Social Determinants of Health: A Longitudinal Study of BSN Students’ Perceptions

Susan K. Lee, PhD, RN, CNE
UT MD Anderson Cancer Center, School of Health Professions
Health Care Disparities, Diversity and Advocacy
Houston, Texas, USA

Pamela Willson, PhD, APRN, FNP-BC, CNE, NE-BC, FAANP
Graduate Program Director, St. David’s School of Nursing, Texas State University,
Round Rock, Texas, USA
Conflict of Interest

The authors certify they have no affiliations with any organization with any financial interest or non-financial interest in the subject matter discussed in this presentation.
Objectives

• Gain understanding of students’ perceptions of Social Determinants of Health (SDOH) at the beginning and end of a Bachelor of Science in Nursing (BSN) education program.

• Identify factors of SDOH that may be incorporated into health professions educational curriculum.

• Raise awareness of SDOH in healthcare professions’ education.
Purpose

- Purpose of this study was:
  - to explore BSN students' knowledge of SDOH at the beginning (Baseline) and end of a program of study (Completion),
  - to identify factors of SDOH for inclusion in a curricular change, and
  - to determine how students' perceptions of SDOH change over time.
Background

  - Ways for populations, societal groups, and communities to attain healthier member lives. (Denham, 2017)
- American Hospital Association (AHA) called hospitals to lead and engage employees in a culture of health. (AHA, 2011)
- Nursing Faculty are challenged to move the BSN curriculum focus of cure, acute care, and medical management of disease in single individuals (hospital-based) to a population approach to health that is inclusive of the SDOH. (Martsolf, et al., 2016)
Social Determinants of Health

Factors may include:

- Childhood experiences
- Housing
- Education
- Social support
- Family Income
- Employment
- Communities
- Access to health services
Theoretical Model

• Provided a framework for categorizing the students understanding of social determinants of health
  • Individual
  • Interpersonal
  • Organizational
  • Community
  • Societal

Research Questions

• How do BSN students identify poor health contributing to SDOH at baseline and at program completion?
• How do BSN students perceive the nurse’s role responsibilities to identify and address change in SDOH for clients?
• At baseline what types of actions have BSN students taken to address SDOH?
• Do BSN students’ perceptions of the nurse’s role responsibilities in addressing SDOH change over the course of a traditional BSN program?
Design

- Exploratory, descriptive, longitudinal, qualitative study
- Purposive sampling of BSN students in one program (N=100)
- Anonymous surveys with assessment times at baseline (beginning of junior year of a 4-year program) and at completion of the program
- Content analysis guided by the SDOH factors and Socio-Ecological Model of Health
Methods

• IRB approval

• Participants
  • Nursing program's cohort for 2015-2017 (N=100)
  • 91 voluntary participants; 91% response rate

• Measures
  • Baseline
  • Completion – 21 months
Instruments

• Demographic questionnaire
  • 7-item multiple choice response

• Social Determinants of Health (SDOH) questionnaire
  • Data collection at Baseline
    • Demographic questionnaire
    • SDOH questionnaire A – 3-item free-text box
  • Data collection at Completion
    • SDOH questionnaire B – 3 item free-text box
SDOH Questions

• Q1. What social determinants are you aware of that contribute to poor health?
• Q2. What do you imagine is the nurse's responsibility, if any, to identify and address change in social determinants of health for clients?

For the Baseline Survey
• Q3. What have you already done to change social determinants of health?

For the Completion Survey
• Q3. How has your perception of the nurse’s responsibility in addressing social determinants that contribute to poor health changed over the last year?
Participants (N=91)

- Students ranged in age from 19 to 42 years, with the mode and medium being 21 years old.
- Most were females (n=78, 86%), single (n=35), without dependents or military experience.
- BSN was a second degree for 23% (n=21) of the students.
  - First degrees included:
Data Analysis

Qualitative

• Line-by-line qualitative analysis of Baseline and Completion Surveys conducted by the research team
  • to identify common SDOH themes and Socio-Ecological categories, and
  • to identify differences and similarities between Baseline and Completion responses.
Results

Baseline and Completion Responses by SDOH Factors
Q1a. SDOH Contributing to Poor Health

Baseline SDOH Factors

- Childhood Experiences \( n=3 \)
  - Neglect; Body image, eating disorders
- Housing \( n=13 \)
  - Hygiene, sleep; too many people, clean water
- Education \( n=23 \)
- Social support \( n=17 \)
  - Bullying, peer pressure, low self esteem, bad crowd, unhealthy relationships, loneliness

Completion SDOH Factors

- Childhood Experiences \( n=2 \)
  - Single parent home
- Housing \( n=15 \)
  - Homelessness
- Education \( n=53 \)
  - Barriers, lack of resources
- Social support \( n=20 \)
  - Culture, traditions
Q1b. SDOH Contributing to Poor Health

**Baseline SDOH Factors**
- Family income \((n=31)\)
  - Poverty, low socio-economic status
- Employment \((n=5)\)
- Communities \((n=20)\)
  - Sedentary lifestyle
  - Environment
- Access to health services \((n=23)\)
  - Fear/mistrust of medical community, social rumors re: healthcare, lack of insurance, resident status, prenatal care
  - Use of tax money, government rules, media, genetics

**Completion SDOH Factors**
- Family income \((n=64)\)
  - Poverty, socioeconomic status
- Employment \((n=13)\)
  - Dangerous, no benefits
- Communities \((n=28)\)
  - Geographical barriers, transportation, pollution, crime, sedentary lifestyle
- Access to health services \((n=31)\)
  - Illness, disabilities, mental health
### Q1c. SDOH Contributing to Poor Health

#### Baseline SDOH Factors
- **Miscellaneous**
  - Nutrition \( (n=38) \)
    - Unhealthy traditional food, fast food
  - Smoking/Alcohol \( (n=27) \)
  - Stress \( (n=15) \)
  - Cultural/familial issues \( (n=4) \)
  - Unsafe sex \( (n=2) \)
  - Focus \( (n=1) \)

#### Completion SDOH Factors
- **Miscellaneous**
  - Nutrition \( (n=15) \)
    - Food deserts, obesity, unclean food/water
  - Violence \( (n=5) \)
  - Smoking/drugs/alcohol \( (n=3) \)
  - Language \( (n=3) \)
  - Stress \( (n=2) \)
  - Government resources \( (n=1) \)
  - Lack of motivation \( (n=1) \)
  - No answer \( (n=1) \)
Q2a. Responsibility to address SDOH

**Baseline SDOH Factors**
- Engage in legislative issues \( (n=15) \)
  - Universal healthcare, insurance reform
- Volunteer \( (n=4) \)
  - Food banks, health org, community education
- Advocate for better conditions \( (n=3) \)
  - Safe, quality, affordable
- Be part of healthcare profession \( (n=1) \)

**Completion SDOH Factors**
- Patient education \( (n=57) \)
  - Prevention, resources
- Engage in legislative issues \( (n=15) \)
  - Universal healthcare, insurance reform
- Community assmt/interventions \( (n=6) \)
- Participate in community events \( (n=4) \)
- Advocate for better conditions \( (n=3) \)
  - Healthcare, water, environment
- Seek advanced practice degree \( (n=2) \)
### Q2b. Responsibility to address SDOH

#### Baseline SDOH Factors
- Patient care *(n=10)*
  - Comfort/understanding
- Role model *(n=6)*
- I don’t know *(n=2)*
- Free healthcare and supplies for poor *(n=1)*
- Be adaptable *(n=1)*
- Report abuse and neglect *(n=1)*
- Empathy, compassion *(n=1)*
- Be honest and direct *(n=1)*
- Not to get too personally involved *(n=1)*

#### Completion SDON Factors
- Health fairs/community clinics *(n=5)*
  - Volunteer
- Role model *(n=5)*
- Be adaptable *(n=1)*
- Report abuse *(n=1)*
- Confidentiality *(n=1)*
- Be calm *(n=1)*
  - Empathy, compassion
Q3a. Actions to change SDOH

Baseline SDOH Role (N=68)

- Improve self (n=24)
  - Body image, healthy, exercise, quit smoking
- Increased personal education (n=15)
- Volunteer (n=13)
  - Food pantry, hospice, community events
- Encourage others to be healthy (n=4)

- Kind and confident (n=3)
- Donate money (n=3)
- Military service/war (n=2)
- Fund-raising/social events (n=1)
- Open minded/non-judgmental (n=1)
- Planting trees (n=1)
- Vote (n=1)
Q3b. Nurses role to change SDOH

Completion SDOH Role (N=88)

- Raised awareness, increased perception (n=36)
- Important for nurses to advocate for change (n=30)
- Importance of professional organizations/local government engagement (n=13)
- Importance of policy-making (n=5)
- Importance of patient education (n=4)
Socio-Ecological Categories of SDOH Factors

- Baseline versus Completion
- **Individual** (knowledge, attitudes, skills)
- **Interpersonal** (families, friends, social networks)
- **Organizational** (workplaces, schools, social institutions)
- **Community** (physical and social environments)
- **Societal** (broad social policy, economic and legal context)
Discussion

• Students need to learn about SDOH that may differ from the students’ norms. (Individual)
  • Participate in a legislative day at the capital.
  • Healthcare clinics in schools, jails, and homeless shelters.
  • Enact a poverty simulation or a community immersion experience.

• Participants’ responses evolved over time to incorporate a broader definition of SDOH. (Interpersonal)
  • Bystander intervention techniques.

• Participants’ demonstrated awareness of barriers to access to health services (Community)
  • Conduct a community assessment, identifying healthcare access issues and recommendations for interventions for change.
Discussion

• Participants’ acknowledge an expanded healthcare professional role related to SDOH. (Organizational)
  • Participate in clinical learning experiences to develop leadership, health promotion, and professional skills.

• Health care professions educational curriculum may be modified to enhance students’ perception of the nurse’s role responsibilities of patients SDOH. (Societal)
  • Organize and conduct community health-based programs, such as childhood obesity screening
Conclusion

• Students were able to identify and process select aspects of SDOH.
• Increased complexity in clinical learning helped students gain a broader view of the nurses’ role outside of the traditional acute care setting.
• Curricular suggestions:
  • SDOH to reduce inequalities needs to be integrated across the curriculum.
  • Didactic classes should highlight SDOH.
  • Educational strategies should expand beyond:
    • Family Income, Access to Health Services, Education to include all factors of SDOH.
Conclusion

• Clinical suggestions:
  • Increased awareness of vulnerable populations and SDOH through various clinical learning experiences.

• Specialty services:
  • Infection control
  • Wound and diabetes
  • Cardiovascular and Stroke
  • Rehabilitation

• Community settings
  • Urgent care clinics
  • Centers on aging
  • Hospice care
  • School nursing
  • Weekend camp for adults or disabled children
  • Occupational health settings
Future Research

• Although this study focused on one cohort in a pre-licensure nursing program, this framework may guide interdisciplinary healthcare education programs to integrate SDOH across the curricula.

• Future studies include replicating the current study to interdisciplinary healthcare education programs across Texas and then across the United States.
Questions?

Susan Lee, PhD, RN, CNE
UT MD Anderson Cancer Center, School of Health Professions, Health Care Disparities, Diversity and Advocacy
Houston, Texas, USA
susanlee4914@gmail.com

Pamela Willson, PhD, APRN, FNP-BC, CNE, NE-BC, FAANP
Texas State University, Round Rock, Texas, USA
paw66@txstate.edu

This presentation is available in the Virginia Henderson Global Nursing e-Repository
References