scores for male participants (\( M=166.1, SD= 25.6 \)) versus female participants (\( M=171.6, SD= 23.5 \)); \( t(329)= -1.4, p = .428 \).
7. Results indicate that there was no significant difference in KMI-70 scores for non-traditional participants ($M = 166.7, SD = 19.8$) when compared to traditional-aged participants ($M = 171.8, SD = 24.6$); $t(329) = 1.5, p = .111$.

   a. A one-way ANOVA was then conducted to investigate differences in mean scores between the different age groups with regard to KMI-70 scores. Results indicate that there is no significant difference in marginality scores between participants with respect to age, $F(4,326) = .629, p = .642$.

F. Implications

1. **Race/Ethnicity**: One factor that may have influenced the large difference in mean scores between racial/ethnic minority and non-minority students in Wisconsin is that fact that Wisconsin is a very racially homogenous state relative to other geographic areas of the United States.

   a. According the U.S. Census Bureau (2015), 83.3% of Wisconsin residents identified as Non-Hispanic White, whereas 45.3% of residents of Texas are Non-Hispanic White. The racial/ethnic heterogeneity found Texas is mirrored at the national level as well with only 61.6% of U.S. population belonging to the category of Non-Hispanic White (U.S. Census Bureau, 2015).

   b. Perhaps students who reside in racially homogenous geographical areas and attend nursing programs with an overwhelmingly White student body may feel increased levels of marginalization.

2. **LGBTQ**: The findings obtained from the following two studies may help explain why the LGBTQ participants were not significantly different from the non-minority participants as the majority of the sample ($n = 11$) identified as bisexual.

   a. Bradford (2004) conducted a qualitative study to investigate how bisexual individuals experience cultural attitudes towards bisexuality and how these experiences have affected their self-concept. Twenty self-identified bisexual individuals (10 male and 10 female participants) were interviewed. Respondents reported feeling that they lived a dichotomous life, existing in both the “gay” and “straight” cultures. Similarly, participants stated that they felt their sexuality was somewhat invisible to society unless they made it a point to talk about it with others (Bradford, 2008).

   b. The Pew Research Center (2013) conducted a survey of 1,197 adults who self-identified as belonging to the LGBTQ community. Results of the study suggest that bisexual individuals differ from gay and lesbian individuals in a number of respects. For example more than 77% of gay males ($n = 398$) and 71% of lesbians ($n = 277$) reported that the majority of the most important individuals in their lives were aware of their sexual orientation, compared to only 28% of
bisexual participants ($n=479$). Furthermore, approximately 50% of gay men and lesbians indicated that their sexuality was very or extremely important to their identity, whereas only 24% of bisexual participants reported similar feelings.

3. **Gender:**

a. Although not statistically significant, the KMI-70 scores for females were, on average, five points higher ($M=171.6$) than those scores obtained from male participants ($M=166.1$).

b. The higher mean scores for female participants may stem from the fact that gender inequalities continue to exist in society.

c. Koci (2004) developed a marginality scale based on specific scales from the Minnesota Multiphasic Personality Inventory-2 (MMPI-2).

d. The MMPI-2 is a broad-based test designed to assess a number of major patterns of personality, emotional, and behavioral disorders (Hathaway & McKinley, 1989).

e. Personality traits are defined as “the relatively enduring patterns of thoughts, feelings, and behaviors that distinguish individuals from one another” (Roberts, Wood, & Caspi, 2008, p. 375).

f. If females are exposed to gender inequalities and marginalization since birth (Klasen & Lamanna, 2009; Williams, 2013) such prolonged exposure may significantly impact a person’s personality.

g. Males are not considered a gender minority in the vast majority of social situations; therefore, the short interval of exposure to marginalization in nursing programs may not be enough in severity, duration (or both) to alter their personality appreciably.

4. **Age:**

a. What is noteworthy is that, although not statistically significant, the mean score for traditional-aged students was higher ($M=171.8$) than what was found for non-traditional students ($M=166.7$).

b. This finding is supported in the pilot study, which also found mean scores on the KMI-70 to be higher for participants 18-24 years of age ($M=161.6$, $SD=23.7$) when compared to non-traditional students ($M=148.4$, $SD=24.2$). It did reach statistical significance in that study.

c. Research suggests that, when compared to traditional-aged students, non-traditional aged students tend to be more self-confident and motivated to endure
the stressors associated with the nursing program (Kenny, Kidd, Nankervis, & Connell, 2011). Research also suggests that non-traditional aged students believe that their cumulative life experiences better qualify them to cope with the stressors associated with nursing school (Montgomery, Tansey, & Roe, 2009).

V. Current Study Part 2 (Second study)

A. The purpose of this study was to collect demographic data on all faculty teaching full time, part-time or adjunct in the college of nursing at the four UW-system universities that offer baccalaureate nursing programs: The universities of Eau Claire, Madison, Milwaukee, and Oshkosh. This data will be compared to the demographic data that will also be collected at the three Texas Woman's University campuses: Houston, Denton, and Dallas campuses.

1. This follow-up study investigated the potential differences in nurse educator faculty demographics with regard to race/ethnicity, gender, age, and sexual orientation and how these differences may have impacted the marginality reported by the students.

2. Wisconsin is a very racially homogenous geographic area (i.e. Caucasian) whereas Texas is more racially and ethnically diverse; perhaps these differences play a role in the marginality felt by undergraduate nursing students.

   a. Results of the study yield significant differences in the demographics for nurse educator faculty in the two states (Wisconsin and Texas).

   b. There were also differences between the the UW system schools and Texas Woman’s university with regard to resources available to minority students.

3. Results indicate that faculty demographics for Wisconsin and Texas were significantly different with regard to race/ethnicity. There were a number of other differences between the two groups including level of awareness and use of campus resources specific to racial and ethnic minorities, as well as the number of hours spent mentoring minority nursing students.

VI. Recommendations

A. Studies should be performed with undergraduate students enrolled in baccalaureate programs located in geographical areas characterized by varying degrees of racial and ethnic diversity.

   1. 40-point difference in KMI-scores for racial/ethnic minority students when comparing Texas and Wisconsin
2. Investigate the role that state racial/ethnic demographics, social norms, and regional culture play in marginality (Wisconsin is racially/ethnically homogenous whereas Texas is heterogeneous in the respect.

B. Studies should be conducted using varied student populations
1. Baccalaureate versus Associate degree students
2. Graduate students
3. The study did not capture and international students
4. LGBTQ students

C. Development of marginality tool that is a more effective means by which to gather data from this population (the PIT is currently developing a marginality tool).
1. KMI-70 is 70-items
2. Length of tool makes correlational research more difficult (high attrition)
3. A tool not based on personality indicators, but rather speaks more specifically to the personal, social, and institutional variable that qualitative research have found to be barriers.

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Professional Experience: 2017-current--Assistant Professor, College of Nursing, University of Wisconsin Oshkosh, Oshkosh, Wisconsin 2010-2017--Instructional Academic Staff, College of Nursing, University of Wisconsin Oshkosh, Oshkosh, WI Conducted a study that investigated marginality and minority status in undergraduate nursing students in Texas. Conducted study that investigated marginality and minority status in undergraduate nursing students in Wisconsin Currently developing a marginality tool for nursing students.

Author Summary: Dr. Heather Englund is an Assistant Professor in the College of Nursing at the University of Wisconsin Oshkosh. Prior to completion of her PhD in August 2017, she worked as Instructional Academic Staff in the College of Nursing at the University of Wisconsin Oshkosh from 2010 until August of 2017.