Supplemental Digital Content, Table 2: Presentation of Studies Matrix

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| **Citation** | **Study Purpose** | **Theoretical Framework** | **Study Design** | **Sample** | **Findings** |
| Alicea-Planas (2017) | Describe the lived experiences of the Hispanic nursing students including why students leave and what helps them persist | Tinto’s Theory of Student Integration | Husserlian Phenomenology | 10 Hispanic nursing students at small private religious university in Northeastern U.S., all female, 8 were born in the U.S. | Three main themes: a) *Journey into the Unknown* [including uncertainty and feeling unprepared academically]; b) *Creating a Culture of Acceptance* [including not feeling welcomed, having to commute, feeling isolated, finding comfort in others with similar backgrounds]; c) *Keeping on Course in Uncharted Territory* [including use of campus programs for first generation students and the need for enhanced tutoring]. Study identified the need for more social care, encouragement and cultural validation in addition to academic and financial supports. |
| Bond, Cason, & Baxley (2014). | Identify barriers and needed support for program completion as perceived by minority nursing students, identify barriers and needed support as perceived by nursing faculty and administrators, compare perceptions of students and faculty / administrators, and compare perceptions of Hispanic and African American students | Adapted Model of Institutional Support | Descriptive cross-sectional design using online questionnaire | 90 minority nursing students (Hispanic and African American), 80 nursing faculty, 31 nursing school administrators in Texas | Hispanic and African American student  perceptions were similar.  Hispanic students felt that seeking information about available financial support was more challenging, but perceived faculty as more interested in their professional growth and socialization.  Students perceived fewer scholarship opportunities than faculty perceived.  Students felt faculty were less available than faculty believed they were.  Students and faculty had similar perceptions about mentoring, academic advising and available technical support. |
| Bond, Gray, Baxley, Cason, Denke, & Moon (2008) | Identify barriers and supports to retention as perceived by Hispanic undergraduate nursing students | Adapted Model of Institutional Support | Descriptive qualitative approach using focus groups with theory guided content analysis | 14 Mexican-American undergraduate nursing students in Texas: 9 from a large, public, predominantly Caucasian university and 5 from a small, private, religious university serving minority students. Further sample characteristics not provided. | Theory guided content analysis revealed supports as well as barriers around the following themes: a) *Finances,* b) *Advising,* c) *Emotional and Moral Support,* d) *Mentoring and Professional Socialization,* e) *Technical Support, and* f) *Personal Determination*. |
| Diaz (2015)  (unpublished dissertation) | Identify and understand internal and external factors contributing to the success of Hispanic BSN students. | Harper’s Anti-Deficit Framework, Purnell’s Model for Cultural Competence, and Tinto’s Student Integration Model | Descriptive exploratory qualitative study with thematic analysis | 13 (12 female and 1 male) Hispanic / Latino nurses graduating in the last year from BSN nursing programs in Florida | *Internal* and *External* *Motivators*, as well as *Personal Traits* were identified that contributed to student success.  *Internal motivators*: being goal oriented, self-directed, knowledge seeking.  *External motivators*: positive reinforcement from social supports [family, friends, significant others, role models, community] & institutional support from staff, mentors, faculty  *Personal traits*: possessing increased self-esteem, self-worth, task-orientation. |
| Díaz, Sánchez, & Tanguma (2012) | Identify academic predictors of nursing academic success in the first academic course taken by nursing majors in a predominantly Hispanic school. | None cited | Quantitative exploratory study using logistic regression to assess the predictive value of a) Test of Essential Academic Skills (TEAS) scores, b) prerequisite grade point average (PGPA), c) ATI Critical Thinking assessment exam, and d) student profile characteristics on the success of students in their first Nursing Fundamentals course | 173 Hispanic / Latino nursing students (134 female, 40 male) in a predominantly Hispanic School of Nursing in Texas.  66% had English as their first language. | Predictive value of the independent variables varied according to gender. For males only the TEAS was statistically significant predictor for success in Nursing Fundamentals course, for females, both the TEAS and PGPA had statistically significant predictive value for success.  Most students passed the first fundamentals of nursing course (85% of males, 83.6% of females).  TEAS and PGPA were helpful in identifying at risk students. |
| Dolan, Young, Cesario, & Symes (2015) | Describe how Hispanic BSN students manage their academic activities to promote success during their first semester of nursing school | None- grounded theory | Qualitative study using focus groups and private interviews; grounded theory | 15 first semester nursing students with at least one parent of Hispanic origin; 12 female and 3 males, all English fluent and American citizens. All attending one BSN program at a public university in Texas. *Note*: Foreign born Hispanic students were excluded from this study. | Process identified including 4 phases: *Arrival; Managing; Evaluation;* and *Cyclical Behaviors*. Process lead to 4 potential outcomes- students performed well and maintained good study habits, students performed well and study habits slipped, unsuccessful students improved study habits and subsequent academic performance, or unsuccessful students did not improve study habits and continued to perform poorly. Challenges included learning the language of nursing in English, finances, family obligations and pressures, self-doubt, that success or failure had implications for entire family, and learning time management skills. Participants experienced anxiety and lack of confidence with taking exams, but empowerment when working with Spanish-speaking patients. |
| Evans (2008) | Describe perceptions of barriers to success identified by Hispanic / Latino and American Indian BSN students; compare and contrast with perceptions of barriers identified by Caucasian students | Theory of Human Caring | Descriptive qualitative design with semi-structured private interviews. | 12 Hispanic / Latino and 2 American Indian nursing students all from lower socio-economic backgrounds. This group was comprised of 12 female and 2 male; 18 Caucasian students (17 female, 1 male), all from more affluent backgrounds  Two private and two public colleges and universities in Washington as part of a consortium school.  Hispanic/Latino and American Indian students gave 36 interviews over a 3 year period; Caucasian students gave one interview each. | Themes included a) *Potential Occupations other than Nursing* with several Hispanic / Latino and American Indian students identifying that they would not have been able to pursue professional careers, b) *Personal and Academic Barriers to Success* including financial resources and need to work while in school, c) *Family and Peer Relationships* such as Hispanic / Latino and American Indian students having more family responsibilities and desire to spend time with families; Caucasian students sought out peer support and *received* support from families rather than *giving* support, and feelings of being welcome in the program, d) *Plans for Service to Family and Community after Graduation* [expressed more frequently by Hispanic / Latino and American Indian students- “*attached at the umbilicus*”], and e) *Fear of Academic Failure* experienced by more Hispanic / Latino and American Indian students than Caucasians. Hispanic/Latino students also identified disconnect with online classes, preferring personal relationships with faculty. |
| Handlos DeVoe (2016)  (unpublished dissertation) | Investigate the recruitment and retention of Hispanic students in an associate degree nursing program as described by nursing school administrators; Compare with Hispanic nursing student perceptions | None described. | Convergent mixed methods study design. Electronic survey used with students and administrators; descriptive qualitative approach used with students via telephone interviews and focus groups. | Qualitative: n=15 Hispanic nursing students in 3 ADN programs in one Mid-Atlantic state.  Quantitative: n=7 nursing program administrators. | Lack of recruitment efforts specifically for Hispanic students evident in administrator and student responses. Obstacles and barriers reported as language issues, family and work responsibilities, school responsibilities, financial and reading abilities. |
| Loftin, Newman, Bond, Dumas, & Gilden (2012) | Examine the relationship between perceived supportive characteristics for diversity, as measured by the *Healthcare Professions Education Program Self-Assessment Survey* and graduation rates of Hispanic and other URM students in pre-licensure nursing programs. | Model of Institutional Support | Cross-sectional survey design  Program Self-Assessment Psychometrics (PSA) instrument used to measure perceived supportive characteristics for diversity. The PSA instrument  had 6 subscale scores: financial support, emotional and moral support, mentoring, advising, technical support, professional socialization. | Responses received from 59 pre-licensure nursing programs within Texas (BSN programs: n=17, ADN programs: n=42. | Cronbach’s alpha score for survey demonstrated strong consistency at 0.87 for overall PSA instrument. Subscale Cronbach’s alpha scores ranged from 0.43 to .79.  Two PSA subscale scores (financial support and emotional/moral support) associated with increased graduation rates of URM students as determined by Pearson correlation coefficient calculations. *Note*: No regression model was used. |
| Moceri (2010) | Document the barriers that Hispanic nursing students face, and explore personal and cultural strategies contributing to academic success | Conceptual framework of “Safe Learning Environment” | Descriptive interpretive qualitative design using focus groups and individual interviews, content analysis used | 13 Hispanic nursing students and recent graduates in the Pacific Northwest; 6 current students, 7 graduates within the last 18 months (ADN=9, BSN=4);  12 females and 1 male, 11 were born in US, 2 born in Mexico | Themes included: a) *Facing Obstacles* (participant descriptions of institutional and cultural obstacles and discrimination experiences) and b) *Achieving Success* (institutional [financial aid, faculty support], personal [having a goal, a dream, desire for a better life, spirituality], social [supportive peer group] and cultural [feelings of solidarity, family support] assets and strategies used for academic success- *being cabezona* [stubborn]). |
| Morales (2014) | Understand the lived experience of Hispanic new graduate nurses. | None described | Qualitative study using phenomenology; In depth semi-structured interviews and demographic questionnaire | 7 Hispanic / Latino nurses with < 3 years of nursing experience, (ADN graduates = 5, BSN graduates = 2), Midwest and Southwestern U.S. | Themes included: a) *Being an Employee* (sought after by employers, bilingual, relief at finishing nursing school); b) *Descriptions of Orientation and Transitioning* to the role of the nurse; shadows of doubt as a new graduate nurse; c) *Being Hispanic* and this positively impacting Hispanic patients, *Being Alone*- ‘the only Hispanic nurse’; d) *Being Bilingual* and pulled into patient interpretation for other nurses, and e) *Feeling Blessed*. |
| Nadeau (2014) | Discover how successful Latina pre-nursing students experience and respond to academic challenges | None to start; connections to Bandura and self-efficacy with data analysis | Qualitative design using interpretive phenomenology; semi-structured private interviews; two interviews per participant | 6 Latina nursing students who had completed prerequisite courses, all American citizens, English as primary language, 3 were bilingual, study location in Texas. | Themes identified: a) *Facing Academic Challenges* (new learning environments, volume of work, difficulty with test taking); b) *Emotional Responses*- anxiety, stress, fear- tried not to ask questions or be noticed; c) *Seeking Help*- more apt to do so if felt welcomed by professors; d) *Transcending Academic Challenges* through study habits, family support; e) *Owning Knowledge*- contrast between superficial knowledge and deeper understanding; f) *Persevering* – parental support and pressure offset discouragement from others; g) *Living Out Values and Beliefs*- *learning situated within relationships* |
| Ninan (2015)  (unpublished dissertation) | Understand Hispanic nursing students’ experiences of successfully completing a baccalaureate nursing program and passing the state licensing exam for registered nurses despite having failed a nursing course and having been placed on academic probation | Tinto’s theory of Student Integration | Qualitative: phenomenology using a Husserlian approach, using face to face interviews (n=5) and telephone interviews (n=1). Giorgi’s steps for data analysis followed. | 6 Hispanic registered nurses who had graduated less than 2 years before. All participants born in the U.S., 5 were bilingual, all were female, living on the “West Coast”. | Achieving academic success is a process that occurs in 3 distinct, successive states: a) *Despair*, b) *Self-reflection*, and c) *Change*. Despair reflected feelings of intense fear and self-doubt. Self-reflection was a pivotal turning point where the dream to become a nurse was “recaptured”. Change reflected the student seeking help, improving study habits and time management, and making connections with peers and faculty. |
| Rios (2013)  (unpublished dissertation) | Describe the institutional factors contributing to associate degree in nursing completion by Hispanic male students at one community college in Texas. | Swail’s Geometric Model of Student Persistence and Achievement | Qualitative case study design | 6 full-time School of Nursing staff, nursing faculty and administrators (4 male, 2 female), study location in Texas. | Recruitment and admission efforts, curriculum and instruction, and to a lesser degree academic services and student services all contributed to an increase in graduation rates for Hispanic males. Financial aid was not confirmed as positively contributing to graduation rates for these participants. |
| Rivera-Goba, & Nieto (2007) | Understand the experiences of Latina nursing students to identify conditions that affect their educational experiences | None described | Qualitative approach using private, semi-structured interviews and phenomenology with content analysis | 17 Latina nursing students or recently graduated nurses in Massachusetts and Connecticut, all female | *Bridges* and *Roadblocks* described  Family, perseverance and mentors served as bridges. Roadblocks were marginalization, economic status necessitating work while in school. The study emphasizes need for mentorship with more Hispanic/Latino faculty. |
| Sheils (2010)  (unpublished dissertation) | Describe challenges to and supports for persistence in a baccalaureate nursing program in Northeastern U.S for Puerto Rican Latino students. | Tinto’s Theory of Student Departure and Austin’s Theory of Student Involvement | Qualitative design with focused, semi-structured interviews following an ethnographic design; focus group for member checking. Inductive data analysis used. | 10 Puerto Rican Latina students, all female, at a small, private, less selective liberal arts college in Western Massachusetts. Included 3 sophomores, 3 juniors and 4 seniors. | Themes included: a) *The Importance of Family*, b) *Financial Constraints*, c) *Being Academically Unprepared,* d) *Bilingualism and Biculturalism* [seen as assets], e) *Personal Relationships* [with family, peers, faculty and patients], f) *Plans to Work* in community settings with underserved populations, g) *Personal Attributes of Determination* [doing “whatever it takes to achieve their goal”]. |
| Thompson, Guajardo, Tapp, & Jezek (2012). | Describe the lived experiences of Hispanic undergraduate nursing students attending a private Christian university | None described | Interpretive Phenomenology with a focus group setting, data analyzed using Colaizzi method | 7 students: freshmen, sophomore, junior and senior students all represented, 6 females, 1 male in Oklahoma | Themes included: a) *Family is Everything*,  b) *We Need Each Other* [describing risk for isolation, loneliness, stress away from home; struggles between ‘who they are, who they should be, and who they are becoming… battlefield of remaining authentic or assimilating into the mainstream culture of the University’], c) *Should I Wear a Mask*? [having to make a decision to show their culture and be who they are or adapt to someone else’s culture, feeling different and standing out]  d) *This Isn’t Just a School Thing* [being the first in the family to attend higher education, parents did not understand the rigor or pressures; culture shock], e) *It’s a Nice Place, But it’s not Home* [assumptions about others regarding Hispanic people performing only manual labor, surprise from peers when they made an A  f) *The Rightness of Being White* [I’m not part of the group; I don’t have money and have to work], g) *We Won’t Break, Work is a Necessity* [do what it takes to achieve goal; personal and family sacrifice], h) *We Make Allowances for Ignorance* [discussing aspects of insensitivities from others], i) *Making it Right for Us* [offering support groups, more minority faculty role models] |
| Torregosa, Ynalvez, Schiffman, & Morin (2015). | Examine the relationship among English language acculturation, interactions with academic networks, and course grade for Mexican American baccalaureate nursing students. | None described | Secondary data analysis of larger study on predictors of student success  English language acculturation measured by the  English Language Acculturation Scale (ELAS) | N=164 Mexican American BSN nursing students from 7 schools of nursing within Texas. 133 females, 30 males. | Hierarchical regression analysis performed, along with descriptive information for demographic variables.  English language proficiency had no statistically significant influence on interaction with academic networks or course grade; instead entrance GPA impacted interactions with academic networks as well as course grade. Unexpected finding. |