University of Missouri, St. Louis

IRL @ UMSL

Dissertations

UMSL Graduate Works

7-10-2020

Diversity in Pre-nursing Majors and Nursing Program Applicants

Christel Fehr University of Missouri-St. Louis, cfktb@umsystem.edu

Follow this and additional works at: https://irl.umsl.edu/dissertation



Part of the Other Nursing Commons

Recommended Citation

Fehr, Christel, "Diversity in Pre-nursing Majors and Nursing Program Applicants" (2020). Dissertations.

https://irl.umsl.edu/dissertation/951

This Dissertation is brought to you for free and open access by the UMSL Graduate Works at IRL @ UMSL. It has been accepted for inclusion in Dissertations by an authorized administrator of IRL @ UMSL. For more information, please contact marvinh@umsl.edu.

Diversity in Pre-nursing Majors and Nursing Program Applicants

Christel D. Fehr

M.S. Nursing, Southeast Missouri State University, 2012 B.S. Nursing, Central Methodist University, 2009

A Dissertation Submitted to The Graduate School at the University of Missouri-St.

Louis

in partial fulfillment of the requirements for the degree

Doctor of Nursing Practice

August 2020

Advisory Committee

Laura Kuensting, DNP, APRN, PCNS-BC, CPNP, CPEN.
Chairperson

Carla Beckerle, DNP, APRN, AGNP-BC

Michele Tanz, DNP, APRN, FNP-BC

Abstract

Problem: The population of the US has become increasingly ethnically diverse. This diversity has not been reflected in the nursing workforce with approximately 70% being Caucasian and 85% being female, resulting in a disparity in healthcare delivery by minorities. The purpose of this project was to perform an analysis of race, ethnicity, and gender diversity in undergraduate nursing applicants at a rural midwestern university.

Method: A retrospective review of nursing applications, enrollment reports, and graduation rates were examined for three academic years.

Results: 326 students (N=326) applied to the nursing program from Fall 2016 through Spring 2019. Of those 58.6% (n=191) were admitted, and 66% (n=64) of those admitted from Fall 2016 through Fall 2017 graduated from the program. Statistical analysis with a Fisher's exact test found no significant difference between gender and admission for Fall 2016 (p=1.00, OR=1.920), Fall 2017 (p=1.00, OR=1.467), Spring 2018 (p=0.391, OR=3.077), and Fall 2018 (p=1.00, OR=0.800). Statistically significant results were found for Spring 2017 (p=0.018, OR=0.165) and Spring 2019 (p=0.011, OR=11.077). No significant difference was found between gender and graduation for students admitted Fall 2016 (p=0.358, OR=0.389), Spring 2017 (p=0.295, OR=0.667), and Fall 2017 (p=0.627, OR=0.579). No significant difference was found between ethnicity and admission for Fall 2016 (p=0.570, OR=0.743), Spring 2017 (p=0.549, OR=0.283), Fall 2017 (p=1.000, OR=0.688), Spring 2018 (p=0.293, OR=0.207), Fall 2018 (p=0.647, OR=0.506), and Spring 2019 (p=0.359, OR=0.250). No significant difference was found between ethnicity and graduation for students admitted Fall 2016 (p=1.000, OR=0.667), Spring 2017 (p=1.000, OR=0.700), and Fall 2017 (p=1.000, OR=0.600).

Implications for Practice: Strategies identified in a strategic plan should be implemented to increase gender and ethnic diversity among applicants to the nursing program.

Keywords: Nursing Students, Nursing Applicants, Diversity, Gender, Ethnicity, Race

the nursing profession.

Diversity in Pre-Nursing Majors and Nursing Program Applicants

The population in the US has become increasingly racially and ethnically diverse.

The US is predicted to become a majority-minority nation by 2043 for the first time in history (Phillips & Malone, 2014). Diversity in the general population for gender is minimal, with 51% reported as biological females and 49% as biological males (National League for Nursing [NLN], 2016). The diversity in the registered nurse (RN) workforce is not reflective of the racial, ethnic, and gender diversity in the national population. In 2013, the nursing population was 83% non-Hispanic Caucasian and 17% non-Caucasian (NLN, 2016). This contrasts with the general population in 2013 which was 77.7% non-Hispanic Caucasian and 22.3% non-Caucasian (NLN, 2016). Furthermore, nursing is predominantly a female profession (93%) with only 7% reported as biologically male (NLN, 2016). The inconsistency when comparing the nursing workforce to the general population is present for race and ethnicity, but for gender, a wide gap is displayed within

One public midwestern university had a student population of nearly 12,000, with a racial and ethnically diverse population of about 2,400 (20%). In addition, 7,100 (59.5%) identified as female and 4,800 (40.5%) identified as male (Southeast Missouri State University [SEMO], 2018). Those admitted to the pre-licensure baccalaureate nursing program included 6% from diverse racial or ethnic backgrounds and approximately 12% for the male gender. These numbers were below the total numbers of diversity in the overall student population regardless of a blinded admissions process to race, ethnicity, and gender for the nursing school.

The purpose of this project was to perform an analysis of race, ethnicity, and gender diversity in the pre-nursing and undergraduate nursing applicants at a midwestern, rural university. The aim of the project was to develop specific strategies for increasing the racial, ethnic, and gender diversity of the students accepted, and who graduate from the undergraduate nursing program after baseline information was obtained. The outcome measures for study were the number of racial, ethnic, and gender diverse students who applied to the undergraduate nursing program and who were admitted and graduated from the program. The questions for study were:

With a blinded admissions process from fall 2016 to spring 2019,

- 1. What was the likelihood of applicants to the undergraduate nursing program having racial, ethnic, or gender diversity compared to non-Hispanic white female applicants being admitted into the program?
- 2. What was the likelihood of those admitted to the undergraduate nursing program with racial, ethnic, or gender diversity compared to non-Hispanic white female students to graduate from the program?

Review of the Literature

A literature search was conducted using the databases of CINAHL, PubMed and PsychINFO. Search terms included: minority AND nursing students; minority AND nursing students OR student nurses OR undergraduate student nurses; minority AND nursing education; minority AND pre-licensure; minority students AND nursing; diversity AND nursing students OR student nurses OR undergraduate student nurses; gender AND nursing students; gender AND nursing education; and gender AND nursing. Inclusion criteria were publications from 2008 to 2018, age > 18-years, studies conducted

within the US, published in English, and pre-licensure baccalaureate nursing programs. Exclusion criteria were studies with students <18-years of age, did not include pre-licensure baccalaureate nursing programs, and non-English publications.

There is disparity in health care received by minorities. The Institute of Medicine (IOM, 2002) and Sullivan Commission (2004) have identified racial and ethnic minorities to be less likely to receive routine medical care; and they experience a lower quality of health services than those of the non-Hispanic white population. Racial and ethnic minorities have had a greater morbidity and mortality than their non-Hispanic white counterparts (IOM, 2002; Sullivan Commission, 2004; White et al., 2014). In addition, health disparities remained despite controlling for socioeconomic factors (IOM, 2002). The IOM (2002) report identified language barriers as contributing factors to poor adherence by minorities in accessing health care and for taking prescribed medical regimens for chronic diseases.

While minority health professionals were more likely to be employed in minority and medically underserved communities, their services are needed in all communities (Sullivan Commission, 2004; White et al., 2014). Several reports recommended an increase in the number of minority health care providers as a method for decreasing some of these health disparities and resulting outcomes for overall population health (IOM, 2002; Sullivan Commission, 2004; White et al., 2014). Hence, those who are in a racial or ethnic minority experienced an increase in healthcare disparity and poorer health outcomes in the general healthcare system when care was delivered by those not of a relatable race or ethnicity.

7

Despite reports in disparities for minority patients and healthcare professionals, there is a continued lack of progress in the enrollment of racial and ethnic minorities in nursing programs. In 2003, less than 30% of students enrolled in nursing programs were from ethnic minorities (NLN, 2014). At that time, 14.5% were African American; 6.4% were Hispanic; 4.9% were Asian or Pacific Islander; and 1.2% were American Indian (NLN, 2014). While there was an increase in the number of ethnic minority students to approximately 30%, the increases in enrollments were minor or even decreased by 2014 with 12.2% African American students, 8.1% Hispanic, 5.9% Asian or Pacific Islander, 1.5% American Indian, and 7.5% were other or unknown (NLN, 2014). In a more recent study, these numbers remained essentially unchanged in 2016 (NLN, 2016). In 2006, the percentage of males enrolled in BSN programs was 9.77% (Carnevale & Priode, 2018). This population increased to 15% in 2014 and remained unchanged in 2016 (NLN, 2014, 2016).

Most of the literature reviewed concerning race and ethnicity related to strategies for increasing diversity among nursing applicants were case studies related to specific programs implemented by various universities. The universities found who implemented programs to increase the diversity of students accepted into their nursing programs included: Duke University's School of Nursing, Hunter College School of Nursing, California State University Fullerton School of Nursing, and Western Carolina University School of Nursing (Carter, Powell, Derouin, & Cusatis, 2015; Degazon & Mancha, 2012; Latham, Singh, Lim, Nguyen, & Tara, 2016; Metcalfe & Neubrander, 2016). Each of these programs reported an increase in the number of students from underrepresented minority students accepted into and of whom matriculated from the undergraduate

nursing programs (Carter et al., 2015; Degazon & Mancha, 2012; Latham et al., 2016; Metcalfe & Neubrander, 2016). Thus, when universities employed specific strategies to increase the diversity of their undergraduate nursing student populations enrollment and graduation rates proportionally increased.

An increase in the diversity of undergraduate nursing programs have been described within the context of various strategies. Loftin, Newman, Gilden, Bond, and Duman (2013) performed a systematic review to identify common interventions for improved recruitment, retention, and academic performance for underrepresented minority students in pre-licensure programs. These interventions included remedial and skill-building activities, technology support, tutorial support, mentoring activities, preprofessional level enrichment and recruitment activities, and increased financial aid through stipends and scholarships (Loftin et al., 2013). Recruitment activities were a common intervention including the recruitment from pre-professional educational programs (Carter et al., 2015; Murray, Pole, Ciarlo, & Holmes, 2016). Another common intervention involved a socialization program for incoming students (Carter et al., 2015; Degazon & Mancha, 2012; Latham et al., 2016). Mentoring and tutoring were frequently identified within the programs (Carter et al., 2015; Degazon & Mancha; 2012; Metcalfe & Neubrander, 2016). Finally, another commonly used intervention was increased financial support in the form of scholarships and stipends (Degazon & Mancha, 2012; Metcalfe & Neubrander, 2016).

While a lack of gender diversity has been noted in the nursing profession and among nursing students, most of the literature examined the experiences of males in nursing programs. Several themes which negatively impacted male students emerged

9

from these studies included exclusion, gender bias, and career expectations. Exclusion occurred when male nursing students were not allowed to observe or participate in the care of patients, such as in the labor and delivery department based on their gender (Belle-Schriber, 2008; Carnevale & Priode, 2018; Powers, Herron, Sheeler, & Sain, 2018). Gender bias has been observed by male nursing students related to textbook languages, instructor examples, and test questions referring to a nurse as she and her (Belle-Schriber, 2008; Carnevale & Priode, 2018; Powers et al., 2018). Male students have also observed nursing instructors, hospital staff, and physicians expecting the male nursing student to not work as a registered nurse, but instead to continue their education and become a nurse practitioner or certified registered nurse anesthetist (Belle-Schriber, 2008; Carnevale & Priode, 2018; Powers et al., 2018). Finally, males who were singled out in the classroom and clinical settings, and a lack of support from family members and friends for the decision to pursue a career in a predominantly female profession emerged as additional themes (Belle-Schriber, 2008; Powers et al., 2018). These negative themes in the experiences of male nursing students may impact their progression through a program of nursing.

In summary, key findings from this literature review included a lower quality of care and health outcomes when healthcare was delivered by those not of a relatable race, ethnicity, or gender. Nursing schools have not substantially increased the diversity in their student population to reflect community changes. When universities employed specific strategies to increase the diversity of their undergraduate nursing student populations, enrollment and graduation rates were proportionally increased. A variety of recruitment and retention strategies were used to increase the racial, ethnic and gender

diversity of students enrolled in nursing programs, but programs continue with gaps in these areas. Last, male students in nursing programs experience unique challenges during their course of study. A limitation of this literature review was most publications being of observational or qualitative design and small sample sizes. Gaps in the literature included a lack of studies regarding gender in providing healthcare, and studies examining gender in recruitment, enrollment, and graduation rates from nursing programs.

The Donabedian framework of structure-process-outcomes was used to evaluate the quality of health care (Ayanian & Markel, 2016). This framework is generally used to improve the quality of health care. This framework examines the administrative systems and settings or structure of systems, the components of care delivered or processes, and the recovery and survival or outcomes of a healthcare system (Ayanian & Markel, 2016). This project used the Donabedian framework of structure-process-outcomes to examine the application process, admission, and graduation rates for nursing students in developing strategies to improve diversity in race, ethnicity and gender for students applying to and accepted into a nursing program.

Method

Design

An observational, descriptive design utilizing a retrospective review of nursing applications, enrollment reports, and graduation rates from August 2016 through May 2019. A group of faculty and staff reviewed the data obtained from the retrospective review. In addition, the group developed a strategic plan to identify strategies for

improving recruitment and retention of racial, ethnic, and gender-related diverse populations into an undergraduate nursing program.

Setting

A midwestern, public university school of nursing located within a small, rural community. The university offered a traditional Bachelor of science in nursing (BSN) program and an online RN-BSN program. There were 20 faculty members to support the maximum of 140 students enrolled in the traditional BSN program annually and the maximum of 210 online RN-BSN completion program. Most of the students who have graduated from the program work at the two major hospitals or three community access hospitals in the area. Within the community is a hospital associated college of nursing offering a traditional or Licensed Practical Nurse (LPN) to RN associate of applied science degree and a traditional or accelerated RN-BSN completion program.

Sample

A convenience sample of potential and actual nursing students was obtained. Inclusion criteria for this project were \geq 18-years of age, nursing applicant or nursing major at the university from fall 2016 through spring 2019. Exclusion criteria for this project were those younger than 18-years of age, not a nursing applicant or nursing major, or who was not a student at the university during the three-academic-year period studied.

Procedures

A strategic planning group was utilized to evaluate the data and develop a plan to improve racial, ethnic, and gender diversity within the traditional undergraduate nursing program. The strategic planning group was comprised of five faculty and staff of the

university's department of nursing, including the director of the traditional undergraduate nursing program, the chair of the nursing Student Affairs Committee, the leader of the local Black Nurses Association, and another faculty member. The pre-nursing advisors were invited but declined to participate.

Data Collection and Analysis

The data collected in the retrospective review included include gender, race or ethnicity of nursing applicants, enrolled students, and graduated students for each semester during the study period. The data was obtained in collaboration with the Office of Institutional Research at the university and was deidentified prior to analysis.

Summary descriptive statistics, frequencies, and percentages were calculated. Fisher's Exact tests were used to identify statistical outcomes through the SPSS (Statistics 26) and Microsoft Excel programs.

Approval Processes

The university of study and the DNP committee approved this project. The project obtained institutional review board approval (IRB) from university of study and primary investigator's university with whom the project originated. There were minimal risks with this study as it was retrospective. Any potential risk included exposure of personal, identifying information.

Results

Between August 2016 and May 2019, there were a total of 326 students (N=326) who applied to the undergraduate BSN program. Of this group, none were excluded. The predominant race or ethnicity was Caucasian (n= 300, 92.02%), followed by African American (n = 14, 4.29%), Asian (n=5, 1.53%), Hispanic (n=5, 1.53%) and multiracial

(n=2, 0.61%). Gender was predominantly female (n=284, 87.12%) then male (n=42, 0.61%)12.88%) (See Appendices A, B, C, and D). A Fisher's exact test was conducted as the sample size was not large enough to meet the assumptions to perform a Chi-square test of independence, to determine if the variables of gender and admission; race/ethnicity and admission; gender and graduation; and race/ethnicity and graduation from the nursing program were independent for each cohort of students. Statistical analysis with a Fisher's exact test found no significant difference between gender and admission for fall 2016 (n= 40; p=1.00, OR=1.920), fall 2017 (n=58; p=1.00, OR=1.467), spring 2018 (n=51; p=0.391, OR=3.077), and fall 2018 (n=56; p=1.00, OR=0.800). Statistically significant results between gender and admission were found for spring 2017 (n=50; p=0.018, OR=0.165) and spring 2019 (n=71; p=0.011, OR=11.077). Statistical analysis with a Fisher's exact test found no significant difference between gender and graduation for students admitted fall 2016 (n=31; p=0.358, OR=0.389), spring 2017 (n=31; p=0.295, OR=0.667), and fall 2017 (n=34; p=0.627, OR=0.579). Statistical analysis with a Fisher's exact test found no significant difference between ethnicity or race and admission for fall 2016 (n=40; p=0.570, OR=0.743), spring 2017 (n=50; p=0.549, OR=0.283), fall 2017 (n=58; p=1.000, OR=0.688), spring 2018 (n=51; p=0.293, OR=0.207), fall 2018 (n=56; p=0.293, OR=0.207)p=0.647, OR=0.506), and spring 2019 (n=71; p=0.359, OR=0.250). Statistical analysis with a Fisher's exact test found no significant difference between ethnicity or race and graduation for students admitted fall 2016 (n=31; p=1.000, OR=0.667), spring 2017 (n=31; p=1.000, OR=0.700), and fall 2017 (n=34; p=1.000, OR=0.600).

Discussion

14

Most of the cohorts over the three academic year period had no apparent relationship between ethnicity/race and admission status, ethnicity/race and graduation status, or gender and graduation status. While many of the cohorts for gender and admission status appeared not to have a relationship between the two groups, there were two cohorts, spring 2017 and spring 2019 which had statistically significant results, though the results observed were contradictory. In the spring 2017 sample, 13 males applied to the nursing program but only 4 (30.8%) were admitted compared to the 27 (73.0%) of 37 female applicants to the program. For this cohort it was observed that males were less likely to be admitted to the nursing program. In the spring 2019 sample, the opposite was observed, of the 9 males who applied to the program 8 (88.9%) were admitted compared to the 26 (41.9%) of 62 females who applied. For this cohort males were more likely than females to be admitted to the nursing program. The difference between these two samples was likely due to factors outside of gender, such as overall grade point average or specific science course grade point average as these were the main indicators used to rank students for admission during the study period.

A group of nursing faculty reviewed the results of this study and developed a strategic plan, including a strengths-weaknesses-opportunities-threats (SWOT) analysis and strategies to improve the limited number of racial, ethnic, and gender diverse students who apply to, are admitted, and graduate from the undergraduate nursing program (See Appendix E). This group identified three strategic aims related to increasing racial, ethnic, and gender diversity in the nursing program. Strategic aims were to: first increase the gender diversity of nursing program applicants by 10% over the next three years; second increase the ethnic and racial diversity of nursing program applicants

by 10% over the next three years; and third decrease attrition of ethnic, racial, and gender diverse nursing program students by 10% over the next three years (See Appendix E).

The results of this project highlighted areas for further study. The percentage of racial, ethnic, and gender diverse students who apply to the nursing program is less than the national averages. Of the total sample of 326 students who applied to the nursing program during the study period only 12.9% were male and 7.98% were non-Caucasian. This is less than the 15% male gender and 35.2% non-Caucasian population rates observed nationally among nursing students in 2016 (NLN, 2016). An analysis of the racial, ethnic, and gender diversity of pre-nursing students who attend the university would be of benefit to determine the level of interest among pre-nursing students during the time pre-nursing courses are completed. If a higher percentage of racial, ethnic, and gender diverse students is found in the pre-nursing students, then further studies could be performed to determine the reasons why the students do not apply to the nursing program, providing the opportunity to identify potential barriers within the pre-nursing curricula and the application process.

Conclusion

This study examined the likelihood of applicants to the undergraduate nursing program having racial, ethnic, or gender diversity compared to non-Hispanic white female applicants being admitted into the program, and of those admitted, the likelihood of those from racial, ethnic, or gender diverse backgrounds graduating from graduating from the program compared to their non-Hispanic female peers in one midwestern, rural university. There was no apparent relationship found between ethnicity or race and admission status; ethnicity or race and graduation status; gender and admission status;

and gender and graduation status. The percentage of racial, ethnic, and gender diverse students who applied to an undergraduate nursing program over three academic years falls below the national average, indicating an area for improvement. This project discussed the aims developed in a strategic plan that could increase the percentage of racial, ethnic and gender diverse student who apply, are admitted, and graduate from an undergraduate nursing program at one midwestern, rural university.

References

- Ayanian, J. Z., & Markel, H. (2016). Donabedian's lasting framework for health care quality. *The New England Journal of Medicine*, *375*(3), 205 207. doi: 10.1056/NEJMp1605101
- Bell-Scriber, M. (2008). Warming the nursing education climate for traditional-age learners who are male. *Nursing Education Perspective*, 29(3), 143 150.

 Retrieved from

 https://journals.lww.com/neponline/pages/articleviewer.aspx?year=2008&issue=0

 5000&article=00009&type=abstract
- Carnevale, T., & Priode, K. (2018). "The Good Ole' Girls' Nursing Club": The male student perspective. *Journal of Transcultural Nursing*, 29(3), 285 291. doi: 10.1177/10436596177031
- Carter, B. M., Powell, D. L., Derouin, A. L., & Cusatis, J. (2015). Beginning with the end in mind: Cultivating minority nurse leaders. *Journal of Professional Nursing*, 31(2), 95 103. doi: 10.1016/j.profnurs.2014.07.004
- Degazon, C. E., & Mancha, C. (2012). Changing the face of nursing: Reducing ethnic and racial disparities in health. *Family & Community Health*, 35(1), 5 14. doi: 10.1097/fch.0b013e3182385cf6
- Institute of Medicine. (2003). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington DC: National Academy Press.
- Latham, C. L., Singh, H., Lim, C., Nguyen, E., & Tara, S. (2016). Transition program to promote incoming nursing student success in higher education. *Nurse Educator*, 41(6), 319 323.

- Loftin, C., Newman, S. D., Gilden, G., Bond, M. L., & Dumas, B. P. (2013). Moving toward greater diversity: A review of interventions to increase diversity in nursing education. *Journal of Transcultural Nursing*, 24(4), 387 396. doi: 10.1177/1043659613481677
- Metcalfe, S. E., & Neubrander, J. (2016). Social determinants and educational barriers to successful admission to nursing programs for minority and rural students. *Journal of Professional Nursing*, 32(5), 377 382. doi: 10.1016/j.profnurs.2016.01.010
- Murray, T. A., Pole, D. C., Ciarlo, E. M., & Holmes, S. (2016). A nursing workforce diversity project: Strategies for recruitment, retention, graduation, and NCLEX-RN success. *Nursing Education Perspectives*, 37(3), 138 143. doi: 10.5480/14-1480
- National League for Nursing. (2014). *NLN biennial survey of schools of nursing 2014*.

 Retrieved from <a href="http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/percentage-of-minorities-enrolled-in-basic-rn-programs-by-race-ethnicity-1995-2016-(pdf).pdf?sfvrsn=0
- National League for Nursing. (2016). Achieving diversity and meaningful inclusion in nursing education: A living document from the National League for Nursing.

 Retrieved from http://www.nln.org/docs/default-source/about/vision-statement-achieving-diversity.pdf?sfvrsn=2
- Phillips, J. M., & Malone, B. (2014). Increasing racial/ethnic diversity in nursing to reduce health disparities and achieve health equality. *Public Health Report*, *129*(Supplement 2), 45 50. doi: 10.1177/00333549141291S209.

- Powers, K., Herron, E. K., Sheeler, C., & Sain, A. (2018). The lived experience of being a male nursing student: Implications for student retention and success. *Journal of Professional Nursing*, 34(6), 475 482. doi: 10.1016/j.profnurs.2018.04.002
- Southeast Missouri State University. (2018). *Fast facts*. Retrieved October 10, 2018 from https://semo.edu/ir/facts.html
- The Sullivan Commission on Diversity in the Healthcare Workforce. (2004). *Missing persons: Minorities in the health professions*. Retrieved from https://depts.washington.edu/ccph/pdf files/SullivanReport.pdf
- White, K. M., Zangaro, G., Kepley, H. O., & Camacho, A. (2014). The Health Resources and Services Administration diversity data collection. *Public Health Report, 129* (Supplement 2), 51 56. Retrieved from https://www.hrsa.gov/sites/default/files/hrsa/health-equity/2017-HRSA-health-equity-report-PRINTER.pdf

Appendix A
Table 1
Demographic Characteristics of Applicants, Admissions, and Graduates of the Sample

Characteristic	Applicants $(n=326)$	%	Admissions $(n=191)$	%	Graduates $(n=64)$	%
Gender	(11 2 2 3)	, ,	(11 27 2)		(11 0 1)	
Male	42	12.88	27	14.14	9	14.06
Female	284	87.12	164	85.86	55	85.94
Ethnicity/Race						
African	14	4.29	8	4.19	1	1.56
American						
Asian	5	1.53	1	0.52	0	0
Hispanic	5	1.53	4	2.09	4	6.25
Multiracial	2	0.61	0	0	0	0
Caucasian	300	92.02	179	93.72	59	92.19

Note. Applicants and admissions included students who applied from Fall 2016 through Spring 2019. Graduates included students who were admitted to the program from Fall 2016 through Fall 2017 and graduated from Spring 2018 to Spring 2019.

Appendix B Figure 1. Nursing Program Applicants by Gender and Ethnicity

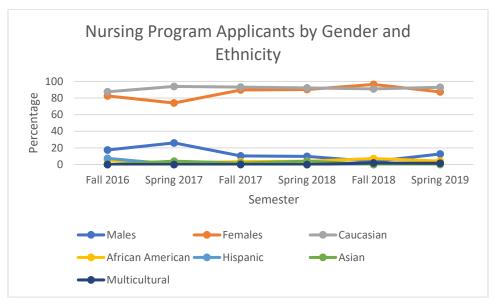


Figure 1. Percentage of nursing program applicants by gender and ethnicity between fall 2016 to spring 2019. The orange line illustrates the percentage of female applicants, the dark blue line illustrates the percentage of male applicants. The gray line illustrates the percentage of Caucasian applicants, the yellow line illustrates the percentage of African American applicants, the light blue line illustrates the percentage of Hispanic applicants, the light green line illustrates the percentage of Asian applicants, and the black line illustrates the percentage of multicultural applicants.

Appendix C
Figure 2. Nursing Program Admissions by Gender and Ethnicity

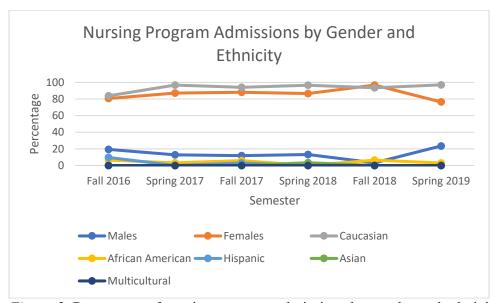


Figure 2. Percentage of nursing program admissions by gender and ethnicity between fall 2016 to spring 2019. The orange line illustrates the percentage of female admissions, the dark blue line illustrates the percentage of male admissions. The gray line illustrates the percentage of Caucasian admissions, the yellow line illustrates the percentage of African American admissions, the light blue line illustrates the percentage of Hispanic admissions, the light green line illustrates the percentage of Asian admissions, and the black line illustrates the percentage of multicultural admissions.

Multicultural

Nursing Program Graduates by Gender and Ethnicity 100 80 Percentage 60 40 20 0 Fall 2016 Spring 2017 Fall 2017 Semester Males Females -Caucasian African American — Hispanic Asian

Appendix D
Figure 3. Nursing Program Graduates by Gender and Ethnicity

Figure 3. Percentage of nursing program graduates by gender and ethnicity between fall 2016 to spring 2019. The orange line illustrates the percentage of female graduates, the dark blue line illustrates the percentage of male graduates. The gray line illustrates the percentage of Caucasian graduates, the yellow line illustrates the percentage of African American graduates, the light blue line illustrates the percentage of Hispanic graduates, the light green line illustrates the percentage of Asian graduates, and the black line illustrates the percentage of multicultural graduates.

Appendix E

Figure 4. Strategic Plan to Increase Diversity in Gender and Race/Ethnicity among Nursing Program Applicants and Nursing Students.

<u>Mission:</u> To prepare a group of professional nurses who exemplify the values of knowledgeable caring as they assist individuals, families, and their communities in reaching an optimum level of health and wellbeing.

<u>Purpose:</u> To increase the gender and ethnic/racial diversity of the students who apply, are accepted, and graduate from Southeast Missouri State University's undergraduate BSN program.

<u>Vision:</u> To create a diverse nursing workforce to improve the health of the global community.

Values:

- Diversity and a spirit of inclusiveness
- Educational opportunities
- ❖ A holistic approach to nursing education
- Competency and critical thinking
- Integrity
- Caring and compassion

SWOT Analysis:

Strengths:

- -Ethnically and gender diverse nursing department faculty and staff.
- -Low student to faculty ratio. 35:1 for classroom courses, maximum of 10:1 in clinical settings.
- -Simulation lab which is open to all students.
- -Faculty and department dedication to student success.
- -Regular review of admission policies.
- -Tutoring provided to students for no fee by the departmental graduate assistants.
- -Changes to the program and admissions are made based on the best available evidence.
- -Step-up programs and other out of classroom learning opportunities.

Weaknesses:

- -Lack of gender diversity amongst faculty.
- -Attrition of male and non-Caucasian students
- -History of known and unknown bias regarding ethnic and gender diversity in the nursing program (this is improving with changing faculty).
- -Previous admission policy which was bias toward students who could take courses multiple times to improve course grades and GPA.

Opportunities:

- -Area hospitals and other healthcare agencies who welcome students and provide excellent learning opportunities.
- -Residential hall nursing based residential learning communities.
- -Recent creation of a local chapter of the Black Nurse's Association.
- -University International Village

Threats:

- -Pre-nursing student perception of Anatomy and Physiology I & II courses as classes that "weed out" students from the nursing program. Idea that if unable to make an "A" in these classes they will not be accepted to the nursing program.
- -Pre-nursing advisors informing qualified students that the program is "too difficult" to be accepted into, so students choose not to apply.
- -Difficulty with hospital placements for practicum and student externships being cancelled.
- -Perception of nursing as a female only profession.
- -Male students not allowed into the room for OB clinical opportunities.

	-Partners/spouses not comfortable with having a male student observe a birthLimited opportunities for growth of the nursing program based on limited funding from the university and limited clinical sites.
--	--

Strategic Goals:

- 1. To increase the gender diversity of nursing program applicants by 10% over the next three years.
- 2. To Increase the ethnic/racial diversity of nursing program applicants by 10% over the next three years.
- 3. Decrease attrition of male and ethnic/racially diverse nursing program students by 10% over the next three years.

Specific Strategies to Implement to Achieve Strategic Goals:

- ❖ Perform an analysis regarding gender and ethnic/racial diversity of the prenursing majors to identify the amount of diversity in this group and do further analysis to determine if and where the students are being lost.
- ❖ Have nursing faculty be more involved in the First Step program to increase visibility and availability of faculty to pre-nursing students.
- * Review the non-English speaking student policy.
- ❖ Increase faculty and department involvement with the Residence Life Nursing Learning Community and International Village.
- * Encourage pre-nursing students to join the Student Nurses Association
- ❖ Host a health discipline major fair at the University Center to provide information to pre-nursing, health major, and undecided students.
- ❖ Volunteer to speak or present health programs for the multicultural fraternities, sorority, and other social groups.
- ❖ Collaborate with the University Diversity Community to develop other strategies.
- ❖ Create social media spotlights featuring ethnically and gender diverse alumni and students to be featured on the University's social media webpages.
- **Early** identification and remediation for student struggling in nursing courses.
- Create an easily accessible calendar for faculty to know when the graduate assistants are available for tutoring to encourage students to meet with tutors when they are struggling.