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The Nurse's Role in Addressing Barriers to Cancer Screening of African Americans: An Integrative Literature Review

Joseph D Tariman, PhD

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Editor's Perspective

Brokering Knowledge: Building Bridges of Learning Across Boundaries

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In January 2018, the Philippine Nurses Association of America (PNAA) held its 11th International Conference & 2nd Global Summit in Manila, Philippines. The first PNAA International Conference was in 1996 and it has been held every two years since that time. Through the years, PNAA has collaborated with the Philippine Nurses Association (PNA); the Association of Deans of Philippine Colleges of Nursing (ADPCN); and once with the University of the Philippines and at another time, with St. Paul University system. During these conferences, PNAA showcased expert speakers in nursing practice, education, administration, regulation and research from different countries but mostly were members of PNAA. Attendees came from many countries where Filipino nurses migrate and practice such as the United States, United Kingdom, Ireland, Germany, the Middle East (Kuwait, Libya, Oman, Qatar, Saudi Arabia, United Arab Emirates), Australia, Canada, and Asian countries (Singapore, Japan) but the majority of attendees were from the Philippines.

The International Conference is an excellent demonstration of PNAA as a knowledge broker. Knowledge brokers are persons or organizations that facilitate the creation, sharing, and use of knowledge (Sverrisson, 2001). It is believed that knowledge brokering facilitate the spread of knowledge within and between organizations which can lead to innovation. There are three models of knowledge brokering: 1) knowledge management, which is a way of sharing and disseminating knowledge; 2) linkage & exchange, which is the development of positive relationships between providers and recipients of knowledge; and 3) capacity building, which is focused on the development of skills of the recipients of knowledge (Ward, House, & Hamer, 2009).

The first two models (knowledge management, linkage & exchange) have been demonstrated through the international conference and the "balik turo" (giving back) program that began in 2008. For the past ten years, PNAA subject matter experts have been going to the Philippines (in conjunction with the International Conferences) and have conducted educational programs in schools of nursing, hospitals and other healthcare organizations throughout the Philippines. In some cases, the topics provided were requested by the schools of nursing and healthcare institutions who were hosting the "balik turo." This program has grown significantly in terms of reach, volume of attendees, and the number of programs conducted. In fact in January 2018, "balik turo" programs were conducted in Baguio City, Manila City, and in Negros Occidental where approximately 700 nurses, faculty, administrators, and students attended.

The third model (capacity building) has also been done sporadically in the past ten years. In 2009, an End-of-Life Nursing Education Consortium Training Program was held where hundreds of doctors, nurses, and educators in the Philippines were trained regarding End-of-Life Care. In 2012, PNAA established a mentor-mentee program whereby five faculty members from different universities in the Philippines namely: Far Eastern University, St. Paul University (Tuguegarao City), University of the East, University of the Philippines, and University of Santo Tomas were mentored by seasoned educators from the US. Mentees worked with their mentors in terms of course development, curriculum development, writing for publication, and building portfolios. Further evidence of knowledge brokering at the recent international convention was the awarding of scholarship grants for at least 30 nursing students from different colleges of nursing to attend the International Conference for free.

Ward, House, & Hamer (2009) describe several challenges of knowledge brokering that maybe applicable to PNAA. Some of these challenges are the lack of time and resources; lack of clarity of brokering roles; inadequate range of skills that are needed; and lack of program evaluation to measure the effectiveness and efficiency of knowledge brokering. Since PNAA members do the knowledge brokering activities on a volunteer basis, a formalized structure needs to be established to include; creating a committee, budgeting resources and outlining clearer guidelines. To sustain knowledge brokering, PNAA needs a pool of volunteers who are consistently committed to ensuring quality educational programs in all areas of nursing (knowledge management model); maintain its Office of International affairs to dedicate time in creating and maintaining partnerships (linkage and exchange model); as well as establish sustained mentoring and role modelling programs (capacity building model). Having all these in place, PNAA can become a model professional organization in building bridges across boundaries through knowledge brokering.

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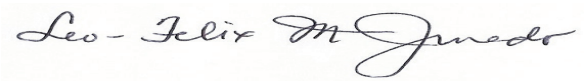

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Op-ed

Knowledge Building: The Business Case for Case Reports

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The *Journal of Nursing Practice Applications and Reviews of Research (JNPARR)* continues to be the conduit for knowledge dissemination to its readers. Since the transition of the journal into a research-focused publication, JNPARR has contributed to the translation of evidence into practice (Jurado, 2017a; Pajarillo, 2013). Nurses use a large repertoire of knowledge to inform their clinical decisions (Polit & Beck, 2012). A hierarchy of evidence has become the structure upon which the strength of the evidence is measured, evaluated, and judged. The hierarchies of evidence were first introduced about four decades ago (Canadian Task Force on the Periodic Health Examination, 1979). The hierarchies have served to simplify the communication of the complexity of evidence that has been generated through various research methods and investigations. See Figure 1.

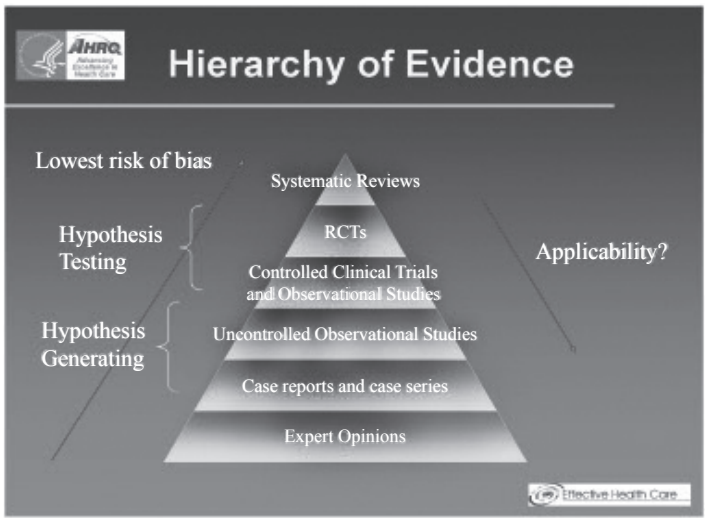

Figure 1. *Hierarchy of Evidence.*
Source: http://prn.fm/wp-content/uploads/2015/03/heirarchy-of-evidence.jpg

Case Reports: Source of Evidence

Case reports, as a source of evidence, have been part of the evidence pyramid and have played an important part of evidence-based practice (Albrecht, Werth, & Bigby, 2009) but have occupied a lower level of strength compared to randomized-controlled trials, systematic reviews and meta-analysis (Burns, Rohrich, & Chung, 2011). Considered as low-level evidence, case reports have not traditionally received the favor for publication. Banerjee (2012) has lamented that medical journals, especially the more prestigious ones, have published a limited number of case reports. To differentiate case reports from the case study method, readers are encouraged to review the work of Yin (2014). A previous article appearing in JNPARR has reported the findings of a case study (Tuazon, 2017).

Avoiding Publication Bias: Reporting the Good and the Bad

Case reports offer opportunities for clinicians to expand clinical knowledge (Carey, 2010). A cursory search using CINAHL Complete, ScienceDirect, Academic OneFile, and PscyINFO using Boolean phrase "case reports" and "nursing" in the titles of published articles between 1979 and 2018 yielded several case reports that encompassed different specialties, populations, and care settings. Underscoring the reported gaps between research and practice, case reports have the advantage of more timely reporting, particularly by clinicians faced with limited research capacity (Yitschaky, Yitschaky, & Zadik, 2011). In a recent article by Firat, Araz, and Kayhan (2017), the authors have echoed the concerns about the declining citation of case reports and posited that case reports are important venue through which new experiences or discoveries can be shared. One caveat for case reports is for authors to be aware of the risk of publication bias. One of the criticisms about case reports is the tendency to report favorable over unfavorable outcomes. In one survey, 90% successes from case reports and case series were reported versus the 10% failures (Albrecht, Meves, & Bigby, 2005).

The Early Beginnings of Case Reporting

As JNPARR continues to expand its reach and scope in disseminating knowledge and promoting the translation of evidence into practice (Jurado, 2017b; Pajarillo, 2014), various levels of sources will be explored, including case reports. The earliest case reports found in a nursing journal elucidate the value of reporting experiences and new discoveries. Sherman (1902) reported her personal experience in treating an adolescent girl who suffered from ivy poisoning.

> It fell to me to treat this case without a physician, because in my Southern home, where so much life is spent out-of-doors and vegetation is rank, ivy poisoning is a yearly emergency familiar to all. (Sherman, 1902, p. 660)

The author went on to provide details of the history of the patient, the treatment that was provided, the detailed description of the poison ivy plant, the poisonous oils of the plant, the signs and symptoms of ivy poisoning, how the beautiful plant was

unknowingly grown in gardens, and the mode of transmission of the poisoning. The author concluded her case report with what appeared to be an epidemiological finding when she described the differential diagnosis of poison ivy and small-pox:

> And the ease with which the eruption can usually be diagnosed and treated at home should not lessen our appreciation of the severity which it attains. Proof of this occurred recently … where a successful county practitioner and chairman of the local Board of Health, being puzzled by an extremely bad skin disease…. and preferring to err on the side of safety, made a diagnosis of small-pox…. discovered the he (the patient) was confronted merely by the advanced stages of neglected ivy poisoning. (Sherman, 1902, pp. 667-668)

Trimmer (1917) reported the events surrounding a newborn who had suffered from capillary hemorrhage. In great detail, she chronicled her observations:

> Baby born December 24; after reaction from birth took place she had to be worked with several minutes. The usual methods were used: blowing in the face, holding by feet, and slapping on chest with cold towel wet with whisky. Baby seemed normal with two exceptions: lips were blue and it was thirty-five minutes before urine was voided. Weight, 8 ½ pounds. (Trimmer, 1917, p. 110)

The author's attention to details provided a clear description of the medical condition being highlighted. In this particular case report, the patient developed an unusual condition on the third day. The details of the case report included the following description:

> December 25…. At 3:25 p.m., baby wakened with very peculiar cry and would not nurse. I saw something was wrong….. The doctor …. found a heart murmur…. and ordered oxygen and an enema of whisky, 30 drops and 1 ounce of water. Consulting physician…. advised bathing the chest with hot mustard and then slapping the baby with hot whisky. (Trimmer, 1917, p. 110)

The case report provided a description of the recovery process for the baby from the medical condition. The details of the case report illustrated the importance of sharing the course of the medical condition and in evaluating the effectiveness of the interventions.

> Hemorrhage stopped after second hypodermic of human blood. The child was born with slow heart action. At three months she was strong in every way, pulse 60 to 64 but very regular. The physician said that it had been practically impossible to get the fetal heart count during pregnancy. (Trimmer, 1917, p. 111)

Knowledge Dissemination and Translation of Evidence

Nursing has come a long way since the publication of the first case reports. From the rudimentary style of describing medical conditions or phenomena, case reports have evolved into methodical and systematic approaches of disseminating knowledge. A recent case report published in a nursing journal focused on the detailed account in interpreting the patient's physical and behavioral responses who suffered from sub-arachnoid hemorrhage (SAH). The case report highlighted the nursing interventions that were formulated based on the interpretation of the responses of the patient (Borkowski, 1990, p. 174). Case reports may also cover general phenomenon based on a synthesis of experiences by a group of patients or by a specific population. Recognizing that the contents of a case report vary, JNPARR would welcome articles about different areas of interest in clinical nursing, disease conditions, healthcare disparities, determinants of health, and population health. Although the formats for case reports may also vary, the basic elements of a scholarly paper should be followed. For more specific guidance in writing a case report for publication, Green and Johnson (2006) have recommended guidelines that include a) title, b) abstract, c) introduction, d) case method focusing on methods and results, e) discussion, f) conclusion g) acknowledgements if applicable, h) references, i) tables, if applicable, and j) figures, if applicable.

Conclusion

Case reports can be used as the first line of evidence in sharing personal knowledge about a clinical phenomenon or condition affecting individuals, groups, or populations. The JNPARR can become the vehicle through which practitioners and providers can contribute to the dissemination of knowledge, and ultimately lead to the translation of evidence in an efficient and effective manner. As the official publication from a professional organization, JNPARR will be among the trailblazers in promoting the benefits of case reports.

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Cultivating Resilience in the Workplace: Relationship Between Demographic Factors and Nurses' Perception of Resilience

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Abstract

Background: Nursing studies have been conducted to understand the relationship of resilience with nurses' work environment and its influence in promoting nurses' job satisfaction and retention. A survey was conducted to analyze the relationship of resilience based on sociodemographic factors – age, gender, education and area of practice.

Objective: The study aims to understand the factors that promote resilience that could potentially help identify interventions and/or tools in improving individual's resilience in the workplace. The results can be used for future research in identifying other variables and use of customized interventions that can eventually build up resilience traits or characteristics and improve one's resilience score.

Methods: Given the high degree of stress in today's society, nursing has become a focus for studies and interventions that foster resilience in the workplace. Authors have analyzed the relationship of high-stress work environments such as critical care, burn and oncology units to understand its contribution to nurses' retention or burn-out. Resilience as interpreted by Wagnild consisted of five essential characteristics: purpose, perseverance, self-reliance, equanimity, and authenticity. Wagnild's 14-item Resilience Scale was used to measure RS score with a reliability ranging from 0.84 to 0.94 alpha coefficients. A survey was conducted to nurses who consented to participate (n=158) at a national conference in the United States in 2016. All participants were included in analyzing age, gender, education and unit (area of practice). In calculating the RS-14 score, eight samples were excluded due to incomplete answers to the 14 questions, thus the sample was n=150. The results were coded and analyzed using statistical software package, SPSS version 24.

Results: The results of the study showed that out of 150 participants, majority has a moderately high resilience score. The data from multiple age groups show that as the participants' age increased, the RS-14 scores tended to increase as well. This differs inversely with the educational degree whereby the RS-14 score tends to be moderate in participants with higher degrees (doctorate and master) whereas those with associate, baccalaureate and diploma have moderately high resilience scores. Majority of the participants worked in inpatient/acute care units (117), outpatient/ambulatory care (31), and long term/skilled nursing facility (2). From the 150 sample population, the mean and standard deviation of the RS-14 was 83.20 (SD = 16.14). The corresponding minimum and maximum score range for RS-14 were 14-98. The Cronbach's alpha coefficient was 0.97.

Conclusions: Leadership and management can use resilience as the theoretical framework in the creation and planning of staff development programs as the profession continues to address nurses' satisfaction, adverse workplace environment, and challenges with retention and recruitment.

Keywords: resilience, work environment, coping behavior

Background

Many disciplines and fields of science, ranging from ecology, business, sociology, psychology, engineering, medicine, nursing and the military, have studied the phenomenon of resilience (Garcia-Dia & O'Flaherty, 2016, p.237). Jackson, Firtko, and Edenborough (2007) have taken the approach that resilience can be learned or developed once the characteristics that exemplify resilience are identified. Ongoing debate continues in determining if resilience is a process or an outcome. Although the commonality of all definitions revolves around the ability to recover from an altered state, the authors offer no explanation of the mechanisms by which resilience occurs. Majority of research studies have identified that the presence of adversity is the antecedent or precipitating factor for resilience trait (Fletcher & Sarkar, 2013; Hart, Brannan, & DeChesnay, 2012). Garmezy and Rodnick's (1959) research on children in poverty proposed that an individual's personality trait is not the sole source of an outcome but rather a product of both internal and external factors. The combination of psychosocial elements and biological predispositions pose as risk or protective factors, which has formed the definition of what is now known as resilience (Garcia-Dia, Dinapoli-Reisman, Garcia-Ona, Jakubowski, & O'Flaherty, 2013).

Nurses witness tragedy, suffering, and human distress as part of their daily work. The stressors associated with assisting others to overcome adversity have made resilience as an essential skill for nurses in their everyday work (Mcallister & Lowe, 2011; Tusaie & Dyer, 2004). However, there is inadequate support in building nurses' resilience in an already under-resourced work environment, compared to other professions such as the military who have structured resilience training programs (Gray, 2012).

Purpose of the Study

Recent traumatic events associated with gun violence such as the Las Vegas shooting and terrorist attacks in New York City place nurses at the frontline in taking care of victims, families and possibly the alleged offender. In addition to caring for victims of violence and terrorism, nurses become targets of workplace violence and are sometimes exposed to bullying by peers. The capacity to cope and function in this stressful workplace environment may vary based on ones' culture, educational background, experience and upbringing (Garcia-Dia & O'Flaherty, 2016). The authors of the study sought answers to the following questions:

1. Is there a relationship between sociodemographic variables such as age, race, gender, educational background, and area of practice in relationship to nurses' resilience score and their perception of resilience?
2. What are the variables, traits, and characteristics that can aid in the development of interventions to fortify one's resilience score with regards to job satisfaction and retention?

Literature Review

Nursing has become a focus for studies and interventions that foster resilience in the workplace. A literature review was performed using search words and terms: "resilience", "burn-out", "psychological well-being," and "coping". Search engines used to focus on nurses included CINAHL, PubMed, Google Scholar, ProQuest and Psych INFO. The authors narrowed down the search to "workplace" to obtain the most results. There were over 100 articles found and 35 articles were selected based on inclusion and exclusion criteria. The inclusion criteria included studies that used resilience scales, research articles related to resilience and nurses' burnout, nurse satisfaction and retention. The exclusion criteria were articles that were not relevant to the population that was studied.

The etymologic derivation of the word resilience is from the Latin resiliens, which means to rebound or recoil (Harper, 2012) and provides the basis for its application to a variety of areas. Bonanno (2004) explained that under normal circumstances, resilient adults exposed to an isolated and highly disruptive event can remain relatively stable and have healthy levels of psychological and physical functioning. Resilience can provide the capacity for generative experiences that allows adults to maintain positive emotions despite their difficult struggles (Bonanno, 2004). The phenomenon which Southwick and Charney (2012) have defined as neuroplasticity refers to the ability of the human brain to change as a result of one's experiences. According to McAllister and Lowe (2011), resilience is a skill that is essential for nurses to help moderate their reactions to stress at work and to find meaning in their experiences despite the adversity. Shakespeare-Finch, Gow, and Smith (2005) described characteristics that support resilience in the work place which include extroversion, openness, agreeableness, conscientiousness, humor, altruism, adeptness at facing fears, and optimism. Authors have analyzed the relationship of high-stress work environment such as critical care, burn and oncology units to understand its contribution to nurses' retention or burn-out (Hart et al., 2012; Shakespear-Finch et al., 2005). Gillespie, Chaboyer, and Wallis (2007) studied the resilience factors of Australian nurses working in operating theatres. These researchers did not find that age or experience was a significant factor in developing resilience, but noted that professional competence was essential in supporting the multifaceted nature of resilience.

A number of questionnaires have been developed and employed to determine one's resilience and the outcomes have been used in workplaces to designate appropriate staff for highly stressful positions (Garcia-Dia & O'Flaherty, 2016). In a study examining the relationship between resilience and

work engagement of Malaysian staff nurses, resilience had a positive and significant relationship thus making resilient nurses an essential element in an ever-changing healthcare system (Jackson et al., 2007; Othman, Ghazali, & Ahmad, 2013).

The use of social support has been identified as important in the development of resilience (Lewis, Poppe, Twomey, & Peltier, 1990; Murji, Gomez, Knighton, & Fish, 2006; Steenkamp & van der Merwe, 1998). Majority of these researchers described strategies commonly utilized by burn nurses such as talking with coworkers and experienced staff and using team work and timeout, to help each other out. Other researchers noted that humor is widely used as a protective mechanism against stress (Cameron & Brownie, 2010; Shakespear-Finch et al., 2005; Southwick & Charney, 2012). In a qualitative study of resilience and post-traumatic stress disorder in the United States, ICU nurses revealed that professionals who are exposed to extremely stressful environments may benefit from a resilience training program to enhance their own resilience (Mealer, Jones, & Moss, 2012). The American Association of Critical Care Nurses (AACN) (2015) has endorsed the importance of nurturing a positive healthcare environment. Healthcare organizations should offer mindfulness classes and health promoting activities to support employees in reducing stress. Active participation of nurses through mentorship workshops for critical thinking and building hardiness assists in the development and strengthening of personal resilience (Hart et al., 2012; Jackson et al., 2007).

Data Collection and Data Analysis

Methods

The authors obtained an Institutional Review Board approval from Case Western Reserve University. A convenience sample was obtained at national conferences by recruiting voluntary eligible participants. A validated survey - Resilience Scale - and demographic questionnaire based from the United States Census Bureau were utilized to collect the data.

Instrument of Study

The Resilience Scale (RS) for Adults version 3.33 developed by Wagnild and Young (1993) is the most frequently used measurement scale with reliability and validity supported by several small studies since 1990. The researchers chose the RS for Adults due to its ease of use and applicability to any age group. Resilience as interpreted by Wagnild (2009a) consisted of five essential characteristics: purpose, perseverance, self-reliance, equanimity, and authenticity. The 14-item RS has a reliability ranging from 0.84 to 0.94 alpha coefficients. Response choices use a seven-point Likert scale to rate the individual evaluation of the item. The respondent's choices range from 1 (strongly disagree) to 7 (strongly agree). The RS-14 use total scores rather than scores for each of the characteristics. A higher total score indicates higher resilience.

Data Collection

The authors distributed recruitment flyers at the registration tables and announced the intent of the study during the conference. Eligible registered nurses who were working full time or part time (≥22.5 hours/week or more) in any clinical setting were invited to participate. The researchers distributed the questionnaire to conference attendees with a cover letter explaining the purpose of the research study. The voluntary completion of the survey signified consent and the letter explained that no identifiable data was going to be collected keeping the survey questions anonymous and confidential. Upon completion of the survey, participants were instructed to drop off the completed paper survey in the box provided inside the conference room. The researchers collected all paper surveys at the end of the conference sessions.

Data Analysis

The authors gathered 158 responses from approximately over 400 conference attendees. The results were coded and analyzed using statistical software package, SPSS version 24 (IBM. SPSS Statistics 22 Grad Pack). Results were rounded off to nearest decimal point. From the 158 participants, eight were excluded due to incomplete answers to the 14 questions resulting to a final convenience sample of 150.

Sociodemographic variables. The age range of participants is between 22 to 66 years old with a mean age of 43 (SD = 11.70). In all age categories, more females (n=129; 86%) participated than males (n=21; 14%). The self-reported race from participants was diverse representing Asian (n=66; 44%), White (n=45; 30%), Black/African American (n=18; 12%), Mixed Race (n=10; 6.7%), Native Hawaiian/Pacific Islander (n=2; 1.3%) and other (n=9; 6%). Majority of the sample reported advanced degree: 4% (n=6) reported doctoral, 22% (n=33) reported master, 61.3% (n=92) reported baccalaureate, 8.7% (n=13) associate and 0.7 (1) identified as other. Tables 1, 2, 3 and 4 present the demographic variables of the respondents.

Table 1

Sociodemographic variable: Age

Age Range	*Frequency*	*%*
18-29	24	16
30-39	34	23
40-49	45	30
50-59	33	22
Over 60	14	9

Table 2

Sociodemographic variable: Gender

Gender	*Frequency*	*%*
Female	129	86
Male	21	14

Table 3

Sociodemographic variable: Self-reported race

Self-reported race	*Frequency*	*%*
Asian	66	44
White	45	30
Black/African-American	18	12
Mixed Race	10	7
Native Hawaiian/Pacific Islander	2	1
Other	9	6

Table 4

Sociodemographic variable: Education

Education	*Frequency*	*%*
Associates	13	9
Baccalaureate	92	61
Diploma	5	3
Doctorate	6	4
Masters	33	22
Other	1	1

Area of Practice (Unit). The majority of the participants worked in inpatient areas (n =117; 78%). Others worked in outpatient/other settings (n = 31; 20.7%) and in long-term/skilled facilities (n=2; 1%). For inpatient and acute units, 73 (62%) worked in medical-surgical and specialty units such as oncology and orthopedics, 38 (33%) worked in critical care/emergency while six (5%) worked in procedure areas (perioperative, labor and delivery). Table 5 and 6 present the areas of practice and the descriptions.

Table 5

Area of Practice (Unit)

Units	*Frequency*	*%*
Inpatient/Acute Units	117	78
Outpatient/Ambulatory	31	21
Long Term/SNF	2	1
Total	150	100.0

Table 6

Area of Practice (Unit): Inpatient/Acute units

Inpatient/Acute	*Frequency*	*%*
Inpatient (Medical-Surgical, Oncology, Orthopedics)	73	62
Critical Care/emergency	38	33
Peri-operative/L&D and Procedure Areas	6	5
Total	117	100.0

Resilience Scale (RS) 14-items. The mean RS-14 score by gender was 81.90 (SD = 18.19) and 83.41 (SD = 15.84) for males and females respectively. Table 7 presents the descriptives. The t-test showed that there is no significant difference with the RS score between gender (t = 0.40; p = >0.003). Table 8 presents the inferential statistical test.

Table 7

Gender and RS-14 mean Score

Gender	Mean	N	Std. Deviation	Minimum	Maximum	Range	Median
F	83.41	129	15.843	14	98	84	87.00
M	81.90	21	18.193	18	98	80	84.00
Total	83.20	150	16.135	14	98	84	87.00

Table 8

Significant Comparison between Males and Females

F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
0.119	0.730	0.396	148	0.693	1.506	3.808

Resilience Scale (RS) 14-items. The result of the RS 14-item scale based on frequency distribution showed a mean score of 83.20 (SD =16.14). The corresponding minimum and maximum score range for RS-14 were 14-98. The Cronbach's alpha coefficient was 0.97 which is comparable to other studies using RS. Table 9 presents the descriptives for the total sample.

Table 9

RS-14 results for Total Sample (n=150)

Measure	Score
Mean	83.20
Median	87.00
Std. Deviation	16.135
Minimum	14
Maximum	98
Range	84
Skewness	-2.495
Kurtosis	7.243
Alpha Cronbach reliability coefficient	.974

The symmetry of the data is skewed to the left with the tail distributed longer than the right tail. The skewness has a negative value of -2.495 indicating the data is skewed to the left. There is a positive kurtosis based on the value of 7.243 indicating a heavy tailed distribution. Based on the distribution, participants whose mean score falls from 70-81 corresponds to a moderate resilience score. Figure 1 shows the distribution of RS-14 scores for total sample.

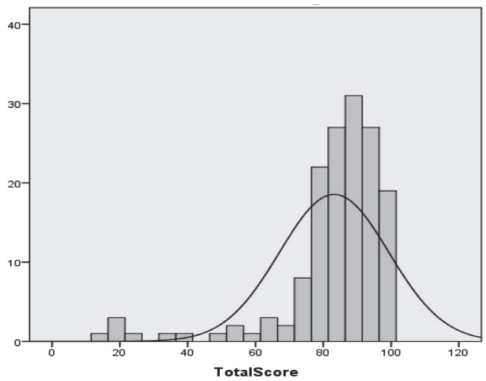

Figure 1

Distribution of RS-14 Scores for Total Sample

Resilience Scale (RS) 14-items and resilience characteristics. The mean RS-14 item mean score for the questions that characterize the Core Resilience traits range from a mean of 5.41 to 6.21 with a total mean score of 5.94 (SD = 1.33). Table 10 presents the means and standard deviations of the RS-14 items.

Table 10

Resilience Scale-14 items mean Score

	Mean	Std. Deviation
Q1	5.80	1.226
Q2	6.21	1.229
Q3	5.41	1.415
Q4	5.75	1.601
Q5	5.76	1.314
Q6	6.13	1.294
Q7	5.92	1.368
Q8	5.83	1.320
Q9	5.92	1.272
Q10	6.09	1.361
Q11	6.00	1.336
Q12	6.14	1.264
Q13	6.21	1.407
Q14	6.02	1.240
Total	5.94	1.331

Seven items fell below the mean RS-14 item score of 5.94 that correlated to the resilience core. The mean score for the questions that pertain to the core were: equanimity (mean = 5.41), authenticity (mean = 5.75), perseverance (mean = 5.83) and purpose (mean =5.92). The mean scores for self-reliance based on individual questions were 5.80, 5.83 and 5.92. Table 11 presents the RS-14 items and resilience characteristics.

Table 11

RS-items and resilience characteristics

RS-Items	Resilience Characteristics	Score
I usually manage one way or another.	Self-reliance	5.80
I usually take things in stride.	Equanimity	5.41
I am friends with myself.	Authenticity	5.75
I feel that I can handle many things at a time.	Self-reliance	5.76
I can get through difficult times because I've experienced difficulty before.	Self-reliance	5.92
I have self-discipline.	Perseverance	5.83
I keep interested in things	Purpose	5.92

Age group, race, education and RS-14 scores. The RS-14 mean score was correlated based on the age group, race and education. Tables 12, 13 and 14 present the age, race, and education and mean RS-14 item score respectively.

Table 12

Age and mean RS-14 item score

Age Range	Mean	N	Std. Deviation
18-29	80.79	24	22.049
30-39	83.12	34	11.377
40-49	83.04	45	17.152
50-59	84.76	33	13.339
Over 60	84.36	14	18.521
Total	83.20	150	16.135

Table 13

Race and mean RS-14 item score

Race	Mean	N	Std. Deviation
Asian	82.74	66	17.686
Black/African-American	85.50	18	10.159
Mixed Race	74.50	10	25.096
Native Hawaiian/Pacific Islander	90.00	2	11.314
White	84.84	45	12.866
Other	81.89	9	17.772
Total	83.20	150	16.135

Table 14

Education and mean RS-14 item score

Education	Mean	N	Std. Deviation
Associate	86.46	13	8.212
Baccalaureate	83.63	92	13.850
Diploma	82.80	5	11.713
Doctorate	81.50	6	9.894
Masters	81.15	33	24.476
Other	81.00	1	
Total	83.20	150	16.135

RS-14 item scores on age, self-reported race and educational preparation. The RS-item mean score for 18-29 year old group was 80.79 (moderate resilience). The RS-item mean score for the rest of the age group (30-39, 40-49, 50-59 and 60+) ranged between 83- 85 indicating moderately high resilience. From the self-reported race, the RS-item mean score for White (85), Black/African American (86), Asian (83), Other (82) and Native Hawaiian/Pacific Islander (90) is moderately high while those that self-reported themselves belonging to the mixed race have a moderate score of 75. The results for the education level showed that participants who have masters, doctoral and other degree have a RS-item mean score of 81 (moderate resilience level) compared to associate, baccalaureate and diploma degrees who have a RS-item mean score of 86, 84 and 83 respectively indicating a moderately high resilience level.

Discussion

Question 1: Demographic Data

The sociodemographic data regarding age, gender, race, educational background, and areas of clinical practice revealed different levels of resilience scores. The t-test based on age groups showed that as the participants' age increased, the RS-14 scores tended to increase as well. The t-test showed that there is no significant difference with the RS score between gender. In comparing resilience level amongst races - Asian, White, Black/African American, Native Hawaiian/Pacific Islander and Other - all showed moderately high resilience score except for those who self-reported themselves belonging to mixed race where the RS score showed a moderate resilience level.

It was found that nurses with undergraduate degrees - diploma, associate and baccalaureate - have higher resilience scores compared to their colleagues with ad-

vanced degrees - masters and doctoral. The RS-14 score tended to be moderate in participants with higher degrees. The analysis of the reported area of practice showed that majority that worked in inpatient areas had an average resilience score of 83.20 which was a moderately high score. This study can be expanded to nurses working in other clinical settings including outpatient, ambulatory and long term care to explore if there is a difference in their perception of resilience and compare workplace initiatives that support job satisfaction and retention.

Question 2: Variables, Traits and Characteristics

The second objective was to identify other variables, traits, and characteristics that can aid in the development of customized interventions to fortify one's resilience score in relation to promoting job satisfaction and retention. According to Wagnild (2009b), the interpretation of the RS-14 scores is based on three categories: low, moderate, and high. The frequency distribution of RS-14 scores for total sample is negatively skewed to the left (skewness = -2.495) with majority of the participants' mean score falling between 70 to 81 indicating a moderate resilience score. These individuals are satisfied in general but there are many aspects in their life where they are unsatisfied and may encounter ups and downs, feel tired and are emotionally drained at the end of the day. Scores ranging from 82–90 indicate a moderately high resilience score and possess characteristics of a solid resilient personality. These individuals believe that they are all doing well but believe they can do better and can strengthen their resilience. They recognize that there is room for improvement, find life meaningful in general and are rarely depressed (Wagnild, 2009b).

There are five underlying characteristics that serve as the foundation of the RS (Wagnild, 2009b). From the RS-14 item questions, participants overall mean score was 5.94. The mean score is used to determine the strength of an individual's resilience core by identifying which values from the 14-item questions scored below 5.94. Out of the fourteen (14) questions, there were seven (7) questions where participants scored lower from the mean score. Out of these seven questions, three particularly described the characteristic for self-reliance. The total mean score for self-reliance range from 5.76, 5.80 and 5.92. The questions asked individuals to rate themselves on how they were able to manage, handle many things, or get through difficulties due to past experience. As defined by Wagnild (2009b), self-reliance is believing in one's capabilities, recognizing one's personal strength and limitation, and be able to depend on oneself. Self-reliance comes from experience and practice that can lead to building confidence in one's abilities and develop problem-solving skills. Self-reliant individuals are able to adapt and strengthen their skills throughout life. The fundamental process of building confidence and increasing competence through professional development are important in supporting new nurses in relation to self-reliance.

Participants scored lower in their mean score from each of the questions describing purpose (mean = 5.92), perseverance (mean = 5.83), authenticity (mean = 5.75) and equanimity (mean = 5.41). Purpose connotes to the realization that life has meaning and recognizes one's value in contributing to a greater good. Having a sense of meaning or purpose in life is the most important characteristic of resilience and serves as the foundation for the other four characteristics. Equanimity means balance and harmony, wherein individuals have an optimistic perspective of life and experiences, often manifested in humor. Perseverance is described as the willingness to continue with the struggles in life and practicing self-discipline and individuals are able to overcome roadblocks, are dependable, demonstrate courage and emotional stamina (Wagnild, 2009b). Working in critical care areas may require perseverance due to the urgent and emergent care for patients. In the study, there are 38 nurses who indicated the ICU as their area of practice. A qualitative study of resilience and posttraumatic stress disorder (PTSD) in the United States by Mealer et al., (2012) revealed that professionals who are exposed to extremely stressful environments may benefit and apply the resilience scale. The outcome of the resilience scores can provide insights for leaders and management on how to create preventative resilience training program in critical care areas and reduce PTSD in the workplace (Mealer et al., 2012).

Authenticity allows one to realize that each person is unique and willingness to accept that one may need to face life alone (Wagnild, 2009b). An authentic person recognizes his or her own worth, content, and is comfortable in his or her own skin. For nursing administration, authenticity is essential in staff management and leadership. Some participants identified their title as Directors. The challenge for nurses who are in administrator role is on recruitment and retention. Leadership and management are areas where developing and building resilience for both nurse leaders and staff nurses are important as part of the organization's resource management and onboarding processes. Additionally, recruiting new nurse leaders is essential as our workforce is aging and baby boomers are approaching retirement. Resilience building is a key factor in developing succession plan programs as intergenerational workforce becomes more prevalent coupled with the projected nursing shortage (Buchan & Aiken, 2008).

From the five characteristics of resilience, majority of the participants can use these questions to reflect on their personal competence and identify support or interventions to build and improve these characteristics. Investigators have taken the approach that resilience can be learned or developed once the characteristics that exemplify resilience are identified. Offering mentorship workshops for

critical thinking and building hardiness and encouraging nurses to actively participate can aid in the development and strengthening of personal resilience (Hart et al., 2012; Jackson et al., 2007).

Limitations of the Study

The study did not address the questions on the use of mindfulness, meditation, spiritual practice or exercise to relieve stress or boost resilience which may have been helpful in understanding if these activities played a role with the participant's perception of their resilience score. This is an additional question that can be explored in determining coping mechanisms and management's role in instituting programs that foster resilience. Another limitation was the convenient sampling which limited the representation of important variables such as area of practice and race.

Future Implications for Nurse Leaders

As the healthcare environment evolves continuously, future studies can focus on creating customized interventions to guide individuals in identifying their strengths and weaknesses in order to cultivate a workplace environment that promotes resilience. Nursing management can facilitate resilience in the workplace through strategies that assist in critical reflection to problem solve, build resolutions to help guide future situations, use shared governance as a nursing model, and create work–life balance for the new recruits and seasoned nurses. Partnering a seasoned nurse with a novice nurse can facilitate mutual support where both can cope with the known and unknown risks often encountered in the clinical setting. Resilience offers hope to nurses in their personal and professional lives as they continuously increase their protective factors, and adjust to daily adversities while finding success and meaning with their own patient care journey. Leadership and management can use resilience as the theoretical framework in creating and planning staff development programs as the profession continues to address nurses' satisfaction, adversities in the workplace environment, and challenges with retention and recruitment.

Conclusion

Nurses' perception of their resilience showed that majority had a moderate resilience score. Understanding sociodemographic factors such as age, gender, race, education, and area of practice can guide organizations in the development of an individualized resilience-building intervention that is appropriate, acceptable and easily adaptable especially for new nurses and those in leadership positions. Although nurses' response to the RS-14 item questions demonstrated that they had moderate resilience based on the mean score, the stressors encountered at work can potentially change their perspective and ability to adapt. Utilizing Wagnild and Young's (1993) resilience survey in identifying and targeting low RS score is an effective strategy in creating customized programs that can enhance nurses' resilience and build a resilient workforce.

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JOURNAL OF NURSING PRACTICE APPLICATIONS & REVIEWS OF RESEARCH

Knowledge, Attitudes, and Experiences of Filipino-American Registered Nurses in the US Towards End-of-Life Care

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Abstract

Background: In today's health care environment, nurses are expected to advocate for patients' rights and wishes, be knowledgeable about advance care planning, be aware of their own beliefs and values towards end-of-life (EOL), and provide culturally congruent care at the EOL. There is limited research available on the knowledge, attitudes, experiences, and beliefs of Filipino-American Registered Nurses (FARNs) in the US regarding EOL practices.

Objective: The purpose of this research study was to explore the knowledge, attitudes, and experiences of FARNs in the US towards EOL care.

Methods: This was a descriptive qualitative study using focus group. A ten-item demographic questionnaire and five open-ended with probe questions were utilized. Participants comprised of 15 FARNs obtained through purposive sampling from the Philippine Nurses Association of America (PNAA) membership. Colaizzi's Analytical Method was employed for data analysis. The study adapted Leininger's theory of Culture Care Diversity and Universality which denotes caring as a universal phenomenon as its Theoretical Framework. The caring ability of the nurse is based on the assumptions that FARNs play a critical role in providing culturally competent care at the EOL.

Results: Four themes emerged from the data analysis to describe the knowledge, attitudes and experiences of FARNs in the US towards EOL care. The major themes were: A Caring Culture, Dying with Dignity, Cultural Dimensions of End-of-Life and Ways of Knowing (Knowledge Adaptation). There were two to four subthemes that emerged from each of the major themes.

Conclusion: In this study, EOL care delivery among FARNs in the US can be described as culturally competent as evidenced by their caring culture, by respecting patients' wishes, doing what is best for the patient and learning new knowledge and culturally sensitive ways to deliver effective and quality care at the EOL.

Keywords: *advance directives, end-of-life care, Filipino-American nurses, attitudes, behaviors, cultural competence.*

Background and Significance

In today's health care environment, nurses are at the forefront of the national healthcare agenda and are expected to advocate for patients' rights and wishes including End-of-Life (EOL) care. Nurses are presumed to have adequate knowledge about EOL care directives. Nurses play an immense role in providing culturally competent care appropriate for the needs of the patient. Nurses who have advanced preparation in delivering culturally competent care are likely to deliver nursing care in a culturally sensitive manner (Evangelista, Motie, Ballard-Hernandez, Malik, & Liao, 2012; Tang et al., 2011). To be culturally competent, nurses should be aware of their own beliefs and values about EOL care and advance directives. This study explored the knowledge, attitudes, and experiences of Filipino-American Registered Nurses (FARNs) in the US towards EOL care.

According to the United States Department of State, there were four million Filipino Americans residing in the United States (US) in 2011. A report from the National Census Statistical Bureau (2009) showed that 48.7% or approximately 80,671 of the foreign educated nurses were from the Philippines. Many of these nurses were educated and obtained nursing care experience in the Philippines. At least 80% of Filipino nurses have Bachelors' degrees when they arrive in the US and are more likely to work in hospitals than out-patient clinics (Cortes & Pan, 2012). Among foreign educated nurses, 71.6% work in hospitals, 9.2% in nursing homes and extended care facilities, 8.4% in community health, and 5.2% are in ambulatory care (Aiken, 2007).

The United States Census Bureau (2010) reported that the United States is projected to experience rapid growth in its older population. The number of Americans aged 65 and older is projected to be 88.5 million by the year 2050, more than double its projected population of 40.2 million in 2010. As the US ages over the next several decades, its older population will become more racially and ethnically diverse and will present challenges to families, businesses, and health care providers including EOL care issues. Nurses including FARNs play an increasingly bigger role in educating the public and the culturally diverse group of patients about EOL care initiatives. Nurses are expected to expand their role towards the promotion of palliative care and hospice care (Douglas & Brown, 2002; Putnam-Casdorph, Drenning, Richards, & Messenger, 2009). This research study was timely given the growing need to examine the knowledge, attitudes, and experiences of caregivers towards EOL care particularly those of different ethnic origin including FARNs.

Literature Review

Numerous articles in the literature describe attitudes and behavior of patients, health care providers, and nurses in general towards advance directives and EOL but there are very few articles in the literature about the knowledge, attitudes, and competencies of ethnic minority groups of nurses towards advance directives and EOL decision making (Evangelista et al., 2012; Kwak & Haley, 2008; Tang et al., 2011). To date, very little is known about how FARNs in the US care for patients at the EOL. There has been no research study found specifically identifying FARNs knowledge and attitudes towards EOL care prior to this research. As nurses take center stage to advocate for patients and for nursing practice, more emphasis is geared towards understanding the EOL care beliefs and values of the patients and of the nurses from a diverse background like the FARNs. This study provided increased knowledge base about advance care planning and EOL care among ethnic minority nurses particularly FARNs in the US.

Hebert, Moore, and Rooney (2011) stated that nurses are the most trusted health care professionals who spend the most time with patients, and able to support, and advocate for the patient during EOL decisions. Nurses are knowledgeable about advance directives but lack the knowledge on how to communicate this knowledge in EOL care discussions. The EOL process becomes more meaningful and less stressful when there is a series of communication and sharing of information about patient's condition from the nurses (Douglas & Brown, 2002; Rolland & Kalman, 2007). Nurses can act as facilitators of communication and can advocate for EOL decision- making by giving information to the physicians, to the patients and family members regarding palliative and hospice care. Given the continued demand for nurses, FARNs are expected to fill the void in areas of health care that are difficult to recruit for, such as long-term care facilities, nursing homes, and hospice settings. Besides primary care settings and hospitals, these other settings are where EOL discussions are likely to happen. It is for this reason that FARNs should possess communication skills, caring attitudes, and adequate knowledge of patients' preferences to achieve positive nursing care outcomes with regards to EOL care. To make this happen, nurses must have resources, adequate support and education to help them develop, and improve their skills with EOL communication (Hebert et al., 2011). Advancing Illness Management (AIM) strategies recommended by AHA (2012) incorporated training in communication skills of physicians and nurses as part of the curriculum particularly around advanced care planning and palliative care.

Assisting with EOL decisions and choosing interventions in a multicultural setting pose challenges to nurses and may vary between ethnic minority groups (Johnson et al., 2010; Kelley, Wenger & Sarkisian, 2010; Kwak & Haley, 2005). Yee (2012) and Pacquiao (2001) described nurses' roles in EOL may be shaped by cultural, kinship, and religious beliefs. For example, Filipino-Americans respect physicians but religious beliefs dominate therefore, respect for God as

the ultimate decision maker is highly observed. During illness and dying, Filipino-Americans resort to religious practices such as praying, consulting a priest or prayer groups for support, and are likely to access hospice care at EOL (Jenko & Moffitt, 2006; Mazanec & Tyler, 2005; Searight & Gafford, 2005). Likewise, nurses of Filipino origin value family decisions, turn to elders as authority figures for major decisions, respect religious beliefs, and are more likely to maintain cordial relationships even when dealing with EOL (Yee, 2012). The value placed on nurses, patients and family members' knowledge and experience towards death and dying is further described in a study conducted in a long-term care hospital in Japan. The study clarified the nursing practices used for older patients at the EOL and showed that nurses' acceptance and evaluation of their own care was critically influenced by the patient's family's responses to their care after patient's death (Odachi et al., 2017). Supporting families' decision-making category emerged and the need to develop educational programs for EOL nursing care of older adults was emphasized on this study.

Nurses are the caregivers that are mostly involved in the EOL care and have the capacity to greatly affect decisions made by patients and families (Hebert et al., 2011). The culturally sensitive care provided recognizes the sanctity of human life and is therefore respected by the patient and helps to facilitate the achievement of a culturally meaningful death (Johnson et al., 2010; Kwak & Haley, 2005; McAdam, Stotts, Padilla & Puntillo, 2009). However, Mazanec and Tyler (2003) stated that health care professionals including nurses, lack knowledge about their patients' cultural practices and beliefs. The level of competence and skills of caregivers to discuss EOL care options are dependent upon the amount of experience, knowledge and preparation the person has had in influencing and dealing with decisions about EOL care (Jenko & Moffitt, 2006). Clinicians cannot be expected to provide good care without the knowledge of their own EOL beliefs and the values and practices of people from different cultures (Mazanec & Tyler, 2003). Understanding the FARNs' attitudes and experiences toward EOL care is fundamental because it can improve the care delivered to patients' at the EOL. The caring ability, the art of communication, having adequate knowledge, and fostering a favorable attitude towards EOL decision-making define the nursing practice domain that covers EOL care. Roland and Kalman (2008) stated that nurses have limited education about EOL care and suggested including this aspect of nursing in the curriculum and in their training and clinical rotation.

Theoretical Framework

The theoretical framework of this study is based on Madeleine Leininger's Theory of Culture Care Diversity and Universality, a theory which denotes caring as a universal phenomenon. The cultural and social dimensions of Culture Care arise from several influential factors as described in Leininger's Sunrise Model (Leininger, 2002). These factors include: a) cultural beliefs, b) kinship and social factors, c) religious and philosophical factors, d) educational factors, e) economic factors, f) political and legal factors and g) technological factors. These factors influence the individuals', families', and care providers' practices when faced with health, illness, and death (Sagar, 2012). The significant role of nurses as caring individuals and facilitators of communication depicts nurses bridging generic folk beliefs and professional nursing to provide culturally congruent care and promote quality health care outcomes (Sagar, 2012; Spangler, 1993).

Methodology

The study design for this research was a qualitative descriptive study using focus group method. Utilizing open-ended questions, the participants expressed their feelings, attitudes and perspectives in providing EOL care. The focus group method allowed FARNs to unveil common values, ideas, norms and beliefs about EOL care. The study was approved by Regis College Internal Review Board (IRB). Participants in the study were asked to fill out a form with ten demographic questions such as age, gender, race/ethnicity, birthplace, religion, education, and position in place of work, length of work experience as a nurse, previous EOL care training received, and the length if any. There were ten original focus group questions developed for this study. The project committee and the Regis IRB recommended to narrow down the questionnaire and to include probe questions. Based from the recommendation, the proposed ten questions were reduced to five questions. The five questions which included three probe questions were: 1) describe your knowledge about EOL care; 2) tell us what your attitude towards EOL care is; 3) tell us what your experiences with EOL care are; 4) describe your experiences with EOL; and 5) if you have other thoughts about EOL care, please share. The probe questions were: 1) describe what first comes to your mind when I say EOL care; 2) how do you describe your beliefs and feelings about EOL care; and 3) explain or give an example?"

Participants

A sample size of 6-12 participants was originally planned but 15 participants were obtained through purposive sampling. Participants were sought from the PNAA's database which was composed of Filipino-American nurses working in the US. The researcher sent flyers to 150 PNAA members selected from five chapters including Philippine Nurses Association (PNA) of New England, New Hampshire, Connecticut, New York and New Jersey to recruit participants for the focus group sessions. Members from these chapters were selected because of their proximity to Boston, Massachusetts. As few responded to the flyer, a snowball sampling was employed. Using the snowball approach (Polit &

Beck, 2012), additional participants were recruited through the recommendation of those who already agreed to participate in the study. The researcher contacted the members by email or phone call. The participants received an introductory letter as an invitation to join the focus group. It contained information about the date, time, purpose of the focus group and the inclusion and exclusion criteria for participation

The participants were informed that the study was approved by the Regis College IRB and the PNAA Research Committee. Participants' consent was implied upon agreement to participate in the focus group. In addition, the formal IRB Informed Consent form was completed by the participants at the beginning of the focus group. In the consent form, it explained the significance of maintaining confidentiality of the information shared by all participants of the focus group. An envelope containing a name card with pseudo names (to maintain anonymity with recording), demographic questionnaire, informed consent, debriefing forms and pens were given to participants at the start of the focus group session. The researcher welcomed the participants and provided brief introductions. The researcher informed participants on the purpose of the research study, nature of the focus group session including the need to maintain confidentiality of information shared during the focus group session, length of the interview which is between 60-90 minutes, and established ground rules such as speaking one at a time. The researcher informed participants that they can decline to answer any questions or withdraw from the study at any point.

Inclusion and Exclusion Criteria

The inclusion criteria for the study participants were: a) Filipino ethnicity - participant must have been born and raised in the Philippines; b) entry-level nursing graduate from an accredited nursing school in the Philippines and have migrated to the US; c) currently employed providing direct patient care in a hospital, long term care facility, rehabilitation center, hospice, and nursing home in the US; d) involved in direct patient care in any clinical area for a minimum of two years; e) have provided nursing care to individuals at the EOL.

The exclusion criteria were FARNS who were: a) administrators; b) educators in non-clinical areas or in academia; c) retired and; d) graduates from nursing schools in the US.

Setting

The settings for this study were in private conference rooms in a church or town libraries. The meeting places held in two states were safe, quiet, and in an accessible location to the participants. The meeting places had comfortable chairs arranged around a table and adequate lighting was provided. The temperature of the room was adjusted to ensure that participants were comfortable. During the session, the doors were closed to ensure privacy. Digital tape recorders were placed at both ends of the table. Participants sat in front of the researcher and the research assistant. Light refreshment, soft drinks, coffee, tea and water were provided.

Data Collection

The data collection ran for a period of six weeks with two-to-four participants per focus group sessions. The focus group was 60 to 90 minutes in length. A total of five focus groups were held with a total of 15 participants. The focus group session ended by the end of six weeks when data saturation occurred. Data saturation was met when no new information, no emerging themes, and no sub-themes were coming out from the focus group sessions.

The researcher was assisted by a research assistant who also had familiarity with the Filipino culture. The research assistant was a graduate student and had completed the National Institute of Health protecting human research participants' course. The research assistant was trained to take notes and document tone of voice, non-verbal cues, eye contact, body language, and gestures during the focus group interview. The research assistant also completed a Transcriptionist Confidentiality Agreement. Digital audio tape recorders were used to allow the researcher to facilitate the group session without interruption. The research assistant submitted all recording and notes to the researcher at the conclusion of each focus group session to maintain participants' confidentiality.

At the end of each focus group session, a debriefing was conducted. The researcher provided a summary of the discussion and asked participants if anything was missed. Participants were assured that data gathered were stored in a secured, password protected office computer for five years and can be accessed only by the researcher. At the end of the focus group session, all participants were given a $15 store gift card as a token of a gratitude. Information about EOL care website was also provided if requested by participants.

Results

All 15 participants who met the inclusion criteria in this study were females. All of the participants listed their race as Filipino and their religion as Roman Catholic. The ages ranged from thirty-four to sixty-five; all were born in the Philippines. Eleven of the participants' highest educational credential was a Bachelor of Science in Nursing (BSN); three participants were Master's prepared nurses and one was pursuing a Master's degree in Nursing. Prior to immigrating to the US, the length of their nursing experience in the Philippines ranged from six- and-a-half months to fifteen years. The length of experience working in the US ranged from ten years to forty-three years.

Six of the participants worked in a long- term rehabilitation facility, five were in an acute hospital, three were working on the intensive care unit and one worked in an out-patient department, but also worked part-time in the medical-surgical floor of the hospital. Eleven of the participants had training in EOL care while four of the participants reported no training. Of those who had training, eight received their training in the US, one received her training in the Philippines, and two received training in the Philippines and in the US. The type of training received was from hospital in-service education programs and ranged from one to three hours only. Eight of the participants received the training from hospital programs during orientation and annual training while three of the participants received the training by attending outside conferences.

Data Analysis

Colaizzi's Analytical Method of data analysis (Polit & Beck, 2012) was used by the researcher in this study to identify the themes. The transcripts of the focus group interviews were analyzed to extract emerging themes which were then divided into meaningful patterns. Coding and categorizing were employed to identify cluster of themes and reviewed for recurring themes. The recurring themes were assigned a numerical value and categorized and explored further for patterns and variations until final themes were identified.

Trustworthiness with data analysis was established by employing the four criteria developed by Lincoln & Guba (1985) which are: credibility, dependability, confirmability, and transferability of data collected. Credibility was achieved by establishing confidence in the truth of the findings and by the critical steps taken during data analysis which employed reflexive journaling, on-going self-reflection, and self-scrutiny during the application of Collaizi's seven-step data analysis method. Observing participants, interviewing, constant self-checking and interpretation of data using descriptive method within a social and cultural context made this study dependable and that findings can serve as a basis for future research study. As to confirmability, great effort was made to eliminate the researcher's bias. Although the researcher is of Filipino ancestry and is familiar with PNAA, the researcher remained objective, and set aside personal feelings, mindful of own body language, and tone of voice during the focus group sessions. The themes and sub-themes were directly derived from the information shared by the participants and not from the researcher's motivation, bias or interest. For transferability, the ability to generalize the findings is limited because of a small sample but the results of the study is very useful in providing information about FARNs knowledge, attitudes, and experiences towards EOL.

Four themes emerged to describe the knowledge, attitudes, and experiences of FARNs in the US towards EOL care. The major themes that emerged from the data analysis were: 1) a caring culture, 2) dying with dignity, 3) cultural dimensions at EOL, and 4) ways of knowing (knowledge adaptation). Two to four subthemes emerged in each of the four major themes. In the first theme, A Caring Culture sub-themes compassion and letting go emerged. In the second theme, Dying with Dignity, the two sub-themes were respecting patient's wishes and doing what is best for the patient. The sub-themes faith and religiosity and kinship and family presence emerged from the third theme, Cultural Dimensions at End-of-Life. There were four sub-themes on the fourth theme Ways of Knowing (Knowledge Adaptation). The four sub-themes were self-awareness, conflicts and struggles, facilitating communication and bridging the gap.

A Caring Culture

The participants described their beliefs, values, and attitudes towards the care of patients at EOL in detail to signify the first theme which is A Caring Culture. The sub-themes are compassion and letting go. Compassion is described as a show of respect, empathy, patience and understanding while letting go means allowing patients to die peacefully and comfortably in accordance to his or her wishes. Letting go is the phenomenon of care FARNs have incorporated into their caring attitude and comforting presence. These attributes of caring and providing comfort made up the Caring Culture of FARNs.

Sub-theme 1: Compassion. The FARNs' show of respect, empathy, patience, and understanding contributed to the caring culture. Compassion is the caring trait that allows FARNs to know and learn the individual needs and care preferences of patients at EOL. Caring comes naturally to Filipino-American Nurses as shared by a participant, "I think we are naturally soft; most Filipinos… very caring. I noticed not only on end-stage patients, I think it comes naturally for us to be caring.... I think we are more caring to the family, to the patient, we give more time and we give more comfort."

Sub-theme 2: Letting go is the care phenomenon FARNs have incorporated into their caring attitude and comforting presence. Letting go is a phenomenon of care delivered by FARNs especially when treatment options for the patient remained futile. It is the FARNs' awareness of what the patient wants and their understanding of the meaning of the patient's behavior when it is time for the patients to go. FARNs recognize that patients give signs and signals or manifest a behavior that means it is time to let them go. Letting go is described by one of the participants who said, "Sometimes the patient gives signal if they are ready… every time you put something, a tube, he pulls it so… patient gives signals to the family and health care practitioners that it is time to die, if needed, involve ethics committee for a

decision." A participant stated, "My father, on a breathing tube and a feeding tube, he removed all the tubes and said, I am just too tired, just let me go."

Dying with Dignity

Dying with dignity is the second theme with two sub-themes: respecting patient's wishes and doing what is best for the patient. In the sub-theme respecting patient's wishes, participants articulated the challenges they face in honoring patient's wishes. When allowing patients to die with dignity, participants expressed that it can raise ethical and moral dilemma among nurses especially when the treatment and interventions chosen by the patient can result to death. On the other hand, participants found solace and comfort in the second sub-theme which is doing what is best for the patient. The participants further explained that it also meant doing what is right for the patient.

Sub-theme 1: Respecting patient's wishes. For the FARNs, the patient is the center of what they do and everything is about the patient. The FARNs' nursing practice is governed by their ethical and moral responsibility to the profession, to themselves, and to the patient. One of the participant said, "Anyway, culture here is different than ours. Like for me… I will be DNR (Do not Resuscitate), DNI (Do not Intubate) and I don't want to be hooked up to anything. I would like to respect patient's wishes, just don't let them die in haste." The participants expressed that they will put aside their own beliefs and values and will put the patient's welfare first by honoring the patient's wishes. This sub-theme about respecting patients' wishes was exhibited by the following quote that was tearfully yet firmly expressed by a participant:

> I am just thinking, putting myself as the patient, I just want comfort, I don't want to be in pain, I want to be peaceful and comfortable and my family comes around, and I hope if I call, my call light, the nurse will be there, if I want something to drink, someone will give it to me.

Respecting patient's wishes can lead to a quality of life that is satisfactory and fulfilling for both the patient and the significant others. It also allows the patient to resolve whatever issues are left to be addressed and for the family to say goodbye peacefully. One of the participant said, "I asked my aunt, what do you want when the time comes? And she said, you all come home and bury me… I want you to buy me a dress, I will wear when I die… I did what my aunt said, it was the most beautiful death because we were all around her, we were praying for her, and she was surrounded by us." Another participant said, "I don't want them to feel the pain because dying is painful. I want to give them comfort, to advocate for patient's wishes, I don't want to prolong death." It was followed by another participant who said, "My experience is when the time comes, give the best we could and allow patient to die with dignity and at peace."

Sub-theme 2: Doing what is best for the patient. Decisions made at EOL can be conflicting and often challenging. Knowing what is right for the patient helps FARNs to overcome their ethical and moral dilemma about EOL care. FARNs believe in doing what is best for the patient as evidenced by the following excerpts, "What you want often times is not what happens, and that is the struggle that I have, I want her on Morphine or Ativan… why it does not look to them that he is suffering?"

Other treatment options such as ventilator support and nutritional support are another source of conflict as described by a participant who said, "… we ask why we keep her alive …… it was discussed with ethics and we slowly tapered her tube feedings, her care was so complicated until she died peacefully."

The participants expressed frustration on how EOL care is addressed in many institutions but also cognizant that EOL care will remain controversial as a topic because each person is unique, and one intervention does not fit all. A participant asserted that to address this dilemma regarding EOL care is to respect patient's wishes, to do what is right, to do the best for the patient and allow for death with dignity.

Cultural Dimensions of EOL

Cultural dimensions of EOL is the third theme that emerged in this research study. Participants of the focus group referred to as "in our culture," "the culture here," and "their culture" referring to EOL care life ways, values, and beliefs as manifested by the patients, their family members and/or significant others. In EOL care, there are cultural dimensions that exist. Primarily, participants mentioned family, kinship, faith, religion, and spirituality. From these cultural dimensions in EOL care, faith and religiosity and kinship and family presence were two sub-themes that emerged.

Sub-theme 1: Faith and religiosity. The care provided by FARNs at patient's EOL is influenced by their faith and religiosity. The participants of the focus group who are all Catholics expressed their anxiety over medications provided for the patients who are dying. A participant said, "It is hard for me to see a patient alert and oriented and the family would decide to take them off the ventilator and then give Morphine. I had a difficult time because of my religious belief."

Discussions on faith and religiosity were sentimental and emotional. Participants found comfort from knowing that their faith guides them in their decisions to help patients and families at EOL as described by a participant:

> When the time comes, the Lord is always in control, this is what the Lord wants, I tell myself, so when the Lord takes your life or when a loved one passes, I will always pray this is what the Lord wants.

FARNs are sensitive to the inclusion of a spiritual leader and are receptive and accommodating to the needs of a diverse group of patients when they perform rituals and ceremonies as part of EOL care.

Sub-theme 2: Family presence and kinship.
When FARNs talk about EOL care, kinship and family presence are discussed in detail especially when sharing their experiences about dying patients. The participants find it easier to describe their knowledge, attitude and experiences by describing their own personal experiences and the cultural influences it bring to them. A participant spoke about the value of family and said, "We don't put away our parents at EOL … our culture really influences on how we were brought up... My children saw me taking care of my parents so I changed my perspective, I don't want to burden them but, my children said they will take care of me."

The Philippine culture embraces family presence in every event of a person's life and at death and dying. There is a special respect and reverence granted to the elderly and to the presence of a family member during EOL. FARNs can be expected to provide the same care and to give the same attention for patients at EOL as they would if this were their own family. A participant said, "Anyway, I love my patients, I love doing this job, I cry when I see them die, especially when family cries." Another participant commented, "In the Philippines, we do not die alone, we hold the hands of the dying person that is why I am comfortable in the nursing home because dying persons are not left alone."

Ways of Knowing (Knowledge Adaptation)
The fourth and last theme that was identified in this study is ways of knowing or described as knowledge adaptation. This theme is based on the premise that by first understanding their own culture, nurses should acquire knowledge and understanding of the values and beliefs of other cultures (Jenko & Moffitt, 2006). There are four sub-themes that emerged from the theme of ways of knowing.

Sub-theme 1: Self-awareness. Being knowledgeable about self (self-awareness) made FARNs become sensitive to the challenges in delivering EOL care to patients. This allows FARNs to deliver care that is culturally appropriate for EOL patients of diverse cultures (cultural competence) as shown by the following excerpt from a participant:

> I have no first-hand knowledge about EOL because of the culture where we come from; here they keep them alive with medicine; it is gratifying that I am more aware about EOL.

Another participant said, "I had no idea with EOL during the start of my career, I have patient with cancer under my care…. My knowledge changed when I went to grad school, I learned about it in grad school". As they gain more experience in the care of patients at EOL here in the US, the FARNs also assimilated new knowledge to overcome their fear of caring for dying patients and decrease their anxiety over treatment options for the patients. This is clearly described by one the participants who said, "I have better acceptance now, before it is fear, sometimes I asked if it is worth it (meaning to feel fearful) and why don't I just let it go, so I have gotten over the fear of patient's dying."

Knowing one-self and what to believe is also a part of knowledge adaptation as shared by a participant. "Like my friend who is dying, we gave Morphine, I was burdened for a while… I understand more now…" She remembered how her outlook has changed about giving morphine. FARNs also valued the existence of vast resources here in the US. The most important discovery was FARNs' acknowledgement of the importance of Morphine for comfort as described by a participant who said, "It is about Morphine, it is more for comfort, I never did that for my parents. I did not know if my mother was suffering… If I knew then what I know now (sighed)...." and was followed by a statement made by another participant who stated, "My mother when she was sick in the Philippines, she suffered for so long. I think because we don't have hospice there, we don't have narcotics, and I think she was really suffering."

Discussions among participants during the focus group sessions paved the way for more learning and knowledge exchange about new ways to take care of patients at EOL. One of the participants said, "She is free of pain now, now that I understand what it is about, my attitude has changed, I felt it is more acceptable".

Sub-theme 2: Conflicts and struggles. The focus groups' transcripts revealed conflicts and struggles that the FARNs had during the delivery of EOL. "I do believe in the delivery of EOL care, I do believe we have to give them the best until the end of their life, but how far would we let science do, how soon do we stop… when do we stop… until the machine fails? That is my struggle."

FARNs also struggle on the emotional attachment they have with their patients at EOL. A participant expressed, "…. you cannot put yourself in the situation and be emotional but sometimes you cannot help it especially when you are taking care of the patient for a very long time, but as professional nurses, you cannot be emotionally affected."

Sub-theme 3: Facilitating communication to initiate conversations and decision making. Facilitating communication to guide families towards decision-making at EOL became a domain for FARN's nursing practice. FARNs became more comfortable initiating crucial conversations about EOL with family members. This was fully described by a participant who said, "In my work, because it is long-term care, you know the family and the patient's wishes, so I talk to the family and I tell them when their mom is declining. So, I am comfortable talking to the family". It showed that FARNs understand their patient's wishes before talking to the family. The constant interaction with the family made FARNs become more perceptive to the patients' family values and beliefs. This increased sensitivity made FARNs competent in initiating conversations with patients and family.

Sub-theme 4: Bridging the gap. The fourth subtheme identified is bridging the gap meaning FARNs recognize that culturally congruent care must be provided at EOL. This can be achieved through further education and training of nurses about EOL care. FARNs' experience and knowledge of new approaches about EOL care are ways to achieve cultural competency with EOL care. This knowledge adaptation is evidenced by the following excerpt:

> "Looking back we have very good laws for EOL care, we have advance directives, we have ethics committee that protect these patients and there are more compassion and programs in facilities now."

The FARNs demonstrated that they are now more familiar with new approaches to EOL care. One of the participants said, "It is the trend… if someone has end stage cancer, the trend is, … to put them on hospice". Another participant said, "Recently, there has been a different approach in dealing with EOL care. Before we do everything to help patients prolong their lives, is it because of the cost?" Knowledge of advance directives and treatment options gave FARNs more confidence in the care of dying patients.

Discussion

The FARNs' attributes to describe A Caring Culture were clearly shaped by their Filipino cultural traditions and life ways. For the FARNs, caring meant meeting the physical, emotional, social, and spiritual needs of a patient (Spangler, 1991). The sub-themes of compassion and letting go show how FARNs deal with the challenges of EOL care delivery. The sub-themes are reflections of their caring attitude and behavior towards patient care. A Caring Culture promote delivery of culturally congruent care. Spangler (1991) described cultural congruent care as: "A focus on the meaningful fit between the values, norms, and life ways of care givers and care recipients which lead to beneficial and satisfying outcomes" (p.122).

Care with compassion as it appeared from the results of the focus groups was not alien to the FARNs. Care with compassion is a show of empathy for the patient's illness experiences no matter on the individual's background (Sangvhi, 2006). Another culture care expression that emanates from the transcripts was patience which reflects respect for the patient. In a study by Spangler (1991), patience means you do not rush a patient, you respect them, you take your time, and listen to their point of view and you do not insist on what you want. Filipino nurses claim they are more patient and can tolerate more demanding patients which positively influences their relationship with their patient (Spangler, 1991).

For FARNs, letting go allows patients to go the natural way, a way that prevents pain or suffering by allowing patients to die peacefully and comfortably in accordance with his or her wishes. The FARNs recognized that the family may have difficulty letting go of loved ones when faced with these circumstances. The FARNs described their role as the facilitator of communication, as the source of support, and the provider of guidance for the family through the process of letting go.

Taylor and Russel (2010) explained that those approaching the end of their life need high quality care to support them to live as well as possible until they die, and to die with dignity. FARNs believed that this kind of care is essential and must be provided to the patients at EOL to give a dying patient dignity and peace of mind. This statement supported the second theme that emerged which is Dying with Dignity with two sub-themes: respecting patient's wishes and doing what is best for the patient. Respecting patient's wishes means allowing the patient to be in control of his/her destiny, to be comfortable to the degree that the patient wished for with cultural and spiritual practices (Thompson et al., 2003). It included honoring patient's beliefs, values, and practices of a personal, cultural, and spiritual nature especially among ethnic minority groups of patients whose desire may be different from the dominant culture. This principle is akin to doing what is best for the patient. The FARNs described their attitudes and beliefs about pain management but also expressed their understanding of its importance for comfort and for doing what is right for the patient and not to impose their own personal beliefs when delivering care to the patient.

The third theme identified was Cultural Dimensions at EOL with the following two sub-themes: faith and religiosity and family presence and kinship. Cultural dimensions at EOL was one of the most compelling elements brought forward by the FARNs during the focus groups discussions. FARNs' knowledge, attitudes and experiences towards EOL care is shaped and influenced by these cultural attributes particularly around FARNs' faith and religiosity as well as the FARNs' recognition that kinship and family presence dur-

ing death and dying are highly significant and influential in the care of dying patients.

The fourth theme was Ways of Knowing (Knowledge Adaptation) with four sub-themes. The first sub-theme which is self-awareness describes the ability of the FARNs to become aware of their own beliefs and values as well as their limitations. This personal way of knowing allows the FARNs to provide culturally congruent care at EOL. Further, small acts of kindness like a comforting touch, and giving adequate time to patients and families were important to patients (Sangvhi, 2006). The focus groups revealed that FARNs are knowledgeable of the new trends and existing resources for patients in EOL such as palliative care, hospice, advance directives, etc. This is indicative of the FARNs self-awareness and willingness to bridging the gap to achieve cultural congruence.

The sub-theme Facilitating Communication is a vital role for nurses. It is not only a challenge but an opportunity for nurses who are often at the bedside when the "bad news" is shared (Malloy, Virani, Kelly, & Munevar, 2010). FARNs recognize conflicts and struggles and the very complex dynamics of family situations and decision-making in EOL care. These complex dynamics create ethical dilemmas among FARNs. As such FARNs are often involved in educating and explaining care and treatment to the family.

Bridging the Gap, the last sub-theme also meant that the FARNs will facilitate communication and information sharing but will not influence the decisions made by the patient and family. The FARNs are respectful of patient's wishes therefore, they will merely provide the information needed by the family and guide them throughout the decision-making process.

All of the four themes identified in this study can be linked and associated with Leiningers' Theory of Culture Care Diversity and Universality. Leininger's Culture Care Diversity refers to the differences in meanings, values, or acceptable forms of care in or between groups of people while Culture Care Universality refers to the common care or similar meanings that are evident among cultures. As conceptualized in Leininger's theory, this study focused on EOL care delivered by the FARNs, their knowledge, interpretation, beliefs, values, and practices at EOL as they described their experiences in relation to their culture and their patient's culture. FARNs affirmed the value of delivering culturally sensitive and culturally congruent care at EOL for all patients.

Implications

The results of this study have an important implication for nursing practice, theory and research. For nursing practice, it is important for the nurse to understand the cultural and social dimensions of culture care as it relates to EOL. Having self-awareness regarding one's attitudes and beliefs towards EOL and understanding the patient's attitudes and beliefs toward EOL can impact the provision of culturally congruent care and positive EOL care outcomes. The theoretical implication of the study findings provide an understanding of the FARNs knowledge, attitude, and experience at EOL. To enhance knowledge of FARNs and nurses in general regarding EOL, the researcher recommends health care and educational institutions, to review existing EOL education and training to ensure that all nurses including FARNs possess the appropriate competencies related to EOL care. This can be facilitated by developing education training modules about EOL care directives, implementing advance care planning protocols and promoting evidence-based practice models. Nursing practice at EOL dictates the presence of a nurse who is compassionate, who provides comfort care and emotional support, and who is constantly present to guide and support the family during the patient's EOL. For future research, studies can be conducted to explore the knowledge, attitudes, and experiences of other ethnic minority nurses towards EOL. It is also important to look at effective strategies in providing education and training for nurses in EOL care.

Conclusion

This study paved the way for a better understanding of the culture of Filipino-American Registered Nurses (FARNs) particularly as it relates to their attitudes, knowledge and experiences with EOL care. This study confirms that nursing care and practice among FARNs is part of a culture that is caring and culturally sensitive. It is through FARNs caring ability, compassion, respect and understanding that patients' wishes are honored and that culturally congruent EOL care is achieved. Findings showed that FARNs advocate for their patients and help them to ensure their right to die with dignity and peace. Findings also showed that through self-awareness and being familiar with available resources at EOL, FARNs have become more culturally sensitive in delivering EOL. To promote competent and culturally congruent care at EOL for all nurses, including FARNS, schools of nursing should ensure that EOL care is incorporated in the nursing curriculum and that EOL resources such as hospice and palliative care are discussed during employee orientation

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JOURNAL OF NURSING PRACTICE APPLICATIONS & REVIEWS OF RESEARCH

Beliefs and Attitudes of American Nurses on Physician Assisted Suicide: An Integrative Literature Review

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Abstract

Background: With increasing awareness and legal issues on physician-assisted suicide (PAS) sweeping across the nation in today's society, it is important to investigate the predominant opinions, beliefs and attitudes of American nurses toward PAS, as it will have significant implications for nursing practice.

Objectives: The purpose of this integrative literature review (ILR) was to determine the predominant perspective of nurses, including their opinions, beliefs and attitudes regarding PAS suicide.

Method: An integrative literature review was conducted utilizing the following databases accessed through the DePaul University Library – CINAHL Complete, PubMed, PsycINFO, Academic Search Complete, ProQuest Dissertations and Thesis, and ProQuest Nursing and Allied Health Source.

Results: A total of twenty six articles were included in this ILR, which included ten survey studies of American nurses in oncology, critical care, and hospice practice settings, thirteen expert opinion papers, and three specialty nursing organizations' position statements. Descriptive statistics showed that of the ten peer-reviewed survey studies representing American nurses' opinions, beliefs and attitudes on PAS, only four studies demonstrated majority support by American nurses for PAS. However, of these studies where majority of nurses supported PAS, these nurses were not willing to participate in the execution of PAS. The thematic commonalities nurses expressed for supporting PAS included relief of pain and suffering, death with dignity, and self-determination. The predominant perspective of nurses in the remaining six studies was unsupportive of PAS. The thematic commonalities nurses expressed for opposing PAS included proper pain management, religion, personal morals and ethics, and the risk for abuse or misuse of PAS. Three of the unsupportive studies revealed nurses might perceive PAS differently if they had more information or knowledge on the subject. There were five and six expert opinions that were pro and individual nurse decision for PAS, respectively. Only two expert opinions were against PAS and they can be considered outdated since these opinions were published in 2000 and 2007.

Conclusion: This integrative literature review provided evidential support on the predominant beliefs and attitudes of American nurses, which is unsupportive of PAS. However, these surveys were conducted from 1993 to 2012, which may no longer represent the current trends on nursing opinions, beliefs and attitudes on PAS. The public's desire for PAS continues to grow with six states enacting laws that have legalized PAS. New PAS opinion surveys among nurses in AIDS care, critical care, hospice care, palliative care, home care, long-term care and cancer care settings are warranted. If nurses remain unsupportive of PAS, ethical dilemmas in clinical nursing practice will become pervasive particularly in states that have already legalized PAS. Further investigation of inconsistencies between American nurses' support for the legalization of PAS and their personal unwillingness to be present during the execution of PAS is needed. A concerted effort to educate American nurses on legal and ethical issues related to PAS can raise their awareness of their own personal moral views and can potentially alter their current stance on PAS.

Background and Significance

Death is inevitable. One can only hope to live a long, healthy life. Unfortunately, death approaches much more rapidly and painfully for some individuals. Patients have the right to instate advanced directives, in which no artificial or heroic life-sustaining measures can be made to extend the patient's life in the event of a declining health status. When a terminal prognosis is delivered or when death is imminent, patients who have specific advanced directives, such as including a do not resuscitate (DNR) order, receive comfort care only to alleviate pain and suffering (Burns & Truog, 2016). Thus, DNR patients with terminal illnesses are merely waiting for the deterioration of their health, in which no one can do anything to further prolong their suffering. The agonizing perpetuation of life for terminal patients brings into question physician assisted suicide (PAS). Patients with terminal prognoses who are mentally competent to make their own medical decisions are grappling with the dilemma of deciding their time of death or waiting for their dreaded impending death.

To date, few studies have been conducted to document the opinions, beliefs and attitudes of American nurses regarding PAS. With increasing awareness of PAS sweeping across the nation in today's society, nurses need to be aware of the terminally ill populations' perspective regarding PAS, as well as their own beliefs and attitudes toward it. If the legalization of PAS continues to spread across the nation, the doctor's hand will be writing the lethal prescription but the nurse's hand will be the one holding the dying patient's hand at the bedside. Religious, moral and ethical stances on the nurse's behalf are challenged by the topic of PAS. Monteverde (2017) recently wrote an editorial illuminating the actual and potential legislative changes on PAS not only in the United States but globally. Therefore, it is important to investigate the predominant opinions, beliefs and attitudes among American nurses towards PAS.

Nurses devote more time to patients than any other health care provider (DeLucia, Ott, & Palmieri, 2009). Subsequently, nurses often develop rapport that allows patients to more openly express serious concerns, such as those regarding end-of-life care. In fact, nurses are often the health care providers that are most intimately involved with a dying patient (Leiser, Mitchell, Hahn, Slome, & Abrams, 1998). Nurses are first-hand witnesses to tremendous suffering and must advocate for patient's autonomy to make decisions, while simultaneously following the legal distinctions and critically appraising the ethical dilemmas among various nursing actions at the end of life (Ersek, 2004; Monteverde, 2017).

Patients expressing their wish to end their lives are not foreign to the nursing discipline, particularly for nurses who practice where PAS is legal. Under the Death with Dignity Act, PAS is legal in the District of Columbia and six states: Oregon, Washington, Vermont, Colorado, Montana and California (ProCon.org, 2017). For terminally ill patients, or those with a prognosis of an illness that will result in death in six months or less, and who are mentally competent to request a prescription of medications to hasten their death, PAS is a viable option (Rose, 2007). Despite the legal status of PAS though, patients and families often ask nurses about information related to aid-in-dying. In several diverse clinical settings, nurses have received requests to participate in assisted death practices, which may jeopardize their professional nursing licenses (Ersek, 2004). Asch (1997) reported that approximately 17% of the 852 critical care nurses who responded to an anonymous, mailed survey have reported that they have received requests from patients or family members to perform euthanasia or assist in suicide. Matzo and Emanual (1997) also mailed anonymous surveys to a random sample of 600 registered as members of the Oncology Nursing Society (ONS) with 73.5% response rate (N=441). These authors found nurses that 30% (n=132) of the 441 respondents reported that they have received at least one request for PAS. Terminally ill patients can express their wish for PAS to their nurses or nurse practitioners in forty four States where it is not legally acceptable (Bradley, 2015).

Even in the States where PAS is legal, the American Nurses Association (ANA) Position Statement specifies that nurses are strictly prohibited from participating in PAS because it is in direct violation of the Code of Ethics for Nurses (ANA, 2013). However, regardless of the ANA's position, nurses work closely with PAS. In Oregon, one study found that 45% of surveyed hospice nurses have cared for a patient who had explicitly requested PAS (Miller et al., 2004). Furthermore, almost two-thirds of the entire sample, equating to 244 nurses, reported that they have cared for at least one patient whom they discussed PAS as a potential option in the past year. Although many nurses in this study did not report a high level of personal support for these patients, roughly 95% did believe that their hospice agency should be supportive of the patient's choice, or at the very least remain neutral (Miller et al., 2004). The lack of uniform standards of care addressing the role of nurses in responding to patient's request for a PAS is imposing a spectrum of ethical dilemmas with serious nursing practice implications including moral distress (Monteverde, 2017).

Purpose

The purpose of this integrative literature review (ILR) was to determine the predominant opinions, beliefs and attitudes of American nurses regarding PAS. With legalization of PAS reaching six States plus the District of Columbia (ProCon.org, 2017), professional nurses with their own personal values, moral standards and religious beliefs, are being affected. It is important to understand American nurses' per-

spectives regarding PAS because further legalization may extend roles and responsibilities to nurse practitioners who are practicing in rural areas where they are the only available providers who can prescribe the lethal dose of drug needed to carry out the PAS that a terminally ill patient is requesting (Bradley, 2015) or nurses may be required to stay with PAS cases until death is confirmed (Wurzbach, 2000).

Research Question

What is the predominant perspective of American nurses, including their opinions, beliefs, and attitudes regarding PAS?

Conceptual Framework

Bioethics Principles (Beauchamp & Childress, 1994) and the ANA Code of Ethics (ANA, 2015) guided the conduct of this ILR. As medical decision-making becomes more difficult and complex, it is often necessary for a bioethicist to intervene to help medical professionals, the patient, and the family make challenging medical decisions, especially at the end of life (Dennis, 2009). A bioethicist is an expert in bioethics, which is the study of controversial ethical issues emerging from new possibilities brought about by advances in biology and medicine. Bioethics, and ethics in general, is the major concept associated with PAS, especially from the nurses' perspectives. From an ethical perspective, is it right or wrong for the nurse to have any role in a patient's PAS?

According to Mathes (2004), "the ethical rightness or wrongness of an individual's choice to end his or her life (and thus the rightness or wrongness of providing assistance in the effectuation of that choice) depends upon the circumstances surrounding the decision" (p. 262). Thus, the ethicality of the situation is often decided on a case-by-case basis based on factors such as the degree of pain and suffering, the prognosis, the availability of effective treatment or palliative care, the age of the patient, and the patient's support system. Moreover, the nurses' beliefs about individual autonomy, dignity, and the nature of life also influence whether or not PAS is viewed as ethically justifiable. If it were concluded that PAS is ethically wrong, then it would follow that it is also wrong for a medical professional to assist in the act (Mathes, 2004, p. 262). However, if one decides that PAS is ethically acceptable, an ethical dilemma emerges whether a nurse is morally required to assist in a suicide that he or she believes to be ethically wrong.

According to the most recent version of ANA's Code for Ethics (ANA, 2015), which dictates the ethical expectations and requirements for the nursing profession, the nurse's ethical obligation is to promote, preserve, and protect human life. The ANA Code for Ethics (ANA, 2015) takes a clear stance against PAS by stating that, "Nurses may not act with the sole intent of ending a patient's life" (p. 19). However, the nurse may administer pain medications that may potentially hasten the patient's death based on the principle of double effect, which is defined as the justification of claims that a single act having two unforeseen effects, one good and one harmful (such as death), is not always morally prohibited if the harmful effect is not intended (Beauchamp & Childress, 1994). Additionally, the ANA deems withholding or withdrawal of treatment ethically acceptable due to the patient's right to exercise decisional authority, but the ANA considers the nurse's participation in PAS unethical (ANA, 2015). Thus, there is a fine line involving the ethical actions of nurses in end-of-life care.

Methods

Design

The design of this study was an ILR using the framework described by Whittemore and Knafl (2005). It was necessary to use an integrative literature review in order to generate the most accurate perspective nationwide including expert opinions from various nursing specialties. The literature was reviewed spanning roughly 24 years, from 1993 to 2017.

Literature Search Strategies

The following databases were accessed through the DePaul University Online Library: CINAHL Complete, PubMed, PsycINFO, Academic Search Complete, ProQuest Dissertations and Thesis and ProQuest Nursing and Allied Health Source. Each of these databases was searched spanning 1993 to 2017. The following keywords were utilized – nurse*, American, and PAS. Other search terms used include perspective, opinion*, attitude*, belief*.

Literature Search Limitations

In the initial search, CINAHL Complete produced 30 results, PsycINFO produced 11 results, PubMed produced 43 results, Academic Search Complete yielded 2 results, ProQuest Dissertation and Thesis also yielded 2 results and ProQuest Nursing and Allied Health Source produced 230 results. The literature search was further screened for full text, peer-reviewed, primary sources in English between the timeframe of years 1993 and 2017. Inclusion criteria used to screen articles were primary sources that included the perspective of American nurses towards PAS. Exclusion criteria included physicians' and foreign nurses' opinions, beliefs and attitudes toward PAS. After meeting inclusion criteria, excluding duplicates, and eliminating articles using the exclusion criteria, the databases yielded the following totals—CINAHL Complete 8 results, PsycInfo 0 results, PubMed 6 results, ProQuest Dissertation and Thesis 0 results and ProQuest Nursing and Allied Health Source 12

results. The number of studies selected based on total content was 26 articles. Figure 1 below shows a diagram of the selection process.

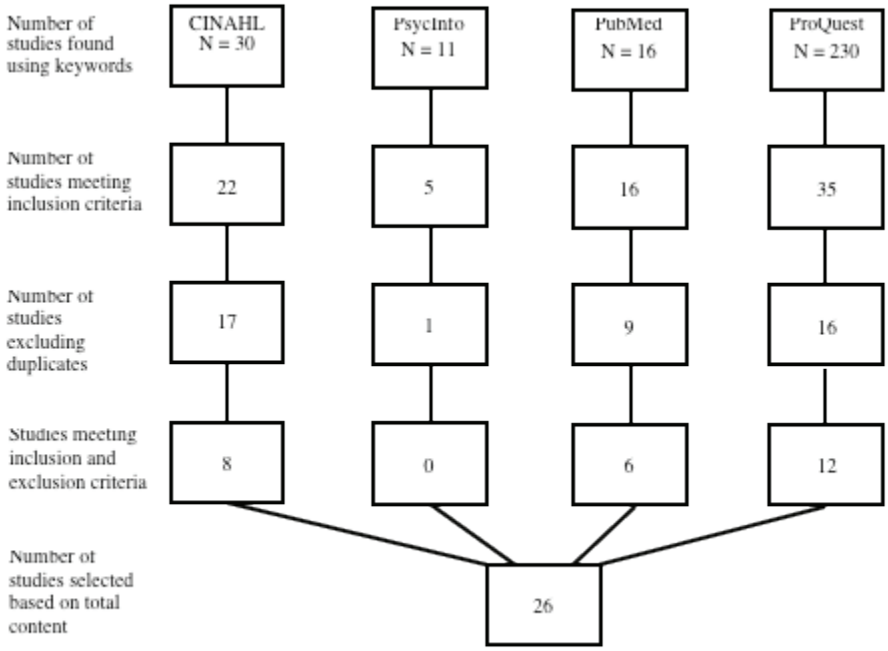

Figure 1 Diagram of review process and study selection adapted from Shimpuku and Norr (2012).

TABLE 1. A Summary of Published Studies on American Nurses' Perspectives on Physician Assisted Suicide

Sources in Chronological Order	Sample	Method	Results
Young, Volker, Rieger and Thorpe (1993)	1210 oncology nurses in the US	Survey of Oncology Nursing Society members	Overall conclusion: Majority is against PAS Response to Survey - 47% indicated they would vote to legalized physician-assisted suicide
Young (1994)	Expert opinion	N/A	Overall conclusion: Pro PAS Nurse's perspective on assisted suicide: - A nurse can ethically assist in a suicide for a competent, terminally ill patient when there is no other acceptable choice for the patient and maintain their professional integrity. - Nurses should not be required to violate their personal integrity through the performance of an act they consider morally objectionable.
Curtin (1995)	Expert opinion	N/A	Author's opinion: Individual nurse needs to have information on legal and ethical issues related to PAS and also needs to balance many factors including personal values, moral views, professional duty to patients and professional code of ethics

Data Synthesis and Analysis

Data reduction, data display, and data comparison are the steps included in Whittemore and Knafl's (2005) methodology for ILR. The primary sources of data were arranged chronologically by publication year given that personal opinion and attitudes can shift with time depending on the political climate and emerging public support for ethically challenging issue such as PAS. A data matrix that makes data interpretation easier on which studies or articles were pro or against PAS can be seen in Table 2 as suggested by Whittemore and Knafl (2005).

Data Reduction

Studies were selected and put into subgroups focusing on the content found in the abstracts. Selected studies were utilized based upon information regarding nurses' opinions, beliefs and attitudes on PAS.

Data Display

A summery of published studies on American nurses' perspectives on physician assisted suicide was included in this integrative literature review to compare and categorize relevant literature used in this study as seen on Table 1. The table was organized with the following categories: sources arranged chronologically, sample, method, and results. Examples of themes incorporated into this data matrix include, but are not limited to, request rates for PAS, supportive and unsupportive percentages for PAS and perspectives towards PAS, and challenges that present to nurses regarding PAS.

Kowalski (1997)	539 Nevada nurses	Survey about end-of-life beliefs	Overall conclusion: Majority is pro PAS Withdrawal of life support measures - 92% support (489 nurses) Double-effect euthanasia - 85% support (447 nurses) Physician-assisted suicide - 53% support (280 nurses) - Arguments for: patient autonomy, relief of pain and suffering, death with dignity, decreased quality of life, relief of burdens - Arguments against: sacredness of life, use of adequate comfort measures, professional ethical code, inappropriate motives - 75% (400 nurses) indicated they personally feel PAS may be justified in select cases but only 46% (240 nurses) would be willing to participate in PAS if it were legalized
Asch and DeKay (1997)	852 intensive care nurses for adults from all 50 states, Puerto Rico and DC 95% Female Average Age: 39 Average experience: 13 yrs Critical care experience: 9 yrs (35 hrs/wk) MICU: 49% CCU: 53% SICU: 44%	Random mailed survey to subscribers of *Nursing* magazine who practiced in critical care settings	Overall conclusion: Majority is Pro PAS Response to Survey - Importance of religion average rating was a 4.0/5 indicating a high level of religious feeling - 141 nurses (17%) reported receiving requests to engage and 16% participated - Support: relief of suffering - Oppose: fear, illegal - Only 19 nurses (2%) reported receiving requests outside a hospital or medical setting
Beder (1998)	100 gerontological nurses in the metropolitan New York area Largely educated women (58% BSN, 31% MSN) Mean age: 37 Mean years in field: 12.5 34% Protestant 32% Jewish 22% Catholic 6% Other 6% Atheist/Agnostic	Interview	Overall conclusion: Majority is Pro PAS Response to Interview - 43% received requests for assistance in dying - 46% believed physician-assisted suicide should be legal for all ages - 58% believed PAS should only be legal for elderly patients - Support: dignity and self-determination, relief of suffering, quality of life - Oppose: religion, elderly will feel they are a burden (pressured to choose) - Nurses were asked what they saw as their role and function in PAS:
			supporting the patient in their decision and beliefs, explore their decision, think through what they want at the end of their lives, advocate for the patient with the physician and then step out of the process, talk the patient out of the decision - Of the 46% in favor of PAS, 12% stated they would not attend the death - Discrepancy between the conceptual support for assisted suicide and the reluctance of nurses to attend an assisted death. - "While supported conceptually, actual practice of PAS was not supported by many who were in favor of legalization." - No statistical significance found between perspective of PAS and demographics (age, years in field, education).

Leiser, Mitchell, Hahn, Slome, and Abrams (1998)	212 nurses working at 24 facilities serving AIDS patients in San Francisco Bay Area 83% Female 86% Caucasian 75% Heterosexual 31% Catholic 27% Protestant 17% Non-traditional 12% None 46% BSN 22% MS/MSN 16% Associate's 28% Hospice 27% Acute Care 18% Outpatient 13% Research Clinic 8% Home Care	Anonymous, self-administered questionnaire	Overall conclusion: Majority is Pro PAS Beliefs About Assisted Suicide Majority (54%) agreed that "assisted suicide is in keeping with the principles of 'relief of suffering' " Majority (65%) agreed that "in keeping with humane care, it is sometimes acceptable to hasten a patient's death upon their request" Only 11% agreed that "assisted suicide under any circumstances is a sin" and 13% believe it is murder 29% agreed with the statement that "I would not assist a patient in committing suicide in any way" 43% agreed that "if it were legal, I would assist my terminally ill patients in committing suicide", while 22% were undecided 55% agreed that "fear of legal liability prevents me from assisting" whereas 38% agreed that "personal ethics prevent me from assisting in suicide" 61% agreed "spiritual growth can occur in the presence of physical suffering" 68% disagreed that they were more willing to help AIDS patients than patients with other diagnoses 87% agreed with "in terminally ill patients, it is best to prescribe sufficient doses of narcotics to control pain, even if it leads to lack of consciousness or decreased respirations" Additional Information Nurses are the largest group of healthcare professionals in the US. Nurses are often the healthcare provider most intimately involved with a patient during the time the patient is dying.
Kopala and Kennedy (1998)	Expert opinion	N/A	Overall conclusion: The final decision to support PAS is up to the individual nurse. Many factors need to be considered by the nurse before making a decision including personal values, religion, moral compass, state laws, respect for patient's autonomy and self-determination
White (1999)	Expert opinion	N/A	Overall conclusion: Pro PAS
Wurzbach (2000)	Expert opinion	N/A	Overall conclusion: Against PAS Nurses should look for alternatives to PAS
Praskwiecz (2000)	Expert opinion	N/A	Author's opinion: Individual nurse needs to manage ethical and moral issues related to PAS Individual nurse must seek clarification of own values through peer discussion, ethics committee referral, gaining more knowledge on bioethics
Saunders (2000; 2001)	Expert opinion	N/A	Overall conclusion: Individual nurse must be well-informed of the legal and ethical issues related to PAS regardless of the individual nurse's support for PAS or lack thereof

Ferrell, Virani, Grant, Coyne and Uman (2000)	300 nurses who completed a survey published in *Nursing98* and *Nursing Management* and 2,033 nurses randomly selected from Oncology Nursing Society (N = 2,333) Average years spent as nurse: 23 Mean age: 46 52% Hospital setting (70% in Oncology) 28% Outpatient/Ambulatory Care 40% Master's Degree 33% BSN 33% Staff Nurse 25% Clinical Special/NP	Descriptive cross-sectional survey → Mailed end-of-life (EOL) care survey	Overall conclusion: Majority is Against PAS Do you support the legalization of assisted suicide? Yes: 30% No: 70% Support: pain control, death with dignity Oppose: proper pain & symptom control Has any patient requested your help in getting a prescription for medication to use with the primary intention of ending his or her own life? Yes: 20% No: 80% 23% received a patient request for assisted suicide Nurses' experiences with unrelieved pain and poorly managed deaths were related to their beliefs about assisted suicide (p. 450).
Puntillo et al. (2001)	906 members of American Association of Critical-Care Nurses employed in adult med-surg ICUs Mean age: 42 Female: 95% Ethnicity: 89% White, 6% Asian 94% Direct Care/Staff Nurse 88% full-time employee	Mailed survey	Overall conclusion: Majority is Against PAS Response to Survey 83% disagreed with the action of assisted suicide Oppose: religion, comfort measures Support: relief of pain & suffering 37% reported they had been asked to hasten a
	49% BSN, 42% below BSN, 9% MS/MSN		patient's death at least once
Matzo and Schwarz (2001)	441 oncology nurses Worked 20+ hr/wk Oncology Nurses Society member for at least 2 years Worked with adult oncology patients	Survey including written comments	Overall conclusion: Majority is Against PAS Response to Survey 131 (30%) indicated they had received a request for large amounts of drugs so that a patient could end his/her own life by OD 25% of nurses that responded included written comments about the uncertainty and distress that nurses experience in the "gray and persistently uncomfortable" area of relieving pain at the end-of-life. Support: relief, right to take own life (self-determination), suffering from loss of independence and dignity Against: moral, religious, legalization would complicate oncology nursing, potential for abuse, pressured to choose
Ganzini et al. (2002)	306 Oregon hospice nurses and 91 social workers for a total of 397 participants (71% of Oregon hospice nurses and 78% of social workers) Nurses average Age: 48 Years of hospice experience: 7.6 37% Rural area 38% Medium-sized city 29% Large city	Mailed questionnaire to nurses and social workers enrolled in hospice programs	Overall conclusion: Majority is Pro PAS Response to Survey 45% have cared for one or more patients who had explicitly requested a prescription for lethal medication under the DWDA Of those 45% who cared for patients who have requested, 57% of hospice nurses support the DWDA while 11% neither support nor oppose, and 32% oppose Of those 45% who cared for patients who have requested, 42% of hospice nurses responded "actively support in some or all cases" to attitude toward requests for assistance with suicide, while 57% neither support nor oppose

Volker (2003)	36 Oncology Nursing Society members	Qualitative: Randomized mailing	Overall conclusion: Majority is Against PAS Response to Survey - Of the nurses in the study who received a request for assisted death, all denied the requests so this study shows that the nurses who received requests for AD did not support a terminally ill patient's self-determination for AD (refusal to engage) - Nurses who received and denied requests for assisted death implemented alternative strategies (pain management, medication education, regain self-esteem, alleviating fears of dying, spirituality interventions, being present, acceptance and not feeling like a burden) - Nurses who did not receive requests for assisted death described how they prevented requests (able to control pain and symptom management, medication management, sedation, patient counseling and advocacy - "Because there is potential conflict between the lay public's desire for AD and nurses' reluctance to participate directly in AD, the nursing profession should continue to address resulting ethical dilemmas."
Ersek (2004)	N/A	Expert Opinion	Overall conclusion: Final decision to support PAS is up to the individual nurse Challenges of Assisted Suicide: - Some nurses will decide to participate in assisted death regardless of the possible professional and legal the legalized practice of assisting a patient to die. Nurses in both situations need to understand their rights, as well as the legal and ethical implications of their actions. - Although nurses must consider the professional and societal perspectives regarding assisted death, ultimately the individual clinician must decide for himself whether or not to support and participate in assisted death.

Harvath et al. (2004)	307 hospice nurses and 83 social workers in Oregon Nurses: Average age: 49 Years in hospice: 7 94.7% Female 55.6% serve urban area 24% religious affiliation Importance of religion (0-10): 6.7 Importance of spirituality (0-10): 9.3	Mailed questionnaire	Overall conclusion: Majority is Against PAS Response to Survey Social workers significantly more supportive of ODDA than nurses, but no significant differences between nurses and social workers on their support for patients choosing PAS or VRFF (voluntary refusal of food and fluids) Nurses significantly more supportive of VFRR than PAS. 69% agreed that VRFF is fundamentally different from PAS. Less supportive of PAS and more likely to consider it immoral. Only 2.6% thought VRFF was immoral or unethical. The more important the person's religion, the less supportive they were of PAS & VRFF. But no significant correlation between age, years in hospice, location of hospice, or religious affiliation of hospice organization.
Rose (2007)	Expert opinion	N/A	Overall conclusion: Against PAS
			Definitions and Concepts Confines of the Death With Dignity Act ANA Positions
Dennis (2009)	Expert opinion	N/A	Bioethics Information Bioethicist: hospital staff person whose role is to help the medical professionals, the family, and the patient make difficult medical decisions, especially for those patients at the end of their life. Nurses must be knowledgeable on bioethical issues related to PAS.
Clymin, Jablonski, Jacobson, and Feldt (2012)	516 nurses licensed in the state of Washington	Emailed survey with a link to SurveyMonkey	Overall conclusion: Majority is Against PAS Response to Survey 46% of nurses' comments expressed strong support for the DWDA Support: humane right to choose, death with dignity 35% of nurses' comments demonstrated lack of knowledge about DWDA and 46% expressed desire for more information 26% expressed opposition to or concerns about the DWDA due to religion, personal ethics and values, morals, hospice programs, fear 75% of comments supported that if a patient asked about the DWDA they would refer them to someone with answers Nurses can alleviate personal fears as well as professional and moral discomforts by clearly understanding the law and being prepared to respond to patients requests

American Nurses Association (2013)	N/A	Position Statement	Overall conclusion: Against PAS Prohibits nurses from participating in assisted suicide
National Hospice and Palliative Nurses Association (2015)	N/A	Position Statement	Overall conclusion: Against PAS Does not support physician-assisted suicide and believes high quality end-of-life care needs to be emphasized
Oncology Nursing Society (2015)	N/A	Position Statement	Overall conclusion: Against PAS Does not support the nurses' assistance in assisted suicide
Oregon Nurses Association (2015)	N/A	Position Statement	Overall conclusion: Pro PAS Allows nurses to be present during patient's self administration of a lethal dose of medication. Prohibits patient abandonment by a nurse who does not morally agree with assisted suicide but allows transfer of responsibility of patient's care to another provider.
Bradley (2015)	Expert opinion	Opinion	Overall conclusion: Pro PAS Nurse practitioners should be prepared to carry out legal PAS in states where physicians may not be available to grant patient's request for assisted suicide.
Monteverde (2017)	Expert opinion and editorial on global perspectives on PAS. Actual and potential legislative changes on PAS in the US and around the globe were explored.	Editorial	Author's opinion: Pro PAS Author is from Switzerland where PAS is legally condoned except for selfish reasons. In Switzerland, PAS has a broad public support.
Vogelstein (2017)	Expert opinion	N/A	Author's opinion: Pro PAS The author critically examines the stance of ANA on PAS and argues that the ANA position statement on PAS lacks justification for its negative stance on PAS

TABLE 2. Data Matrix on *American* Nurses, Nursing Ethics Experts and *American* Nursing Organizations' Stance on Assisted Suicide

Sources in Chronological Order	Support for Assisted Suicide	Not Supportive for Assisted Suicide	American Nurses Need More Information (Legal and Ethical) and Must Examine One's Moral Views on PAS
1. Young et al. (1993)		X	
2. Young (1994)	X Author's Opinion		
3. Curtin (1995)			Author's opinion X
4. Kowalski (1997)	X		
5. Daly, Berry, Fitzpatrick, Drew and Montgomery (1997)			X
6. Leiser et al. (1998)	X		
7. Beder (1998)	X Only for the elderly		
8. Kopala and Kennedy (1998)			X
9. White (1999)	X		
10. Wurzbach (2000)		X	
11. Ferrell et al. (2000)		X	
12. Praskwiecz (2000)			Author's opinion X
13. Saunders (2000; 2001)			X
14. Matzo and Schwarz (2001)		X	X
15. Puntillo et al. (2001)		X	
16. Ganzini et al. (2002)	X		
17. Volker (2003)		X	
18. Miller (2004)	X		
19. Clymin et al. (2012)		X	X
20. American Nurses Association (2013)		X	
21. National Hospice and Palliative Nurses Association (2015)		X	
22. Oncology Nursing Society (2015)		X	
23. Oregon Nurses Association (2015)	X		
24. Bradley (2015)	X Expert Opinion		
25. Monteverde (2017)	X Expert opinion		
26. Vogelstein (2017)	X Expert opinion		

Data Comparison

Table 2 and Table 3 display the process of how data was analyzed to examine thematic commonalities and answer the research question regarding nurses' predominant perspective on PAS. Table 2 displays nurses' position regarding supporting or opposing PAS, whereas Table 3 depicts the common themes nurses reported for supporting or opposing PAS. Little is truly known about nurses' attitudes and beliefs concerning the controversial topic of PAS. Although there were many studies that show the prevalence of requested PAS, there was minimal information available regarding nurses' perspectives. Much of the literature focused on the role and attitudes of physicians in PAS and disregarded the fact that nurses also have a strong presence in this PAS debate. Unfortunately, the ten survey studies that did investigate the nursing perspective on PAS, most were outdated from the late 1990's to early 2000's. The two most recent surveys on nurses related to PAS were done by Miller et al. (2004) and Clymin, Jablonski, Jacobson and Feldt (2012) involving Oregon state hospice nurses and Washington State nurses, respectively.

TABLE 3. Thematic Findings Regarding Arguments Nurses' Made Concerning Assisted Suicide

	Rationale for Supporting PAS			Rationale for Opposing PAS				Lack of Information
Sources in Chronological Order	Relief of Pain & Suffering	Death with Dignity	Self-Determination (Autonomy)	Proper Pain Management	Religion	Personal Morals/Ethics	Abuse/ Pressure to Choose	Uncertainty
Young et al. (1993)	X	X		X		X	X	X
Kowalski (1997)	X	X	X	X		X	X	
Leiser et al. (1998)	X				X	X		X
Beder (1998)	X	X	X		X		X	
Ferrell et al. (2000)	X	X		X				
Matzo and Schwarz (2001)	X		X		X	X	X	X
Puntillo et al. (2001)	X			X	X			
Volker (2003)				X		X		
Harvath et al. (2004)	X			X		X	X	
Miller et al. (2004)	X	X						
Clymin et al. (2012)		X	X	X	X	X		X

Findings and Discussion

Nursing Organizations' Positions

As previously mentioned, the American Nurses Association has taken a firm stance on not supporting nurses' involvement in PAS. In fact, the American Nurses Association Position Statement (2013) specifies that nurses are strictly prohibited from participating in PAS because it is in direct violation of the Code of Ethics for Nurses. Similarly, the ONS position statement does not support PAS, but does recognize the supportive role of nursing in the dying process (ONS, 2011). The National Hospice & Palliative Nurses Association (2011) also does not support PAS and encourages nurses to continually improve quality end-of-life care. However, the Oregon Nurses Association (2015) supports nursing presence during a patient's self-administration of a lethal dose of medication.

Nurses' Perspectives on PAS Based on Survey Studies

After reviewing the literature, the predominant perspective of nurses was unsupportive of PAS. Of the ten peer-reviewed survey studies with descriptive statistics representing nurses' perspectives of PAS, only four studies demonstrated majority (50% plus 1 of the study sample) support by nurses for PAS. However, of the four studies where majority of nurses supported PAS, the majority of the nurses were not willing to participate in the execution of PAS. Therefore, a disconnect exists between nurses' perspective on the legality of PAS and their personal willingness to be present during the execution of PAS.

On the contrary, six of the ten peer-reviewed survey studies showed that the majority of study participants were unsupportive of PAS. Three of these six survey studies were strongly unsupportive of PAS. The other three studies were also unsupportive of PAS, but revealed nurses might need more information regarding PAS before taking a stance. The percentages were very close to being supportive of PAS, so it is possible that with more information, a majority of nurses may alter their perspective.

Nurses Supportive of PAS

Kowalski (1997) surveyed 539 Nevada nurses regarding end-of-life beliefs, in which 53% supported PAS. The rationale these nurses expressed for supporting PAS included relief of pain and suffering, death with dignity, and the patient's right of self-determination. Furthermore, 75% of nurses personally felt PAS may be justifiable in some cases, but only 46% of those would be willing to participate if PAS were legalized in Nevada. However, 92% of nurses supported withdrawal of life-supporting measure, and 85% supported double effect euthanasia. Therefore, a vast majority was willing to administer an unsafe, potentially lethal dose of pain medication, not in an attempt to end life, but with intentions of relieving pain. Those who were unsupportive of PAS have expressed their rationale for not supporting PAS ranging from ethical concerns, availability of adequate alternative comfort measures, and the risk for abuse or misuse of PAS or inappropriate motives (Kowalski, 1997).

Leiser et al. (1998) received responses to an anonymous questionnaire from 212 nurses, who worked at 24 different San Francisco healthcare facilities serving AIDS patients. The majority of the sample were female, Caucasian, heterosexual, catholic nurses working at hospice or acute care facilities. Of the 212 nurses, 54% supported PAS for its ability to relieve suffering. Moreover, 65% of nurses reported, "it is sometimes acceptable to hasten a patient's death upon their request" (Leiser et al., 1998, p. 28). Similar to Kowalski's (1997) study, although majority supported PAS, only 43% of nurses reported that they would help with the process if it were legalized. Opposition to nurses' participation during PAS was due to religion or fear of legal consequences (Leiser et al., 1998).

Ganzini et al. (2004) mailed a questionnaire regarding PAS to Oregon nurses taking care of patients who were enrolled in hospice programs. The 306 nurse sample was reduced to 122 nurses, which included only nurses who responded to have cared for at least one patient requesting PAS. The average age was 48 years old with an average of 7.6 years of hospice experience. Of the 122 experienced nurses, 57% supported the Death with Dignity Act in Oregon, while 11% neither supported nor opposed it. Ironically, although 57% supported the act, only 42% reported they would support a patient's request for PAS (Ganzini et al., 2004).

Beder (1998) interviewed 100 gerontological nurses, predominantly educated women with an average of 12.5 years of experience in New York. However, there was no statistical significance with the demographics. Of the sample, 58% believed PAS should be legal for elderly patients, while 46% supported legalization of PAS for all ages. The participants supported PAS because they believed that PAS respects patients' autonomy, allows death with dignity, and ultimately relieves pain and suffering. Although 46% supported PAS, 12% reported they would not want to be involved in the process. Nurses who opposed PAS reported

Table 4. Author's update on the status of PAS in the United States (Procon.org, 2017)*

Six States with Legalized PAS	Mechanism of Legalization
California	State legislation
Colorado	State legislation
Oregon	State legislation
Vermont	State legislation
Washington	State legislation
Montana	Court Ruling
District of Columbia	Legislation in the Council of the District of Columbia

*Forty four States have laws or common laws that declare PAS as illegal. These include thirty three States that have laws prohibiting PAS, the States of AL, MA and WV that prohibit PAS by common law, and the States of NV, NC, UT and WY that have no specific laws regarding PAS; therefore, these four States may not recognize common law, or are otherwise unclear on the legality of PAS. The federal government has no laws on PAS. The federal government upholds PAS laws should be handled at the state level.

religious reasons, as well as the potential for elderly to feel pressured into choosing death as their rationale for opposing PAS (Beder, 1998).

Young (1994) released her personal opinion on professional integrity as the basis for supporting PAS. Young stated, "it is ethically acceptable for a nurse to assist a competent, terminally ill patient in PAS when there is no other acceptable choice" (p. 13). However, Young (1994) also contends that if nurses morally disagree with PAS, they should not compromise their own personal integrity.

Nurses Unsupportive of PAS

Ferrell, Virani, Grant, Coyne, and Uman (2000) received survey responses from 2333 nurses, which were randomly chosen from the ONS membership. Of the 2333 nurses, 70% responded no to supporting the legalization of PAS due to the ability to maintain adequate pain and symptom control. The 30% of nurses who were supportive of PAS reported respecting patients' dignity and allowing relief of pain and suffering as their main reasons for supporting PAS (Ferrell et al., 2000).

Puntillo et al. (2001) mailed a survey to 906 members of the American Association of Critical Care Nurses employed in adult medical-surgical intensive care units, in which 83% disagreed with PAS. Although nurses believed PAS relieved pain and suffering, the majority of survey respondents opposed PAS due to religion and availability of appropriate comfort measures (Puntillo et al., 2001).

Volker (2003) randomly mailed surveys to ONS members and received 36 qualitative survey responses. Of the nurses in the study who received a request for assisted death, all denied the patients' requests and reported implementing alternative strategies such as pain management and alleviation of fears of dying. The nurses in the study who did not receive a request for assisted death described how they prevented requests via medication administration, sedation and counseling (Volker, 2003).

Nurses Unsupportive but Uncertain or Needing More Information

Clymin, Jablonski, Jacobson and Feldt (2012) emailed a survey to 516 nurses in the state of Washington, where 46% of nurses reported strong support for the Death with Dignity Act due to their strong beliefs in patients' dignity and autonomy, but 54% were unsupportive due to religion, personal ethics, and proper pain management. In addition, 35% of nurses' comments demonstrated lack of knowledge about the Death with Dignity Act, while 46% also expressed desire for more information (Clymin et al., 2012).

Similarly, Matzo and Schwarz (2001) received survey responses from 441 adult oncology nurses, in which 243 nurses reported receiving requests for PAS from patients, but only six nurses were willing to help a patient with PAS. These nurses supported PAS for its ability to respect patients' autonomy and relieve suffering. However, the majority of survey respondents was unsupportive due to personal ethics, religion, and the potential for abuse of PAS. Moreover, 25% of responses included written comments about the uncertainty and distress that nurses experience in the "gray and persistently uncomfortable" areas of PAS (Matzo & Schwarz, 2001).

The final study involved a nationwide questionnaire to ONS members with 53% of 1210 nurses unsupportive of legalization of PAS (Young, Volker, Rieger, & Thorpe, 1993). Majority of survey respondents expressed opposition to the legalization of PAS due to a lack of knowledge of what legalization would entail. Of the 47% that were supportive of PAS, the majority reported reluctance to participate in the execution of PAS. It would have been interesting if Young et al. (1993) repeated the questionnaire post-legalization of PAS in Oregon in 1994, Washington in 2008, Montana in 2009, Vermont in 2013, California in 2015, Colorado and District of Columbia in 2016 (ProCon.org, 2017) to see if the percentage of support changed. Up-to-date information on state-by-state status of PAS laws can be seen on Table 4.

Conclusion

This integrative literature review provides evidential support on the predominant beliefs and attitudes of American nurses, which is unsupportive of PAS. This conclusion must be interpreted with caution given that the surveys were conducted from 1993 to 2012, which may no longer represent the current trends on nursing opinions, beliefs and attitudes on PAS. The public's desire for PAS continues to grow with six states enacting laws that have legalized PAS. New PAS opinion surveys among nurses in AIDS care, critical care, hospice care, palliative care, home care, long-term care and cancer care settings are warranted. If nurses remain unsupportive of PAS, ethical dilemmas in clinical nursing practice will become pervasive particularly in states that have already legalized PAS. Further investigation of inconsistencies between American nurses' support for the legalization of PAS and their personal unwillingness to be present during the execution of PAS is needed. A concerted effort to educate American nurses on legal and ethical issues related to PAS and raising their awareness of their own personal moral views may alter their lack of support for PAS.

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JOURNAL OF NURSING PRACTICE APPLICATIONS & REVIEWS OF RESEARCH

An Overview of Hypertension Among Filipino Immigrants in the United States: Implications for Research, Practice, and Health Policy

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Abstract

Background: A limited number of studies on cardiovascular health on Asian Americans have consistently highlighted the disproportionately high prevalence of hypertension among Filipino immigrants when compared with other Asian American subgroups. Despite this alarming information, there is very little information in the literature that explore the factors that relate to this chronic illness among Filipino immigrants in the United States (US).

Objective: The purpose of this integrative literature review is to provide an overview and summary of the current literature and evidence that relate to hypertension among Filipino immigrants in the US and its implications for research, practice, and health policy.

Methods: The following data bases were accessed and searched: PubMed, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Excerpta Medica dataBASE (EMBASE) using the following search terms and their combinations were entered using Boolean logic: Filipinos, Filipino immigrants, Filipino Americans, hypertension, high blood pressure, heart disease, and cardiovascular disease.

Results: A total of 20 studies were included in the integrative literature review. A significant finding of this review indicates a consistently high prevalence of hypertension among Filipinos when compared with other racial and ethnic groups, not just Asian Americans. The findings from this integrative review also highlighted some knowledge gaps that could explain why this health inequity continues to afflict this population.

Conclusions: Addressing the knowledge gaps identified in this literature review could increase our understanding of hypertension as experienced by Filipino immigrants and could lead to culturally-tailored interventions and health policies to reverse the current trend of this health inequity.

Keywords: hypertension, Filipinos, Filipino Americans, cardiovascular health, health inequity

Hypertension—defined as having a diastolic blood pressure of >90 mm Hg or systolic blood pressure of >140 mm Hg on 2 or more occasions—is the leading risk factor for death and disability globally (Lim et al., 2010). In the United States (US), hypertension is the leading risk factor in the development of cardiovascular disease and stroke across all ethnic/racial groups (Lim et al., 2010; Mozaffarian et al., 2015). High quality treatment that addresses these health inequities requires a comprehensive understanding of how hypertension affects racial subgroups.

Asian Americans constitute 5.6% of the US population and belong to the one of fastest growing ethnic/racial groups in the US (Shresta & Heisler, 2011; U. S. Census Bureau, 2010). About a quarter of Asian Americans have hypertension, and it is reportedly more common among those who are older and have lower levels of education (Aoki, Yoon, Chong, & Carroll, 2014). Several studies indicate that the prevalence of hypertension among Asian Americans is similar, and potentially even lower, compared to the general US population. However, there is great variability and heterogeneity in the prevalence and management of hypertension and other cardiovascular risk factors among the diverse subgroups that comprise the Asian American population. Many studies on cardiovascular health focusing on Asian Americans have consistently highlighted the high prevalence of hypertension among the Filipino immigrant population in the US when compared with other Asian American subgroups (Ancheta et al., 2015; Klatsky & Armstrong, 1991; Zhao et al., 2015; Stavig, Igra, Leonard, McCullough, & Oreglia, 1986; Stavig, Igra, & Leonard, 1988).

Currently numbering about 3.9 million Filipino immigrants belong to the third largest group of Asian immigrants in the US (Pew Research Center, 2018). As with the broader Asian American population, the number of Filipino immigrants in the US is expected to increase (Shresta & Heisler, 2011), and as such there is a need to investigate how hypertension affects this population. In addition, understanding the factors that are associated with this chronic disease and how Filipino immigrants manage hypertension would be key to decreasing this health inequity. Thus, the purpose of this integrative review is to provide an overview and summary of the current literature and evidence that relates to hypertension among Filipino immigrants in the US and its implications for research, practice, and health policy. Filipino immigrants refer to those Filipinos who were born in the Philippines and reside in the US on a permanent or temporary basis. To provide a more comprehensive perspective and examination of the evolution of how hypertension is examined among Filipino immigrants in the US, the studies will be presented in a chronological narrative format.

Search Strategies

The following data bases were accessed and searched: PubMed, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Excerpta Medica dataBASE (EMBASE). To widen the scope and obtain a comprehensive picture and research trend of the variables of interest, all studies that included Filipino immigrants as a subpopulation were included, regardless of the date of publication as long they address the topic of interest. The following search terms and their combinations were entered using Boolean logic: Filipinos, Filipino immigrants, Filipino Americans, hypertension, high blood pressure, heart disease, and cardiovascular disease.

The initial search yielded 129 studies. The abstracts and titles of these studies were reviewed to determine if they are suitable to be included in the study (see Figure 1). Those articles whose abstracts were deemed to be potentially relevant were read in full to further ascertain their relevance based on the topic of interest and the purpose of the integrative review. A total of 20 studies were included in the review based on the following inclusion criteria: quantitative and qualitative research published in English and conducted in the US addressing hypertension among Filipino immigrants in the US, and whose study participants are 18 years or older.

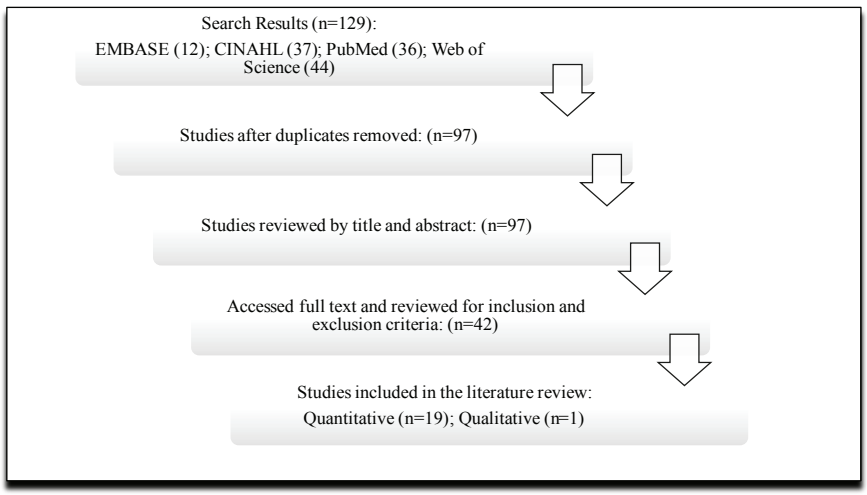

Figure 1. PRISMA Diagram

Results

The majority of studies found in the literature on hypertension among Filipino immigrants in the US used descriptive and correlational designs (See Table 1). The studies are discussed chronologically starting from the earliest to the most recent studies found in the literature to present a comprehensive picture of how hypertension continues to pose as a major health risk for this population.

Table 1
Summary of Studies on Hypertension among Filipino immigrants in the United States.

Authors/Year	Study Design and Methods	Key Findings
Stavig, Igra, & Leonard (1984)	Systematic multi-stage cluster sampling of Asian Americans living in California	Filipinos have the highest rates of hypertension (24.5%) compared to other Asian American subgroups that include Chinese (15.7%) and Japanese (12.5%) Americans, and Whites (20.2%), and Hispanics (15.8%).
Stavig, Igra, Leonard, McCollough, & Oreglia (1986)	Use of large secondary data from NHLBI of mortality rate in California for each three year period (1969-71 and 1979-1981)	Hypertension-related deaths are highest among Blacks, followed by Whites, and lowest for Asian and Pacific Islanders.
Klatsky & Armstrong, (1991)	Secondary data from a Northern California health care program database	Increased risk of hypertension among Filipino men (OR = 1.3, 95% CI = 1.0-1.6) and women (OR = 1.5, 95% CI = 1.2 - 1.9) when compared with Chinese, Japanese, and other Asian American subgroups.
Stavig, Igra, & Leonard (1988)	Secondary data analysis from the 1979 California Hypertension Survey	Prevalence of hypertension was second to Blacks and highest compared to other Asian and Pacific Islanders. Further analysis revealed that prevalence of hypertension among men between 18 to 49 years in the sample was highest among Filipinos (30.5%) followed by Other Asian and Pacific Islanders (28.5%), and Blacks (28.3%). The study also revealed that Filipinos' rate of uncontrolled hypertension (24.5%) was comparable to Blacks (26.1%).
Klatsky, Tekawa, & Armstrong (1996)	Secondary data analysis from the 1979 California Hypertension Survey	Filipino men and women had the highest prevalence of hypertension compared with Chinese, Japanese, and Other Asians.
Ryan, Shaw, Zapolanski, Murphy, Valle, & Myler (2000)	Secondary data analysis from cardiac center data base	Higher incidence of hypertension among Filipinos (79%) than Whites (61%) (p=<0.0001).
Barnes, Adams, & Powell-Griner (2008)	Secondary data of using 2004-2006 NHIS data	Filipinos have the highest prevalence of hypertension (27%) and obesity (14.1%) among Asian Americans.
Taira, Gelber, Davis, Gronley, Chung, & Seto (2007)	Secondary data analysis (n=3,812) of data from a large health plan organization in Hawaii	Filipinos in the study were the least adherent (48.9%) among the group when compared to White (58.9%), Japanese (64.6%), Chinese (58.4%), Korean (53.4%), and part-Hawaiian (53.9%) patients.
Ye, Rust, Baltrus, & Daniels (2009)	Secondary data analysis from 2003-2005 NHIS data (n=633)	Among Asian Americans, Filipinos were more likely to have hypertension (OR = 1.18, 95% CI = 1.02-1.44) when compared to Whites.
De Castro, Gee, & Takeuchi (2008)	Secondary data analysis of data from the Filipino American Community Epidemiological Study (FACES)	Job stress was associated with chronic health condition for all Filipino immigrants in the study regardless of length of US residency, but this relationship was strongest among new immigrants.
De Castro, Gee, & Takeuchi (2008)	Secondary data analysis of data from the Filipino American Community Epidemiological Study (FACES)	Job dissatisfaction was positively associated with psychological distress (B=0.32, p <.001) and physical health conditions, including hypertension (B=0.42, p<.001) while controlling for gender, age, education, income, and job category.
Appel, Huang, Ai, & Lin (2011)	Secondary data analysis from the National Latino Asian American study (n=273)	Filipino women (n=273) had a hypertension prevalence rate that was higher than Vietnamese women and second to the Chinese women. In addition, Filipino women in the study had the highest prevalence of being overweight and obesity using the BMI standards for Asians, and being a current (8.2%) or former smoke among Asian American women in the sample.
Dela Cruz & Galang (2008)	Focus group interviews (N=27)	Participants identify lifestyle factors, genetics and immigration-related stressors to contribute to the development of hypertension.
Wu, Hsieh, Wang, Lao, & Oakley (2011)	Cross-sectional survey of Asian American women in Michigan (N=388)	Filipino Americans have the highest rates of hypertension and hypercholesterolemia among other ethnic/racial groups, as well higher prevalence of being overweight and smoking among a sample of Chinese, Hmong, and Vietnamese American sample in Michigan.
Davis, Juarez, & Hodges (2013)	Secondary data analysis of data from members of a health insurance group in Hawaii between 2002-2009	Filipinos to have fastest rate of developing hypertension among Whites, Korean, Hawaiian, and Chinese Americans when compared to the White population.
Ancheta, Carlson, Battie, Borja-Hart, Cobb, & Ancheta (2014)	Cross-sectional study consisting of Asian American women in northeast Florida	At least 41% of Filipino women in the study have 4 or more cardiovascular risk factors that include hypertension, being overweight and obesity, hypercholesterolemia, waist circumference ≥35 inches, and low High Density Lipoprotein (HDL) compared to the 21% Cambodian, 13% Vietnamese, and 0% Chinese American women in the study.

Ursua et al. (2013)	Convenience sampling	56.9% (n=566) of the participants screened have hypertension. Older age, self-rated health status as either poor or fair, and self-report of high-cholesterol diagnosis or diabetes, and a family history of hypertension were significantly associated with hypertension awareness, while use of hypertensive medication was significantly associated with older age, having lived in the US for 15 or more years, and non-smoking status. Having health insurance coverage was the only significant factor associated with control of hypertension (OR = 2.1, 95% CI = 1.2-3.6) for this sample.
Ursua et al. (2013)	Convenience sampling	53% have hypertension, 39% have pre-hypertension, 75% are overweight or obese based on the World Health Organization guidelines specific for Asians. Older age, male gender, living in the US for over 5 years, a BMI greater than 23.0 kg/m^2, an elevated blood glucose reading, family history, and self-report of health as predictors of hypertension among the a sample of Filipinos in the sample.
Ursua et al. (2014)	Mixed-methods; feasibility pilot study (N=88) using convenience sampling	Significant decreases in systolic (p<0.001) and diastolic (p<0.01) blood pressure readings, and weight and BMI (p<0.001), and an increase in blood pressure control (p=.017) after implementation of a workshop based on the National Heart, Lung, and Blood Institute curriculum. There were also significant improvements in cardiovascular knowledge, weight management, diet, self-efficacy, and dietary behaviors regarding salt and sodium, and fat and cholesterol intake.
Zhao, Jose, Pu, Chung, Ancheta, Fortmann, & Panalappian (2014)	Secondary data analysis of data base of an ambulatory care setting in Northern California	Filipino men (59.9%) and women (53.2%) had a higher prevalence rate of hypertension than Non-Hispanic White men (46%) and women (39.6%), Mexican men (54.1%) and women (46.5%) and Non-Hispanic Black men.

Prevalence

Some of the early studies that relate to hypertension among Filipino immigrants were conducted in 1980's and 1990's and used existing databases that had Filipino immigrants as an Asian American subgroup. Stavig, Igra, and Leonard (1984) conducted the earliest descriptive studies on hypertension among Filipino immigrants living in California in the 1980s. The results of these studies revealed that Filipino immigrants have the highest prevalence of hypertension compared to other Asian American subgroups and in some cases, prevalence approaches or exceeds the Blacks in some specific age and gender categories (Stavig et al., 1984; Stavig et al., 1986). Interestingly, results of another study revealed a discrepancy between the high prevalence of hypertension and a low death rate related to hypertension-related diseases among Filipino immigrants that the authors attributed to a possible misclassification of Filipino immigrants as other ethnic/racial groups on the California death certificates (Stavig et al., 1986). The results of the two studies conducted in the 1990's continued to show the increased risk of hypertension among Filipino immigrants when compared with Chinese, Japanese, and other Asian American subgroups (Klatsky & Armstrong, 1991; Klatsky et al., 1996).

This pattern of disproportionately high prevalence of hypertension among Filipino immigrants was also evident in studies published between 2000-2010. In a study that used secondary data from the National Health Interview Surveys (NHIS) between 2003 to 2005 showed that, among Asian Americans, Filipino immigrants were more likely to have hypertension (OR = 1.18, 95% CI = 1.02-1.44) when compared to Whites. The results of study that used data from the 2004-2006 NHIS also revealed that Filipino immigrants have the highest prevalence of hypertension among Asian Americans (Barnes, Adams, & Powell-Griner, 2008). A disproportionately higher incidence of hypertension among Filipino immigrants were also noted in the results of a study that compared Filipino and Whites' coronary risk factors and outcomes of percutaneous coronary or cardiac surgical intervention (Ryan et al., 2000).

The more recent studies published since 2010 continue to follow the same pattern of health inequity of hypertension among Filipino immigrants in the US. Results of two studies that specifically examined the cardiovascular health outcomes among the different Asian American women subgroups highlighted this health inequity among Filipino women. The results of a study by Ancheta et al. (2015) that examined the various cardiovascular risk factors among different Asian American subgroups revealed that at least 41% of Filipino women in the study have four or more cardiovascular risk factors that included hypertension, being overweight and obese, hypercholesterolemia, waist circumference >35 inches, and low high density lipoprotein (HDL) compared to the 21% Cambodian, 13% Vietnamese, and 0% Chinese American women in the study. In the other study by Appel, et al., (2011) that used data from the National Latino Asian American Study revealed that Filipino women had a hypertension prevalence rate that was higher than Vietnamese women and second to the Chinese women in the study.

The results of a study using a large sample from the data base of an ambulatory care setting in Northern California showed that, although Asian Americans as a group had

a lower prevalence rate of hypertension compared with Non-Hispanic Whites, Filipino immigrants had a higher prevalence rate of hypertension than Non-Hispanic Whites, Mexicans, and Non-Hispanic Black men (Zhao, 2015). This pattern of health inequity continues to be demonstrated in studies indicating that Filipino immigrants have the highest prevalence and the fastest rate of developing hypertension among several Asian American subgroups (Davis, Juarez, & Hodges, 2013; Wu, Hsieh, Wang, Yao, & Oakley, 2011). The results of these studies have consistently revealed overtime that this population possesses a disproportionately higher burden of hypertension compared with Whites and other Asian and Pacific Islander groups and in some cases, exceeds that of African Americans, with hypertension prevalence rates ranging from 15.7% to 79%. Although the results of these studies could not provide specific information if this prevalence is increasing or decreasing for this population, there is ample data to support that this health inequity endures and continues to pose as a major health threat among Filipino immigrants in the US. To better understand why this health disparity persists and to show the progression of hypertension is examined for this population, it is equally important to explore the factors that contribute to hypertension, and to identify those factors that might be unique to the Filipino immigrant population.

Factors Associated with Hypertension among Filipino Immigrants in the US

Some of the earliest studies conducted in the 1980s explored the factors associated with hypertension among Asian Americans, with Filipino immigrants as a subgroup (Stavig et al., 1984; Stavig et al., 1988). The results of these studies identified age, body mass index (BMI), alcohol intake, education, and indicators of support (such as having close friends and number of years having known best friend, frequency of dining out, and religious affiliation) to be associated with hypertension among Asian Americans. However, these results are inconclusive and do not provide specific information about Filipino immigrants owing to the descriptive nature of the studies and because they did not separate the different Asian American subgroups.

There was sparse literature noted between late 1990s and the later part of 2000s that explored the factors associated with hypertension among Filipino immigrants in the US. Two studies (De Castro, Gee, & Takeuchi, 2008a; De Castro, Gee, & Takeuchi, 2008b) used data from the Filipino American Community Epidemiological Study (FACES) to explore the associations of several socio-demographic and work-related variables on Filipino Americans' health-related outcomes that included hypertension as a variable. The first study (De Castro et al., 2008a) investigated the relationships among length of US residency, job stress, and chronic health condition. For this study, chronic health condition was a composite measure that represents a number of chronic illnesses including hypertension that the authors adapted from the Medical Outcomes Study. Results of the study revealed that job stress was associated with chronic health condition for all Filipino immigrants in the study regardless of length of US residency, but this relationship was strongest among new immigrants. Using the same outcome variable, chronic health disease, the results of the second study (De Castro et al., 2008b) described the relationship between job dissatisfaction, psychological, and physical health among Filipino immigrants. Job dissatisfaction was positively associated with psychological distress (β=0.32, p <.001) and physical health conditions (β=0.42, p<.001) while controlling for gender, age, education, income, and job category suggesting that job dissatisfaction has significant implications for over-all physical health and mental well-being.

Suboptimal anti-hypertensive medication adherence among Filipinos was identified in a study conducted in Hawaii among Japanese, Korean, Filipino, Chinese, part-Hawaiian, and White patients (Taira et al., 2007). Filipinos in the study were the least adherent (48.9%) among the group when compared to Whites (58.9%), Japanese (64.6%), Chinese (58.4%), Korean (53.4%), and part-Hawaiian (53.9%) patients. The factors associated with low adherence included younger age, higher morbidity, and history of heart disease. In addition, seeing a physician of the same ethnicity as the patient was not associated with anti-hypertensive medication adherence.

There was a noticeable increase in the number of studies specifically focusing on hypertension among Filipino immigrants published since 2010. Aside from determining the prevalence of hypertension specific for this population, these studies also explored the factors that were associated with hypertension. Three studies discussed the results of a National Institute of Health (NIH)-sponsored research project based in the Northeast US (Ursua, et al., 2013; Ursua, Aguilar, Wyatt, Katigbak et al., 2014; & Ursua, Aguilar, Wyatt, Tandon et al., 2014). One study (Ursua et al., 2013) explored the relationship between disease awareness, treatment, and control of hypertension among Filipino immigrants (n=994) living in New York and New Jersey. The study results revealed that 56.9% (n=566) of the participants screened have hypertension (defined as having been diagnosed by a health care provider, self-report of current use of a hypertensive medication, or had a mean SBP of > 140 mmHg or > 90 mmHg). Out of these participants who have hypertension, 72.1% (n=408) were aware of their hypertensive status, and 78.4% (n=320) of them are taking anti-hypertensive medication. Of those receiving medication, only 38.4% (n=123) had their blood pressure under control, defined as having a mean SBP of < 140 mmHg and/or DBP of < 90 mmHg. Logistic regression analyses revealed that older age, self-rated health status as either poor or fair, and

self-report of high-cholesterol diagnosis or diabetes, and a family history of hypertension were significantly associated with hypertension awareness. Use of hypertensive medication was significantly associated with older age, having lived in the US for 15 or more years, and non-smoking status. Having health insurance coverage was the only significant factor associated with optimal control of hypertension (OR = 2.1, 95% CI = 1.2-3.6) for this sample.

The results of the second study (Ursua et al., 2013), which used a larger sample size (n=1,028), identified older age, male gender, living in the US for over 5 years, a BMI greater than 23.0 kg/m2, an elevated blood glucose reading, family history, and self-report of health as predictors of hypertension among the study participants. Further, the results of this study revealed that 53% had hypertension, 39% had pre-hypertension, 75% were overweight or obese based on the World Health Organization (WHO) guidelines specific for Asians, and 55% of the sample are uninsured. Final logistic regression model revealed that age, gender, time in the US, BMI and glucose level, family of hypertension, self-rated health status, and physical activity significantly predicted hypertension status among the study participants.

The third study (n= 88) used a mixed-methods approach, and was the only study that tested an intervention, to assess the feasibility and effectiveness of the use of community health workers (CHWs) to improve the management of hypertension of Filipino immigrants in the New York and New Jersey (Ursua, Aguilar, Wyatt, Katigbak et al., 2014). The interventions included four 90-minute monthly workshops based on the National Heart, Lung, and Blood Institute curriculum delivered by trained CHWs, and follow up phone calls and in-person visits to assist participants access primary care services, ensure medication adherence and appointment keeping, social support and other health-related referrals. The results of the study revealed that there were significant decreases in systolic ($p<0.001$) and diastolic ($p<0.01$) blood pressure readings, and weight and BMI ($p<0.001$), and an increase in blood pressure control ($p=.017$) at baseline and at 4 months. There were also significant improvements in cardiovascular knowledge, weight management, diet, self-efficacy, and dietary behaviors regarding salt and sodium, and fat and cholesterol intake. In addition, the participants who were interviewed for the qualitative portion of the study positively responded to the use of CHWs who shared their culture, language, and life experiences, and helped them overcome issues that influence adherence and success to care; many participants felt empowered as a result of their participation in the program.

Only one qualitative study was found that specifically addressed hypertension among Filipino immigrants in the US. De la Cruz and Galang (2008) explored Filipino immigrants' illness beliefs, practices, and perceptions related to hypertension. Study participants (n=27) described the following factors to influence the development of hypertension and influence their ability to effectively manage this chronic illness: Filipino diet that is high in fat and salt, lack of physical activity, lifestyle factors such as smoking and use of alcohol, genetics, daily stress from multiple sources such as from work and family responsibilities, and perceived discrimination. The participants also described strategies how they managed hypertension, including the use of folk remedies and complementary modalities such as acupuncture and the roles of humor and laughter, praying and going to church, and family to manage their disease. Although study participants were aware of the importance of taking medications to manage hypertension, and the lifestyle modifications needed to manage it, they identified forgetfulness, lack of motivation, lack of access to medication, and side effects from medications, as reasons for not adhering to treatment.

Discussion

The purpose of this integrative literature review was to present an overview of hypertension among Filipino immigrants in the US and its implications for research, practice, and health policy. A significant finding of this review was the consistent high prevalence of hypertension among Filipinos when compared with other racial and ethnic groups, not just Asian Americans. This trend has been consistently documented from the earliest studies in the 1980s to the most recent studies on hypertension among Filipino immigrants in the US.

The findings of this integrative literature review also revealed the complex and multi-faceted, and at times, conflicting factors that are associated with hypertension for this population. These included socio-demographic, work- and immigration-related factors, self-care behaviors, presence of co-morbidities, and personal- and cultural-specific factors. The socio-demographic and immigration-related factors associated with hypertension in this group included older age, gender, family history, education, years of residency in the US, having health insurance, job stress, and job dissatisfaction. There were notable self-care behaviors identified in this review that influence awareness, management, and optimal control of hypertension among Filipino immigrants that include smoking status and level of physical activity. The presence of other co-morbidities such as obesity and increased BMI, and diabetes, and perceived psychological distress have also been found to be associated with hypertension for this population. These factors have similarly been identified in the literature to be associated with the diagnosis, and awareness, management, and optimal control of hypertension among US adults and older adults (Mozaffarian et al., 2015) and among minority groups and immigrants (Kurian & Cardarelli, 2007; Mensah, Mokdad, Ford, Greenlund, & Croft, 2005; Rodriguez & Ferdinand, 2015).

It is also important to highlight that although the majority of the factors found to be associated with hypertension for this population are consistent with those found with other racial and ethnic groups in the US (Ye, Rust, Baltrus, & Daniels (2009), there are culture-specific factors that warrant further investigation for this population. These factors include the length of US residency, influence of social support, work-related factors, and self-care behaviors.

The findings from this integrative review also highlighted some knowledge gaps that could explain why this health inequity continues to afflict this population. All the studies reviewed used cross-sectional designs, which could not determine causality of the variables of interest. Moreover, several studies used an existing database such as the FACES and NHIS, convenience sampling, aggregated Filipino immigrants with other Asian American subgroups, and clustered hypertension with other chronic diseases, all of which further limit generalizability of study findings. Many studies also relied on self-reports to operationalize the major variables in these studies, which impacts study results' validity and reliability.

In sum, the studies on hypertension among Filipino immigrants in the US have evolved from the early studies that aggregated Filipino immigrants with other Asian American subgroups to the most recent studies that specifically focused on hypertension among Filipinos immigrants, especially those studies conducted in the Northeast US. However, there is still lack of rigorous studies, including those that test evidence-based interventions shown to produce positive outcomes in managing hypertension.

Practice and Health Policy Recommendations

The consistently high prevalence of hypertension among Filipino immigrants has not been translated into significant responses. This health issue has not spurred health policy actions and responses that address this chronic illness for this population. For example, this information should generate concern within the Filipino community and/or affiliated interest groups and organizations that champion health equity at the local and national levels to initiate actions or intensify efforts to address this major health threat. Examples of these initiatives include efforts to increase awareness and screening, and support programs that empower Filipinos to adopt and maintain a heart healthy lifestyle (Palanappian et al., 2010). There is a need to make this information known, not just among Filipinos, but also to the wider community, including healthcare-related and scientific communities, and to policy makers. These stakeholders could support and advance health policies that could potentially impact practice to reverse this health inequity for this population.

Recommendations for Research

There is a need to conduct future research that utilize robust methodologies to adequately inform practice and health policy. It is imperative to improve our understanding of the role of culture and immigration-related factors that could influence treatment outcomes among Filipinos who have hypertension. There is also a need to conduct studies that specifically explore the roles of, and relationships among self-care, health literacy, and patient engagement on hypertension-related patient outcomes specific for this population. Enabling patients, including immigrants, to take an active role in managing their conditions could lead to improved health outcomes and potentially reduce racial and ethnic disparities in care (Cunningham, Hibbard, & Gibbons, 2011). Future studies also need to integrate a theoretical framework such as health behavior theories in future research related to hypertension to further strengthen and explain the interrelationships among variables that influence hypertension management and outcomes.

Findings of this review also challenge the model minority myth, an assumption that Asian Americans have better socio-economic and health outcomes when compared to other racial/ethnic groups. This stereotype, specifically the one that relates to Filipino immigrants' health status could hamper efforts to effectively identify and address many health inequities that plague the Filipino immigrant community.

There is preliminary evidence that use of CHWs to deliver culturally-tailored interventions could lead to positive treatment outcomes among Filipino immigrants who have hypertension. However, research is needed to further explore this promising initiative using rigorous methodologies to add to a growing body of knowledge on the effectiveness of community-based interventions in supporting effective self-care by increasing knowledge, self-efficacy, and patient engagement and activation in improving health-related outcomes (Barlow, Wright, Sheasby, Turner, & Hainsworth, 2002; Chodosh, et al., 2005; Hibbard & Greene, 2013; Lu et al., 2012; & Riegel et al., 2009).

To address these knowledge gaps would heed American Heart Association's (2011) call to improve understanding of the unique factors that influence cardiovascular health outcomes among the different Asian American subgroups. In addition, exploring these topics would also address the U. S. Department of Health and Human Services' (2011) *Action Plan to Reduce Racial and Ethnic Health Disparities* initiative to target patient-centered outcomes in diverse populations. Findings from these studies could be used to inform health policies that specifically target the unique needs of minority populations that include Filipino immigrants.

Summary

This literature review illustrates a significant health equity issue that remains, for the most part, invisible due to lack of robust research, incomplete understanding of the heteroge-

neity of the different Asian American subgroups, and lack of attention to the unique influence of culture on hypertension management for this population. The results of this integrative review revealed a consistent high prevalence of hypertension among Filipino immigrants in the US. In addition, this literature review found that there are varied and multi-faceted, and at times conflicting factors that are associated with this chronic illness among this population with regard to awareness, management and treatment, and control of hypertension. However, due to the cross-sectional nature of the studies reviewed and methodologies used, the relationships among these factors are not well defined, which highlighted significant knowledge gaps. Addressing these knowledge gaps could increase our understanding of this chronic illness as experienced by this population and lead to culturally-tailored interventions and health policies to reverse the current trend of this health inequity.

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JOURNAL OF NURSING PRACTICE APPLICATIONS & REVIEWS OF RESEARCH

Ethical Issues When Conducting Research in People with Cystic Fibrosis

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Abstract

Background: Health disparities related to survival and clinical outcomes have emerged for certain subgroups of people with cystic fibrosis (CF) as longevity increases in this population. CF research focused on subsets of the population that experience health disparities presents a unique set of challenging ethical issues to be addressed when designing and conducting clinical research.

Objectives: To explore the ethical issues associated with conducting research in the vulnerable population of people with CF who also experience health disparities and, to propose recommendations to address ethical issues.

Methods: A literature review was conducted using health-related databases and relevant keywords, and a total of 27 articles were reviewed. A narrative review was created and includes a synthesis of the literature related to the ethical considerations for conducting research in people with CF who experience health disparities.

Results: Three main themes around ethical issues in studying the subset of people with CF who experience health disparities emerged from the review of literature: ethics of the clinician-researcher role, informed consent considerations, and special considerations for coercion. Practical strategies for overcoming these ethical challenges were identified and include: tailoring the informed consent process, inclusion of patient and family advisors when designing consents, use of standardized payments, and distinction between both clinical care and research as well as the clinician and researcher roles.

Conclusions: Increasing lifespan of people with CF has elucidated health disparities that create complex ethical issues when conducting research in people with CF. The multi-dimensional ethical considerations for studying people with CF who experience socio-economic disparities present challenges, but also opportunities for open discussion with participants around informed consent, role duality, and the distinction between research and clinical care.

Keywords: cystic fibrosis, health disparities, ethical considerations, informed consent, clinician-researcher

Ethical Issues when Conducting Research in People with Cystic Fibrosis

Ethical issues are inherent to human subjects research. Certain groups of people are considered vulnerable, and require additional protections and ethical considerations (National Commission, 1979). According to the Belmont Report (National Commission, 1979), vulnerable groups include economically disadvantaged people, ethnic/racial minorities, people with chronic illness, institutionalized persons, children, and people with reduced mental capacity. It is well established that vulnerable populations require additional ethical oversight during human subjects research (Braken-Roche, Bell, Macdonald, & Racine, 2017). The purpose of this narrative review is to explore the ethical issues associated with conducting research in the vulnerable population of people with cystic fibrosis (CF) and propose recommendations to address these ethical considerations.

Cystic Fibrosis and Health Disparity

CF is a rare, genetic, frequently fatal disease that primarily affects the respiratory and gastrointestinal systems (Quon & Rowe, 2016). About 30,000 people in the United States (U.S.) and 70,000 worldwide have CF (Cystic Fibrosis Foundation Registry Report, 2015). CF is caused by a defect in the gene that codes for a protein called CF transmembrane conductance regulator (CFTR). The faulty CFTR protein causes electrolyte abnormalities that result in thick, sticky secretions from epithelial cells (Rowe, Miller, & Sorscher, 2005). While multiple organ systems are affected, the primary cause of death in patients with CF remains respiratory failure (Cystic Fibrosis Foundation Registry Report, 2015). Over the past two decades, life expectancy has dramatically increased in people with CF due to advances in research, clinical care, and drug development. In 1990, the median life expectancy for people with CF was 29 years of age, which rose to 42 years of age by 2015 in the U.S. (Cystic Fibrosis Foundation Registry Report, 2015). While longevity has increased for people with CF, health disparities have emerged for certain subgroups of people with CF. The cause of health disparities can be driven by "biological differences or social disparities" (Adler & Rehkopf, 2008, p. 237). While some biological differences may drive certain disparities in people with CF, the main health disparity in the CF population is related to socio-economic status (SES). As a research population, people with CF are already considered vulnerable by standards in the Belmont Report (National Commission, 1979) due to having a chronic, severe illness. Economic disadvantage combined with a chronic illness compounds the vulnerability of this population.

Low SES affects social determinants of health including education level, income, neighborhood, and access to health insurance and healthcare (Woolf & Braveman, 2011). People with CF who have low SES experience a disparity in life expectancy and access to life-saving care including lung transplant and certain prescription medications (Schechter, Shelton, Margolis, & Fitzsimmons, 2001; Quon et al., 2012). Insurance coverage in CF is one indicator of SES and largely influences access to optimal clinical care in the United States. A study by Quon et al. (2012) found that patients with CF who had Medicaid also had lower education level, lived in zip codes with low income levels, and were less likely to be listed for lung transplant. Another study related to SES and survival in children with CF found that children with CF who had Medicaid also had lower lung function, more frequent pulmonary exacerbations, and that their risk of death was four times higher than children with CF who did not use Medicaid (Schechter et al., 2001). A recent population-based cohort study by Stephenson et al. (2017) that examined the difference in life expectancy between the United States (U.S.) and Canadian CF populations found that Canadian people with CF have an average life expectancy of 50 years, while American people with CF live to be an average of 40 years of age. Further, the authors found an association between type of insurance and risk of death. People with CF in the U.S. who had private or commercial insurance coverage had an equal risk of death to those in Canada, whereas people with CF in the U.S. who had Medicare, Medicaid, or were uninsured had a higher risk of death than Canadian patients with CF (Stephenson et al., 2017). Research is needed to explore the socio-economic disparity observed in CF in the United States, and to propose interventions and policy changes that will provide an equal standard of care for all people with CF.

Methods

For this literature review, PubMed and SCOPUS databases were accessed, and the following keywords were used in the search strategy: ethical issues, cystic fibrosis, research ethics in cystic fibrosis, health disparities, economic disadvantage, ethics. Inclusion criteria were: Articles published between the years 2000-2017, English language, relevance to CF and ethics in research, and relevance to health disparities in research. Seminal articles were also included. Exclusion criteria were: No relevance to CF or chronic disease and ethics in research, dissertations, and sources not available as full-text. After careful review of the initial yield's abstracts and references, and removal of duplicates, a total of 27 articles were reviewed.

Discussion of Ethical Considerations in Cystic Fibrosis Research

Ethical issues addressed in all human subjects research as outlined in the Belmont Report include ensuring justice, beneficence, and respect for persons (National Commission, 1979). Research in groups with health disparities also produces a variety of ethical considerations that incorporate but extend beyond the basic principles listed in the Belmont Report (Knight, Roosa, & Umana-Taylor, 2008). Re-

searching vulnerable populations who are also affected by health disparities presents a multidimensional set of ethical considerations that require mindfulness on the part of the researcher. CF research focused on subsets of the population that experience health disparities presents a unique set of challenging ethical issues to be addressed when designing and conducting clinical research. Some of the issues specific to the CF population include: ethics around the clinician-researcher role, informed consent issues specific to people with cystic fibrosis and low SES, and potential for coercion in an economically disadvantaged population with a chronic, life-shortening illness.

Clinician-Researcher Role

A clinician-researcher is defined as someone who both provides direct clinical care and also carries out research in patients (Yanos & Ziedonis, 2006). The role of the clinician-researcher is becoming more common in CF as life expectancy increases, and as research for life-saving treatment advances. This dual role can be beneficial in studying chronically ill patients because it fosters an increased sense of trust between participant and researcher, and can also lead to clinically applicable research studies that will improve overall patient care and quality of life (Yanos & Ziedonis, 2006). A qualitative study conducted by Lowton (2005) in 31 adults with CF assessed the rationale for participating in research studies and found that trust in the clinician-researcher led to agreement to participate in the study. This study also found that the patient who did not trust the researcher or their medical provider did not consent to the study (Lowton, 2005).

While the clinician-researcher role has advantages, the duality of this position can create role confusion for both the patient and the researcher (Yanos & Ziedonis, 2006; Hay-Smith, Brown, Anderson, & Treharne, 2016). Role confusion can present an ethical dilemma for the clinician-researcher when clinical and research interests have competing and different demands (Yanos & Ziedonis, 2006). The clinician-researcher may begin to identify more in the role of a clinician during research which can steer focus from research to patient care, affect data collection and quality, affect adherence to research protocols, and generate confusion for participants who may be accustomed to seeing the researcher as their clinician, leading patients to seek clinical advice during research visits (Hay-smith et al., 2016). Authors also pointed out that this role confusion can be potentially harmful to patient-participants if it leads to manipulation that stems from power dynamics between the participant and the researcher, which could be amplified when the researcher is also the patient's clinician (Hay-smith et al., 2016).

Implications of the clinician-researcher role are especially important to consider in the CF population because patients with CF already have established relationships with their CF clinicians through quarterly visits with their clinical teams as recommended by the Cystic Fibrosis Foundation (CFF) (Cystic Fibrosis Clinical Care Guidelines, 1997). These issues require special attention in research because clinician-researchers provide direct care to patients who are potential participants in research studies. Extra measures must be taken to counter the pitfalls associated with being a clinician-researcher so that the full benefits of this role can be realized. Use of reflective journaling to identify personal biases can promote role integration, as well as a disclosure strategy with an open discussion of the clinician-researcher role during the informed consent process to minimize role confusion and undue influence (Yanos & Zeidonis, 2006).

Informed Consent

People with CF become medicalized at an early age due to living with a chronic illness that requires frequent clinic visits with a multidisciplinary clinical care team. Many people with CF have participated in CF research for most of their lives (Christofides, Dobson, Solomon, Waters, & O'Doherty, 2016). A recent study examined reasons that people with CF participate in research studies and discovered that a main motivation was a desire to help (Christofides et al., 2017). A concerning finding in this study is that some patients with CF identified that they expected better clinical care if they agreed to participate in research studies. This presents an ethical issue in consenting people with CF because care must be taken to emphasize that declining participation will not lead to worse clinical care (Christofides et al., 2017). An extension of this concept is therapeutic misconception, defined as an individual's lack of understanding of the difference between clinical care and research. Therapeutic misconception can compromise an individual's ability to make an informed decision about participating in research, due to confusion over how research participation and clinical care differ (Henderson et al., 2007). Therapeutic misconception is an important consideration in obtaining informed consent from people with CF who may already have an expectation of the quality of clinical care being dependent on research study participation.

Rather than making an active decision on whether to participate, the tendency of people with CF to automatically defer to saying yes to research is another ethical issue with informed consent in this population. Christofides et al. (2016) conducted a qualitative study of 19 children with CF to explore decision-making about participating in research. The authors found that children with CF tend to approach research participation through a heuristic process with a default of saying "yes" to participation (Christofides et al., 2016). A predisposition to participate in research combined with the perception that clinical care is significantly affected by research studies may reduce the voluntariness of participating in CF research, and requires extra attention

to the informed consent process. When obtaining assent and consent, special efforts should be made to emphasize elements of studies that have been identified as important in the decision-making process for children with CF, including concerns over study procedures, perception of risk, personal relevance of the study, and logistical challenges (Christofides et al., 2016). Additionally, the separation between research and clinical care should be highlighted during the consent process to assure patients that the standard of their clinical care will not lessen if they decline to participate in the research study. If at all possible, the recruitment of CF patients into research studies should be conducted by a research coordinator or research assistant who is not part of the clinical care team to mitigate concerns related to therapeutic misconception.

Coercion

The tendency of patients with CF to automatically answer yes to participating in research makes this population more vulnerable to coercion and undue influence, which is further compounded in the economically disadvantaged subset of the CF population. Economically disadvantaged people are more susceptible to coercion to participate in research. Some researchers argue that providing monetary payment for research participation is unethical because it exerts undue influence, especially in a financially needy population (Wong & Bernstein, 2011). Others suggest that while money for participation may compromise informed consent and cause undue influence, offering appropriate non-excessive compensation for time spent on a research study is a strategy to combat coercion (Grady, 2001). Given that children and economic disadvantaged people with CF are especially susceptible to undue influence and coercion, financial incentives must be closely monitored and guidelines for study compensation must be closely followed to minimize the potential for coercion and preserve voluntariness in this especially vulnerable group of people with CF. Institutional review boards (IRBs) provide guidance and oversight to ensure that research studies provide appropriate participate compensation and avoid the potential for coercion.

Implications for Research and Practice

Research in persons with CF who experience health disparities presents a specific set of ethical challenges beyond research in chronic disease. Given that people with CF have extensive exposure to research in conjunction with clinical care, special efforts must be made to separate the clinician and the researcher role, especially when CF care team providers are conducting research in the same patient population that they treat in a clinical setting. CF clinician-researchers should employ techniques of reflective journaling throughout the research process and provide disclosure during the consent process to minimize role confusion and separate clinical care from research. The tendency to agree to research studies and the perceived benefit in clinical care associated with research leaves a higher potential for coercion and undue influence in an economically disadvantaged subset of this chronically ill population. Researchers working with this population should design consent forms and the consent process with this evidence in mind, particularly with respect to children and economically disadvantaged people with CF. Time should be devoted to openly discussing the distinction between research studies and clinical care during the consent process in a population with a long history of cross-over between these two realms. Additionally, researchers should use standard payments and incentives when working with this group to further minimize the potential for coercion due to low SES. Use of a patient and/or family advisory partner in an outside research review panel may also be a useful strategy when designing informed consent forms and processes to avoid coercion in subsets of people with CF who experience health disparities.

Conclusion

As longevity of people with CF continues to increase, it becomes more crucial to examine disparities in survival and clinical outcomes that have emerged in this chronically ill population. Research in people with CF and low SES is essential to ensure that all people with CF receive equal care and opportunity for the best quality of life. While studying this group brings about a unique set of ethical challenges, strategies exist to overcome these hurdles so that meaningful research can be conducted to protect this vulnerable population.

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JOURNAL OF NURSING PRACTICE APPLICATIONS & REVIEWS OF RESEARCH

The Nurse's Role in Addressing Barriers to Cancer Screening of African Americans: An Integrative Literature Review

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Abstract

Background: While investigations into racial cancer disparities have been conducted since cancer screening practices have begun, there are few studies that address barriers to cancer screening behaviors in African Americans particularly within the perspective of nursing. This concept is of particular concern because nurses have an opportunity and responsibility to impact the overall morbidity and mortality rates of cancers.

Objective: The purposes of this integrative literature review were to identify various barriers to early cancer detection and screening behaviors among African Americans and to evaluate the nursing interventions in overcoming these barriers.

Method: Research articles were identified using the Cumulative Index to Nursing and Allied Health Literature (CINAHL), ProQuest Nursing & Allied Health Source (ProQuest), PubMed, and PsychINFO, published between 2000 and 2016. After inclusion and exclusion criteria were applied, fourteen research studies were used in the data analysis.

Results: Fourteen studies focused on breast cancer and prostate cancer screening in African Americans. These studies examined barriers to early cancer detection in this population while also evaluating nursing interventions that addressed obstacles impeding cancer screening. Continuing nurse education, the use of specially selected focus groups and decision aids, patient education, shared decision making care delivery model, and involvement in multidisciplinary teams have been found to be effective nursing interventions to address barriers to cancer screening in African Americans.

Conclusion: The integrative literature review revealed the nurse's role in improving cancer screening of African Americans through a wide range of nursing interventions. By targeting this hig-risk population in oncology, nurses are actively contributing to the continued decline in morbidity and mortality rates associated with cancer screening disparities among American Americans. Insurance coverage and other influential social determinants of health must be addressed during the development and implementation of evidence-based nursing interventions for cancer screening in African Americans.

Keywords: African American, Cancer Screening, Risk Factors, Nursing Interventions, Insurance Coverage

Background

The most recent collaborative annual report from the Centers for Disease Control and Prevention (CDC), the American Cancer Society (ACS), the North American Association of Central Cancer Registries (NAACCR), and the National Cancer Institute (NCI) revealed African Americans (AA) have higher incidences and death rates of all cancers as compared to other races and ethnicities (Ryerson et al., 2016). Cancer diagnoses with distant metastases are higher among AA across all types of cancer and cancer death rate is 15% higher in AA than Caucasians (Siegel, Miller, & Jemal, 2017). A recent investigation found that the cancer mortality disadvantage experienced by AA when compared to their Caucasian equivalents increased as cancers became more amenable to medical interventions. These amenable cancers are associated with the extent of available effective detection and treatment services allowing better control over the disease (Tehranifar et al., 2016). Not identifying cancer at an early stage can lead to advanced cancer stage, possibly metastasis, and unfortunate death that could have possibly been avoided.

Cancer screening behaviors are imperative to the health and outcome of all people across the globe. According to the National Institute of Health, cancer screening is the most effective method to identify signs of cancer while the disease is in the early process of generation (National Cancer Institute, 2017). If abnormal cells are recognized prior to presentation of cancer symptoms, the cancer can be more treatable and potentially cured. Examples of screenings include: a physical examination such as a manual breast examination, patient history collection to extract information for the development of a genogram, laboratory tests such as pap smears, imaging procedures such as mammograms and computed topography, and genetic testing such has BRCA1/BRCA2 mutation testing and prostate-specific antigen (PSA) testing (National Cancer Institute, 2017). Typically, screening tests are equally effective and the overall performance of screening mechanisms in terms of sensitivity, specificity and positive predictive value are consistent across ethnicities (Gill & Yankaskas, 2004). If employed equally across the American population, the screening of cancer would be effective for identifying evidence of cancer at the earliest stage possible and reduce mortality across the board.

There must be underlying reasons to explain why African Americans are exhibiting such disparity in preventable cancers as they are being diagnosed at later stages of cancer progression, evidently leading to greater mortality rates and complications. In the field of breast cancer detection, Young, Schwartz, and Booza (2011) reported that there are "clinical care barriers that reduced the likelihood of screening were related to patient/physician communication, education, and referral, reports that the patient could not talk to the physician, the physician did not listen, explain the importance of a mammogram, talk about breast cancer, or make a referral for mammography" (p. 267). Nurses can affect change by improving screening practices, teaching patients about risks for and signs of cancers, and addressing African American's beliefs in a culturally sensitive manner (Ackerson & Gretebeck, 2007). This concept is of particular concern for nurses because nursing personnel has an opportunity and responsibility to impact the overall incidence and mortality of cancers.

With the addition of social determinants of health (e.g., income, education, gender, ethnicities, employment status, etc.) as a topic and objective for addressing health disparities in the Healthy People 2020 initiative, it is evident that special attention to health disparities and a drive to close these health gaps are among top priorities for health policy makers (U.S. Department of Health and Human Services, 2014). In the pursuit of comprehensively addressing the goal of reducing the health disparity related to cancer patient outcomes seen among AA, there are various needs to address. These include diagnosing detectable cancers at an earlier stage, efforts to promote equal distribution of public health, medical, and nursing interventions across population subgroups, progressing medical advances, and diagnosing cancers more efficiently (Tehranifar et al., 2016).

Problem Statement

While investigations into racial cancer disparities have been conducted since cancer screening practices have begun, there are few studies that have investigated the nurse's role in overcoming barriers to cancer screening in AA.

Statement of Purpose

The purposes of this literature review were to (a) identify various barriers to early cancer detection and screening behaviors among AA, and to (b) evaluate the nursing interventions and the nurse's role in combating these barriers to cancer screening and early cancer detection in AA population. Simultaneous investigation into the barriers to cancer screening and nursing interventions can define the nursing field's contribution to curb disparities in cancer screening adherence and early cancer detection. Additionally, future research directions on these topics are discussed.

Research Questions

This integrative review addressed the following research questions:

1. What are the barriers that are preventing AA from effectively employing cancer screening behaviors leading to earlier stages of diagnosis?
2. How can nurses combat these obstacles within their scope of practice, thereby reducing disparity in stage of cancer at diagnosis and cancer death rate in AA population?

Conceptual Framework

Conducting this integrative literature review through the combined perspective of a nursing theory and health models ensured a strong framework for achieving an enriched and relevant result. Hochbaum's Health Belief Model (HBM) and Madeleine Leininger's Cultural Care Diversity and Universality Theory (CCDUT) were both acknowledged when reviewing the available literature in the areas of barriers to cancer screening and the nurse's role, respectively.

Hochbaum's HBM addressed the personal barriers to screening present in this population such that people's own notions about potential health problems, perceived benefits of action and barriers to action, and self-efficacy can explain lack of engagement in health-promoting behavior (Hochbaum, 1958). This model has been employed historically to measure the behaviors and beliefs related to cancer screening, and health motivation has been used alongside the originally defined concepts of the model with markedly significant predictive ability (Zare et al., 2016).

Madeleine Leininger's CCDUT was developed to fill the longstanding need for nurses to better understand their patients and provide therapeutic care to people of diverse cultures. It suggests health care providers recognize and appreciate how culture can play a role in healing and medical treatment. The theory is broken down into separate modes of cultural care theory; cultural care preservation and maintenance, cultural care accommodation and negotiations, and cultural care repatterning and restructuring (Leininger, 2006). Culture, meaning the shared and learned beliefs, values, norms and worldview specific to a group of people influencing their ways of living, was easily applied to this literature review given that the population of interest is the AA (Petiprin, 2015).

Methods

Research Design

This research study employed an integrative literature review to simultaneously evaluate the current available research outlining the barriers to cancer screening and the nursing interventions to overcome these barriers. Whittemore and Knafl's (2005) modified framework for conducting an integrative literature review was utilized throughout the conduct of this study. The following steps were followed: specifying the purpose of the review, systematic literature search process, data evaluation, data synthesis and analysis, and presentation of results (Whittemore & Knafl, 2005).

Literature Search Strategy

As suggested by Whittemore and Knafl's (2005) methodology, well-defined literature search methods are essential to reduce errors such as incomplete and potentially biased search results. The following databases were used to perform the literature collection: The Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, and PsychINFO. The combination of keywords used for searching were "cancer screening AND African American* AND nurse," yielded 52, 99, and 18 articles, respectively.

Inclusion criteria for this literature review required that all original research articles be in the English language only, have been published between year 2000 and year 2016, must have a nursing role or intervention component included, report barriers to cancer screening, and must have data generated from the African American population. These criteria were applied and further reduced the yield for CINAHL from 52 to 25, for PubMed from 99 to 37, and for PsychINFO from 18 to 11 (Table 1). The abstracts were reviewed as well as the manuscript to only include those that met the inclusion criteria. Afterwards, duplicate articles across the four databases were removed.

Given that the second objective of this literature review focused on the nurse's role in overcoming cancer screening barriers for AA, the articles were assessed for evidence-based practice interventions. The following exclusion criteria were applied during the search process: articles that did not address the patient population directly, did not evaluate a nursing intervention against a comparison intervention or control, or did not evaluate the patient population's cancer screening outcome. These preset criteria for selecting studies for inclusion in the review, along with stringent quality assessment, allowed for reduction of bias leading to more credible results (Melnyk & Fineout-Overholt, 2011). Fourteen studies met all search criteria: five studies from CINAHL, two studies from PsychINFO, and seven studies from the PubMed database (Table 1).

Table 1. *Tabular Representation of the Literature Search Employed in this Study*

Literature Search Process	CINAHL	PsychINFO	PubMed
Number of articles yielded with the use of keywords	52	18	99
Number of articles that met the inclusion criteria	25	11	37
Number of articles after duplicates were removed	21	12	20
Number of studies after exclusion criteria were applied	5	2	7
Final Number of Original Research Articles Included in this Review = 14			

Data Analysis and Synthesis

The following steps were undertaken during data analysis and synthesis: first, data extraction from primary sources were put in order, coded, categorized and summarized. Secondly, data reduction was performed. Thirdly, data were organized for display. Finally, data comparison was performed to identify common themes across studies (Whittemore & Knafl, 2005). Categories that were extracted included the intrinsic and extrinsic barriers associated with AA which addressed the first research question. With respect to the second research question, data was extracted pertaining to the various nursing interventions and actions that could overcome these various barriers.

For better viewing and ease in organizing the data, a display matrix was constructed (Table 2). This enabled better organization of the coded data from each study by category and allowed for an easier comparison. Similar variables were grouped based on barrier type within the matrix. As indicated by Conn et al. (2003), "conclusions about the efficacy of nursing interventions should not be based on inadequate reviews of existing evidence" (p.181); therefore, evaluating and grouping the nursing interventions was of utmost importance. In doing so, it was possible to build a logical chain of evidence for data synthesis. To achieve this, the rating system for the hierarchy of evidence for intervention research developed by Melnyk and Fineout-Overholt (2011) was used to systematically rate the level of evidence derived from the articles included in this literature review.

Results

Fourteen original research articles that met the inclusion and exclusion criteria were included in the final analysis. All studies focused on breast cancer and prostate cancer screening and are displayed in Table 2.

Table 2. *Data matrix displaying the fourteen articles used for analysis.*

Authors	Cancer Type	Hierarchy of Evidence	Study Purpose	Research Design	Barriers Mentioned	Intervention	Statistical Analyses Used	Findings	Nursing Implications
Coleman et al. (2003b)	Breast	Level II	To test a multimethod approach designed for rural healthcare providers to increase breast cancer screening among low-income, AA, and older women	Quantitative Experimental Pre-test and Post-test Control Group Design: Random assignment	Personal: age, income, lack of education, perceived ineffectiveness, perceived reduced risk, confusion about guidelines Structural: lack of private health insurance, rural residence lack of providers Clinical: scheduling problems, healthcare providers not being aware of current guidelines	The use of standardized patients to observe and record healthcare professionals' performance during cancer screening. The intervention variables were posters and pamphlets raising best practice breast cancer screening awareness among an intervention group of nurse practitioners in the Arkansas Delta, This was followed by direct feedback and newsletters to inform healthcare providers about screening methods	Paired t test, of pre-test/post-test matched scores for the performance examination	The healthcare providers had statistically significant improvement in their demonstration of breast cancer screening practices after participating in the intervention ($t = 4.3$, $p < 0.0001$, power = 0.99). The nurses performed significantly better than the physicians on the actual CBE during the post-test (nurses X = 12.0 [SD = 13.2] versus (physicians X = 8.7 [SD = 11.9], $p = 0.014$).	Successful approaches in rural settings may include the use of standardized patients, prompts such as posters and pocket cards that serve as reminders for patients and healthcare providers, and newsletters that provide useful information in an easy-to-read format. Physicians and nurses play a powerful role in motivating women to have mammograms and clinical breast examinations and to practice BSE.
Coleman et al. (2003a)	Breast	Level II	To test a multimethod approach to increase breast cancer screening in primary care clinics in the Mississippi River Delta region of eastern Arkansas, an extremely rural area with a high concentration of AAs, a high percentage of elderly citizens, and a low per-capita income	Multiphase: Quantitative Experimental Pre-test and Post-test Control Group Design	Personal: low literacy levels, fatalistic attitudes, lack of awareness, lack of knowledge, lack of education, income levels Structural: lack of insurance and preventive care	A brief evaluation of knowledge of and intent to follow breast cancer screening guidelines and a performance check of actual BSE techniques, to 258 women seen in their clinics. The performance test included an evaluation of the components of BSE performance. The BSE techniques were scored using the same checklist the nurses used in a recent breast health training workshop. The researchers received additional funding in 1997 to develop and evaluate appropriate lay literature for AA women with low literacy skills	Pearson' s correlation, Chi-square, ANOVA	Results showed that the women learned from both drawing and photographic versions of the intervention. The group of women who had reviewed the materials followed by a post-test had a greater knowledge of and intention to follow guidelines for CBE and BSE. The women who reviewed the materials had higher scores on the performance of BSE techniques than the women who had not reviewed the materials. A subset analysis was done with only the AAs who were 40 or older; the statistically significant results remained true ($p = 0.001$)	Easy to understand graphic materials were effective in increasing women's knowledge of and intent to follow breast cancer screening guidelines and in teaching them BSE techniques
Fowler et al. (2005)	Breast	Level III	To describe all phases of a collaborative breast health intervention delivered by paraprofessionals or CHAs for targeting AA women designed to increase mammography screening	Quantitative-Pre-Experimental One group Pre-test and Post-test Design	Personal: Lower SES, education and income, literacy issues, susceptibility beliefs, beliefs of decreased personal control over health decision making, fears and fatalistic beliefs, cultural and religious beliefs Structural: lack of health care coverage, costs, location, convenience of services Clinical: Prior negative experiences with healthcare professionals	APRN training of CHAs to use aggressive recruitment strategies including initial contact and recruitment, educational content, appointment reminders, mammography screening, follow up contact, and program evaluation to increase mammography screening and knowledge of breast health and mammography screening in AA women aged 50 and older. During follow up contact to schedule screening an 18-item pre-test was administered prior to an educational intervention. After receiving mammography from the x-ray technician collaborators, the 18-item post-test was administered	Paired *t* test	The women were particularly knowledgeable after the education about familial history, breast anatomy and abnormal symptoms, recommendations for breast health and mammography screening, and routine screening procedures ($p < 0.05$). The majority of women (90%) reported that they learned valuable information about breast health and would obtain future breast screenings when reminded by their healthcare professionals	The impact of family issues, housing instability, job demands, and conflicting information provided by significant others must be considered in the intervention Incorporate evaluation strategies at baseline and periodically throughout the intervention to provide more comprehensive data and, therefore, enhance the credibility of findings. Collaborate with other healthcare personnel such as certified x-ray technicians and influential people in the community

Authors	Cancer Type	Hierarchy of Evidence	Study Purpose	Research Design	Barriers Mentioned	Intervention	Statistical Analyses Used	Findings	Nursing Implications
Grindel et al. (2004)	Breast	Level II	To determine the effect of three types of breast cancer screening messages (positive/upbeat, neutral/cognitive, and negative/fear) on knowledge, attitudes, perceived risk for breast cancer, and mammography screening of AA women	Quantitative-Quasi-Experimental Pre-test and Repeated Measures Post-test Design with Three Comparison Treatments	Personal: Lack of knowledge, negative attitudes, income, lack of education Structural: lack of insurance coverage	A 60-minute breast health intervention session that included participants completing the demographic and breast screening history and knowledge, attitudes, and perceived risk pre-test; watched one of the three videos; and filled out the post-test knowledge and attitude and items about their perceptions of the video.	Descriptive analyses including means, standard deviations, percentages, ANOVA, chi-square test, and repeated measures ANOVA	Scores for the sample were slightly higher on post-test (—X = 6.81, SD = 1.76) than they were on pre-test (—X = 6.17, SD = 1.60). No significant differences were found among video groups on knowledge of breast cancer over the three measurement periods (F[2, 323] = 0.955, p = 0.386). More women received a mammogram 12 months post intervention than prior to the intervention; however, knowledge scores at the one-year measurement dropped significantly for all groups	Interventions need to be developed in the context of cultural norms and educational levels of the target population. Breast cancer screening messages must reach women who do not adhere to ACS guidelines. These women are at greater risk for a diagnosis of breast cancer at more advanced disease stages when prognosis is much poorer.
Jerome-D'Emilia, Merwin, and Stern (2010)	Breast	Level II	To examine the feasibility of using distance education to disseminate knowledge about timely and appropriate mammography screening to rural nurses, using patient outcome data to evaluate the effectiveness of this intervention	Quantitative Experimental Pre-test and Post Test Control Group Design	Personal: SES, lack of education Structural: Lack of adequate health insurance, greater distance to medical facilities, less accessibility of services Clinical: lack of physician recommendation in rural communities, lack of continuing education	The study used web-based and videoconferencing distance learning methods to introduce and reinforce nurses' knowledge about breast cancer screening and diagnosis. The curriculum included a review of screening guidelines and a discussion of reasons why women choose not to undergo mammography, along with suggestions on how to encourage appropriate compliance with guidelines	An econometric model of analysis and correlated probit models.	There was a decline in referrals and mammography screening, but the intervention group centers showed a smaller decline after the educational intervention than did the control group. The effect of the intervention on the value of obtaining a referral and an examination was statistically significant at the 5% level, which implies large effects on behavior. A positive effect on post intervention rates in the intervention group centers.	Future studies should follow from nurse-identified educational needs and recruit rural nurses more directly. Nurses, especially rural nurses, should be proactive about continuing breast health education
Kelley, M.A. (2004)	Breast	Level II	To provide a culturally specific intervention program for AA women to alter selected behavioral risk factors, psychosocial responses, and breast self-care variables.	Quantitative Experimental Pre-test and Post-test Control Group Design	Personal: lack of participation in primary and secondary prevention, lack of knowledge about BSE, CBE, and the need for frequent mammography screening, lack of knowledge regarding cancer causing risk factors Clinical: lack of culturally sensitive interventions	A culturally appropriate breast health educational intervention program on breast cancer risk factors, benefits of early detection with BSE, CBE, and mammography, exercise and diet benefits, decreasing stress, and coping effectively. The highlights of the intervention groups included silicone breast model demonstrations and return demonstration of BSEs and lay AA women breast cancer survivors telling their experiences of diagnosis and recovery from breast cancer	Descriptive statistics, correlation coefficients, and repeated measures ANOVA	Although there was no statistical evidence that the intervention has an effect on psychosocial response and perceived barriers to BSE or CBE, proficiency in self-exams was affected. The intervention was effective in changing behavior in the intervention group and the intervention increased proficiency of BSE. However, exposure to the questionnaires was postulated to have increased knowledge of breast cancer enough to cause more anxiety and CBE	A culturally appropriate breast health educational intervention program for AA women, 20 to 40 years of age, is effective in causing changes in proficiency of BSE when compared to women who did not participate in the program
Mason et al. (2013)	Breast	Level VI	To present a process and outcome evaluation of The Avon Foundation Community Patient Navigation Program	Descriptive Study Design	Personal: Income Clinical: Difficulty with obtaining clinical follow-up services from an abnormal finding	The Avon Foundation Community Education and Outreach Initiative (CEOI) is a community-based PN program attempting to address breast cancer related disparities by delivering community education to underserved women and helping individuals overcome financial barriers to mammography screening through the use of trained, lay PNs working closely with an NP, who is federally funded through the Georgia Cancer Screening Program	Descriptive statistics were performed in addition to logistic regression analysis	Sixty-four participants were eligible for a mammogram through the Georgia Cancer Screening Program, at the collaborating health facility (21%). Of these, 70% were screening and 30% were diagnostic mammograms. Excluding those younger than 40 years, those who reported symptoms/abnormalities were 2.01 times more likely to have a mammogram than those who were asymptomatic (p = .05). This study has demonstrated the potential to make a difference within a collaborating health facility through the CEOI in bridging the gap between a community that is underserved and a health care system	The results showed that using trained lay community advisors may be a useful way to encourage screening mammography among underserved women. Nurses can work alongside PN volunteers to evaluate mammography interest forms and determine eligibility for a free or low-cost mammogram
Meade et al. (2003)	Prostate	Level VI	To gain a better understanding of men's everyday concerns as part of formative research for creating relevant prostate cancer screening education; to describe methods and processes used to conduct community-based focus groups	Qualitative Focus Groups Formative Research Design	Personal: fear, lack of knowledge about prostate cancer, fear of a screening test's results Structural: racism and racial inequalities Clinical: a lack of trust in the healthcare system, mostly in physicians	The discussion guide was comprised of a series of questions that moved from general day-to-day topics to health and specifically cancer and then to prostate cancer. Pre-testing iterations then were conducted among community members to ensure that the authors were working with models and priorities shared by the intended audience	Descriptive statistics was only used for demographics Thematic analysis for qualitative data	The preferred health spokespeople included cancer survivors, doctors as experts who were credible and compassionate, and community people with whom they could identify. Emergent themes from the focus groups were used to develop the content of the prostate cancer toolboxes	Qualitative methods can be used by nurses to add richness, depth, and clarity to the understanding of everyday priorities among ethnic minority community members. Educational interventions designed to encourage health-promoting behaviors for prostate cancer screening can be linked to their own general priorities. Ffocus group methodology can help nurses more effectively reach racial and ethnic minority populations with important prostate cancer information and ultimately contribute to reducing racial and ethnic disparities in health care

Authors	Cancer Type	Hierarchy of Evidence	Study Purpose	Research Design	Barriers Mentioned	Intervention	Statistical Analyses Used	Findings	Nursing Implications
Sandiford and D'Errico (2016)	Prostate	Level III	To describe the development and implementation of a prostate cancer screening intervention and risk assessment decision tool to increase prostate cancer knowledge and to facilitate shared decision making for AA men in two churches in different suburban Southern California communities	Quantitative-Pre-Experimental One group Pre-test and Post-test Design	Personal: awareness of personal risks, having the information needed to initiate a discussion with a healthcare provider, decisional conflict, and intention to participate in shared decision making Clinical: healthcare providers overlooking shared decision making	A two-page PCSDA for use with an educational presentation for AA men in a faith-based setting was created. The PCSDA was designed to reflect national screening guidelines and was assessed for readability at a grade of 7.5 on the Flesch-Kincaid readability index. A PowerPoint presentation was presented to AA men in the study by a radiation oncology nurse in a group setting. A 21-item pre-test/post-test questionnaire was created by the first author	Descriptive statistics	An 8% increase in knowledge was calculated when comparing pre-test/post-test responses, with 69% correct responses pre-test and 77% correct responses post-test. Increases were observed in awareness of personal risks, having the information needed to initiate a discussion with a healthcare provider, and intention to participate in shared decision making within six months	Nurses can play a meaningful role in collaborating with community lay leaders to develop and implement effective health promotion interventions for AA. Oncology nurses must be knowledgeable about the shift in screening guidelines from routine screening to shared decision making and be prepared to educate the community accordingly
Shackelford, Weyhenmeyer, and Mabus (2014)	Breast	Level VI	To examine how FCNs fostered early breast cancer detection for those at risk in rural and AA populations throughout nine counties in Midwestern Illinois to decrease breast cancer disparities	Quantitative-Pre-Experimental One group Pre-test and Post-test Design.	Personal: The fear of finding cancer, along with the perceived side effects, not understanding the value of early detection, low income, cost, perceived side effects Structural: Lack of transportation	Education sessions consisted of educating participants on how to take an active role in their health. The sessions began with a presentation of statistics and facts regarding breast cancer in at-risk populations, which was followed by a discussion of early detection through clinical examinations, mammography, and BSEs	Descriptive statistics	Although responses to categories vary for questions regarding their past BSEs and use of mammograms, 50% of participants said they planned to begin performing monthly BSEs after not previously completing them in the past.	Networking within faith communities, connecting with complementary activities, and offering refreshments and gift items that reinforced learning were creative strategies utilized to reach women for breast cancer education. Barriers to participation were alleviated by flexible educational programming.
Smith, M.A., Conway-Phillips, R., Fracois-Blue, T. (2015)	Breast	Level III	The two main purpose of this article is to: (a) identify and describe breast cancer disparities in Chicago, (b) describe the evidence-based intervention to address breast cancer disparities,	Quantitative-Pre-Experimental One group Pre-test and Post-test Design	Personal: lack of knowledge regarding breast cancer recommendations and guidelines, inequalities in health status, environment, socioeconomic status, cultural beliefs Structural: access and use of care	A protocol was developed using Sisters Saving Lives-trained AA breast cancer survivors to educate other AA women without a breast cancer diagnosis on the importance of self-care for breast health, using Self Efficacy Theory as a guide for implementation	McNemar–Bowker test	Because of the small sample size, statistical significance was not achieved; however, improvement was seen on the post-test scores after program completion. To date, seven programs have been conducted in the South Side Chicago communities and have reached more than 1,500 women.	Training AA breast cancer survivors to deliver breast health education to underserved populations can help increase awareness about breast cancer and screening with SBE, CBE, and mammograms
Weinrich et al. (2007)	Prostate	Level II	To report knowledge of prostate cancer screening among men randomized to an Enhanced decision aid versus a Usual Care decision aid	Quantitative Quasi-Experimental Pre-test and Post-test Design with Two Comparison Treatments: Using a Solomon Four Research Design	Personal: Education level, family income, lack of previous prostate cancer screening, anxiety of the unknown, lack of previous screening	A trained nurse reviewed the assigned decision aid with the men in a group setting. After this education, each man met individually with a physician or NP for a question and answer session related to prostate cancer. The Enhanced decision aid. After the question and answer session and post-test, each man was asked to make a screening decision.	Chi-square, t tests, ANOVA, Mantel-Haenszel, and logistic regression	Post-test knowledge scores were similar between the two decision aids (Enhanced versus Usual Care), except for the men randomly assigned to the pre-test and to men with a previous digital rectal examination. The degree of differences in the post-test knowledge scores varied based on (1) decision aid of Enhanced versus Usual Care, (2) the status of pre-test and post-test versus post-test only, and (3) previous digital rectal examination or no previous digital rectal examination	A pre-test could enhance patient education. Nurses need to interpret and generalize research results based on the presence or absence of a pre-test in the research. Similarly, patient education in clinical practice that does not include a pre-test may have smaller knowledge gains than patient education that does not have a pre-test
Weinrich et al. (2008)	Prostate	Level II	To measure knowledge of prostate cancer screening based on exposure to one or two decision aids that were related to prostate screening (enhanced versus usual care)	Quantitative Quasi-Experimental Post-test-Only Design with Two Comparison Treatments	Personal: Lack of knowledge on prostate cancer screening options Clinical: lack of inclusion of AAs in informative materials	Two different interventions; the enhanced decision aid group or the usual care decision aid group. The main difference in content was that the enhanced decision aid had the physician and peer statements with pictures along with risk factors and symptoms. The usual guide was develop	The chi-square test, two-sided t tests, single factor ANOVA, and multivariable linear models were used	Men who read the enhanced decision aid had greater knowledge than did the men who received the usual care decision aid (P=0.04). Only men who had a previous history of DRE were found to have enhanced decision aid-related gains in total knowledge score (p=0.013)	This study highlights the impact of previous screening on education, and also challenges the assumption that increased knowledge of the limitations of prostate cancer screening will lead to decreased screening. Nurses should not hesitate to include all aspects of prostate cancer screening. Decision aids are helpful to empower the patient in their decision
Wood, R.Y., Duffy, M.E., Morris, S.J., & Carnes, J.E. (2002)	Breast	Level III	To test the effects of innovative age and ethnically sensitive, self-monitored, video breast health kits to increase knowledge about breast cancer risk and screening and BSE proficiency in a sample of older women	Quantitative-Quasi-Experimental Pre-test and Post-test Design with a Comparison Group	Personal: lack of information related to risk and fear related to screening, lack of knowledge about the disease, misconceptions regarding the etiology of breast cancer and fatalistic perspectives regarding outcomes	Age and ethnically sensitive video breast health kits for women older than 60 obtain specially designed videos targeting older women and provide breast health information appropriate to their age group and race. The video kit was produced in AA and Caucasian editions because these ethnic groups have the highest incidence of breast cancer in the United States	Pearson correlations, t tests, or chi-square tests, or ANOVA	All variables were significantly higher for the intervention group. The control group began with lower levels of knowledge and skills; those variables were not significantly changed at post-test	Oncology nurses and nurses practicing in primary-care settings are the ideal providers of information regarding breast cancer risk and strategies to enhance BSE proficiency in their clients. Nurses in other specialties must also meet the challenge to promote screening of cancers to ethnically diverse populations.

Barriers to Cancer Screening

All fourteen studies reported various cancer screening barriers specific to AA. Intrinsic barriers related to the patient included increased age (Coleman et al., 2003a), low income (Coleman et al., 2003a; Coleman et al., 2003b; Fowler et al., 2005; Grindel, Brown, Caplan, & Blumenthal, 2004; Mason et al., 2013; Shakleford et al., 2014; Weinrich et al., 2007), low literacy (Coleman et al., 2003a; Coleman et al., 2003b; Fowler et al., 2005), perceived ineffectiveness of screening (Coleman et al., 2003a; Shakleford et al., 2014), perceived reduced risk to cancer (Coleman et al., 2003a; Kelley, 2004; Sandiford & D'Errico, 2016), patient confusion about cancer screening guidelines (Coleman et al., 2003a), lack of health insurance (Coleman et al., 2003a; Coleman et al., 2003b; Fowler et al., 2005; Grindel et al., 2004), and lack of awareness about available cancer screening (Coleman et al., 2003b). In addition, reported intrinsic barriers included lower socioeconomic status (Fowler et al., 2005; Jerome-D'Emilia, Merwin, & Stern, 2010; Smith et al., 2015), incorrect beliefs regarding cancer susceptibility (Fowler et al., 2005; Kelley, 2004), fear and fatalistic beliefs (Fowler et al., 2005; Meade et al., 2003; Shakleford et al., 2014; Weinrich et al., 2007; Wood et al., 2002), cultural and religious beliefs (Fowler et al., 2005), lack of knowledge of education regarding cancer screening (Coleman et al., 2003a; Coleman et al., 2003b; Fowler et al., 2005; Grindel et al., 2004; Jerome-D'Emilia, Merwin, & Stern, 2010; Meade et al., 2003; Smith et al., 2015; Weinrich et al., 2007; Weinrich et al., 2008; Wood et al., 2002), negative health belief attitudes (Grindel et al., 2004), and lack of previous cancer screening history (Weinrich et al., 2007).

Although most studies mentioned personal barriers that are intrinsic to the patient, studies also discussed extrinsic barriers which patients had little control over. Extrinsic barriers included provider's confusion regarding screening guidelines (Coleman et al., 2003a; Jerome-D'Emilia, Merwin, & Stern, 2010), lack of providers serving rural communities (Coleman et al., 2003a), cost of screening services (Fowler et al., 2005; Shakleford et al., 2014), inconvenient screening locations (Fowler et al., 2005; Jerome-D'Emilia, Merwin, & Stern, 2010), previous negative experiences with healthcare providers (Fowler et al., 2005; Meade et al., 2003), providers not participating in continuing education (Jerome-D'Emilia, Merwin, & Stern, 2010), lack of culturally sensitive informative materials (Kelley, 2004; Weinrich et al., 2008), racial inequalities and institutionalized racism (Meade et al., 2003; Smith et al., 2015), and providers not initiating cancer screening (Sandiford & D'Errico, 2016). Some reported barriers may be classified as both intrinsic and extrinsic as they were not completely mutually exclusive. These barriers were scheduling conflicts and lack of follow-up service (Coleman et al., 2003a; Mason et al., 2013), inconsistency in control over health care design making (Fowler et al., 2005), lack of provided information enabling screening conversation initiation (Sandiford & D'Errico, 2016), lack of personal or public transportation (Shakleford et al., 2014), and difficulties in accessing care (Smith et al., 2015).

Nursing Interventions to Overcome Barriers

Continuing Nursing Education. Three studies focused on continuing education to improve the effectiveness of nurses when it comes to cancer screening in AA. Coleman at al. (2003a) used standardized patients to observe healthcare professionals' performance during cancer screening. The intervention variables were posters and pamphlets raising best practice breast cancer screening awareness among an intervention group of nurse practitioners in the Arkansas Delta. This was followed by direct feedback and newsletters to inform healthcare providers about screening methods (Coleman et al., 2003a). According to the Coleman et al. (2003a) study, the healthcare providers significantly improved in their demonstration of breast cancer screening practices on the post-test compared to the pre-test after participating in the intervention ($p = < 0.0001$).

Jerome-D'Emilia, Merwin, and Stern (2010) conducted an experimental pre-test and post-test control group study in a rural setting using web-based and videoconferencing distance learning methods. A 30-question pre-test and post-test was given to the randomized intervention group and control group nurses before and after a breast cancer continuing education program. In addition, Patient outcome data was also used to evaluate the long-term effect of the continuing education (Jerome-D'Emilia, Merwin, & Stern, 2010). The effect of the intervention on the value of acquiring a referral and an examination was statistically significant ($p=<.05$), which demonstrated substantial alterations in nurses' behavior. These results showed a positive effect on post intervention rates in the intervention group, and if no compounding factors in health center procedure occurred, this finding suggested that the nurses' improved knowledge of breast cancer screening affected their patients being screened (Jerome-D'Emilia, Merwin, & Stern, 2010).

Shakleford et al. (2014) utilized a quantitative pre-experimental one group pre-test and post-test design to examine how registered nurses were educated and trained to function as faith community nurses who can foster early breast cancer detection for those at risk in rural and African American populations. The study involved nine rural counties in Midwestern Illinois through networking with churches and communities for scheduling education sessions, yielding many African American participants. The authors administered a pre-test and then taught how to perform breast self-exams and had time to apply that knowledge using breast models. A question-and-answer session and post-test concluded each education session. Descriptive statistics comparing test results found that although responses to categories vary

for questions regarding their past breast self-exams and mammograms, 50% of participants claimed they planned to begin performing monthly breast self-exams after not previously completing them in the past (Shakleford et al., 2014).

Tailored Patient Teaching. Coleman et al. (2003b) used a multiphase quantitative quasi-experimental simple interrupted time-series design whereby nurse researchers pre-tested a group of patients before being issued either a photographic or illustrated version of educational materials based on random assignment. Results showed that for the 162 women who completed the pre-test/post-test (82 who received the drawings of the educational material and 80 who received the photographic versions) demonstrated that the women learned from both versions. The women who reviewed the materials had greater scores on the performance of breast self-exam techniques compared to the women who had not reviewed the materials. All but one of these women reported on the post-test that they planned to get a mammogram within the year. A subset analysis with only the AA who were 40 or older showed statistically significant ($p = 0.001$) finding (Coleman et al., 2003b).

Grindel et al. (2004) utilized a quantitative quasi-experimental pre-test and repeated measures post-test design with three comparison treatments. A total of 450 African American women participated in a 60-minute breast health intervention session that included watching one of the three randomly assigned videos. The results showed no significant differences among tonal message groups on knowledge of breast cancer over the three measurement periods ($p = 0.386$), indicating that the affective mood of the educational videos did not make a difference in attitudes as well as knowledge of breast cancer screening. The Chi-square test revealed a slightly higher mean score on post-test at 6.81 (SD = 1.76) than they were on pre-test at 6.17 (SD = 1.60). Though mammogram screening numbers increased post-intervention, there was no strong evidence that the intervention influenced this outcome (Grindel et al., 2004).

Kelley (2004) conducted a study involving culturally specific intervention program for African American women to alter selected behavioral risk factors, psychosocial responses, and breast self-care variables. A quantitative experimental pre-test and post-test control group design was used in a sample of 120 African American women randomly assigned to control and treatment groups (60 in the intervention group, 60 in the control group). The sample was obtained from four southern and three central Mississippi counties. The intervention group, in clusters of three to nine women, received the actual intervention, while the control group, in clusters of three to eight women, received education on poison control (Kelley, 2004). The intervention was a culturally appropriate breast health educational program on breast cancer risk factors, early detection benefits, clinical breast exam, and mammography. Correlation coefficients and a repeated measures ANOVA controlling for covariates revealed that there was no statistical evidence that the intervention influenced psychosocial response and perceived barriers to breast self-exam or clinical breast exam (Kelley, 2004).

Wood et al. (2002) used a quantitative quasi-experimental pre-test and post-test design with a comparison group. The researchers studied the effect of separate African American and Caucasian edition video breast health kits on 328 older women (206 in the intervention group, 122 in the control group). The 206 subjects who had access to home VCRs and could use the breast health kits at home were assigned to the intervention group, and the 122 control subjects were only given a pamphlet which was also included in all breast health kits for the intervention subjects. Individual pre-test and post-test interviews conducted by nurses at two-week intervals assessed knowledge about breast cancer risk and screening and breast self-exam. The study results revealed that the post-test scores for all three variables were significantly higher for the intervention group ($p=<0.05$) (Wood et al., 2002).

Use of Disease Specific Decision Aids. Two studies were focused on various prostate cancer decision aids and on the nurses' use of them in affecting change in cancer screening. The two studies were conducted by the same author. Using a quantitative experimental pre-test/no-pre-test and post-test design with four comparison treatments, Weinrich et al. (2007) used a Solomon Four research design to evaluate both the two different types of decision aids as well as the effect of a pre-test on the results of a post-test examination. The examination focused on evaluating facts and guidelines for prostate cancer. The results revealed that the post-test knowledge scores were similar between the two decision aids (Enhanced vs. Usual Care), except for the men randomly assigned to the pre-test and to men with a previous digital rectal examination (Weinrich et al., 2007).

Weinrich et al. (2008) used a quantitative quasi-experimental post-test only design with two comparison treatments to measure knowledge of prostate cancer screening based on exposure to one of two decision aids. The decision aids relate to prostate screening (enhanced versus usual care). This study recruited 230 men (80.9% AA) from ten different health centers in the Midwest. The men were randomly assigned by time to one of two decision aid groups: enhanced or usual care aids. The main difference in content was that the enhanced decision aid had physician and peer statements with pictures, along with risk factors and symptoms. The usual guide was developed by the American Cancer Society and emphasized the importance of obtaining facts about screening types. Post-tests were administered after providing a decision aid, and each participant met with a physician

or nurse practitioner for questions followed by a screening decision (Weinrich et al., 2008). The results revealed that men who read the enhanced decision aid had greater knowledge than did the men who received the usual care decision aid ($p = 0.04$). Only men who had a previous history of a digital rectal exam were found to have enhanced decision aid-related gains in total prostate cancer knowledge score ($p = 0.013$) (Weinrich et al., 2008).

Integration of Shared Decision Making Care Delivery Model with Decision Aids. One study also used prostate cancer decision aids but had an emphasis on shared decision making as the nursing intervention. Sandiford and D'Errico (2016) utilized a quantitative pre-experimental one group pre-test and post-test design to describe the development and implementation of a prostate cancer screening intervention and risk assessment decision tool for increasing prostate cancer knowledge and to facilitate shared decision making for African American men. The study settings of this study were two churches in different suburban Southern California communities. Seventeen men participated at one church location, and 42 men participated at the other church location. The pre-test/post-test questionnaires, prostate cancer screening decision aid, and a PowerPoint presentation by a radiation oncology nurse were completed on the same day (Sandiford & D'Errico, 2016). Using descriptive statistics, the results showed that the percentage of correct responses to the knowledge questions at pre-test was 69% and 77% at post-test (8% improvement). Increases were observed in personal risks awareness, having the information needed for healthcare provider discussion initiation, and intention to partake in shared decision making within six months (Sandiford & D'Errico, 2016).

Use of Focus Groups Methodology. One study used eight focus groups, four of which comprised of African American men, to generate data for creating the content of a prostate cancer educational toolbox intervention (Meade et al., 2003). With a qualitative focus groups formative research design, the focus group participants were recruited through various manners including flyers, community outreach, health educators, community nurses, and word of mouth. The discussion guide comprised of a question series that moved from general topics, to health, to cancer, and then to prostate cancer. Mead et al. (2003) found that African American men preferred their health spokespeople to include cancer survivors, credible and compassionate healthcare providers, and community members with whom they could identify. Resultant themes from the focus groups were used to develop the content of the prostate cancer toolboxes which were then tested among community members (Meade et al., 2003).

Collaboration with Clinicians from Other Disciplines Creating a Multidisciplinary Care Team. Three research articles focused on overcoming cancer screening barriers by having nurses collaborate within a team of various disciplines. Fowler et al. (2005) described the phases of a collaborative breast health intervention delivered by community health advisors trained by advanced practice nurses who targeted African American women with the intention to increase mammography screening. A quantitative pre-experimental one group pre-test and post-test design enabled the researchers to describe how community health advisors used aggressive recruitment strategies including initial recruitment, educational content, appointment reminders, mammography screening, follow-up contact, and program evaluation. The study goals were to increase mammography screening and knowledge of breast health and mammography screening. Sixty eight African American women from a large city in Ohio participated in the study (Fowler et al., 2005). During follow-up contact to schedule mammography screening, an 18-item pre-test was administered prior to an educational intervention. After receiving mammography from the x-ray technician collaborators, the 18-item post-test was administered. The women were particularly knowledgeable after the education intervention about breast anatomy and abnormal symptoms, recommendations, mammography screening, and the effect of familial history ($p = < 0.05$). Almost all the women (96%) commented that the educational materials were easy to interpret and effectively targeted African American women. Most women (90%) reported that they acquired meaningful breast health information and would obtain future breast screenings when reminded by their healthcare professionals (Fowler et al., 2005).

Mason et al. (2013) trained community patient navigators (non-nurses) who hosted 207 total breast health education events with 9,601 attendees during the AVON Foundation events. Three hundred four community members, who tended to be African American and low income, completed a mammography interest forms. These were then referred to a nurse practitioner. The nurse practitioner determined that 64 women out of 304 were eligible for a free or low-cost mammogram through the Georgia Cancer Screening Program. The community patient navigator collected data through questionnaires and delivered telephone follow-up to encourage participants to make and keep their mammogram appointments (Mason et al., 2013). The results revealed that those who reported symptoms were 2.01 times more likely to have a mammogram than those who were asymptomatic ($p = .05$) (Mason et al., 2013).

Smith et al. (2015) utilized a quantitative quasi experimental one group pre-test and post-test design in a pilot study of a train-the-trainer program under the direction of the Metropolitan Chicago Breast Cancer Task Force. Changes in breast health knowledge scores before and after the training were examined. The knowledge exam included questions

relating to breast self-exam, clinical breast exam, screening mammography, genetic risk, and risk reduction techniques. The results showed no statistically significant difference between pre and post-test mean scores. However, an improvement was seen on the post-test scores after program completion but statistical significance may have not been detected due to a small sample size (Smith et al., 2015).

Discussion

The integrative literature review findings reported in this study underscore the contributions of nurses in overcoming barriers to cancer screening in AA. The scope of the nurse's role in cancer screening in AA is wide and made easily visible through the synopsis of nursing interventions employed by nurse researchers in this field. Overall, these nursing interventions are influential in improving knowledge and positively changing attitudes and behaviors for cancer screening in an oncology patient population with a known racial disparity in cancer stage at diagnosis and cancer death rate. However, an actual increase in cancer screening uptake was not measured in the majority of studies (>90%) included in this review. This review revealed that nurses have various roles in developing culturally appropriate continuing education, fine-tuning patient education interventions based on identified needs, helping patients utilize cancer specific screening decision aids, integrating shared decision making care delivery model, and collaborating with other clinicians in various disciplines.

This integrative literaturereview provides valuable insights on the past and most current nursing interventions designed to improve cancer screening in AA population. The implications of these evidence-based nursing interventions for nursing practice include strong consideration for cultural, religious, personal and socioeconomic factors that can significantly affect the intended patient outcomes such as improved knowledge level and positive attitudes toward cancer screening, and actual increase in cancer screening uptake.

The nursing scope of practice involves educating the patient and respecting patient's culture. In order to adequately do so in oncology and primary care settings, nurses must be adequately prepared to discuss cancer screening, must be fully informed of the current recommended screening guidelines, and should be well-informed on existing racial disparities in cancer screening outcomes (Kidd, Colbert, & Jatoi, 2015). Studies conducted by Coleman et al. (2003a), Jerome-D'Emilia, Merwin, and Stern (2010), and Shakleford et al. (2014) illustrated the key concepts of HBM, particularly improving knowledge through patient education to increase self-efficacy as posited by Hochbaum (1958) and the preservation of culture during the delivery of nursing interventions as described by Leininger (2006).

Implications for Practice

This integrative literature review explored nursing interventions evaluated for effectiveness in overcoming barriers to early cancer detection in AA. Not only are AA predisposed to risk factors that increase their incidence of various cancers, secondary prevention in the form of cancer screening is not being utilized adequately in this population. Due to many factors such as personal, socioeconomic, structural, and clinical barriers, AA face various obstacles to obtaining appropriate screening methods. The challenges for nursing and evidenced-based nursing intervention in the realm of reducing cancer disparities for AA include designing innovative ways to gain trust of AA, delivering a clear and powerful message, and providing various means to increase cancer screening and secondary cancer prevention. In addition to increasing routine cancer screening, a variety of channels and formats for the delivery of education and statistical messages are critical to the success of the interventions.

AA population has one of the highest rates of uninsured and underinsured individuals among minorities, which is linked to poor access to preventive care services including cancer screenings (Siegel, Miller, & Jemal, 2017). Clinical trials and reliable interventions should be available regardless of income, lifestyle, and demographics (Centers for Disease Control and Prevention, 2017). Nurses, particularly those who work in the primary care setting, spend the most time with patients compared with other healthcare providers; hence, there is a responsibility and duty as a patient advocate to step up and do everything within the scope of nursing practice to combat the unnecessary morbidity and mortality associated with cancer screening disparities in the AA population. Nurses must apply evidence-based nursing interventions identified in this review into their current practice and must also evaluate outcomes from these nursing interventions.

It is important to recognize that personal responsibility and accountability are key factors for adherence to cancer screening and performance of early detection self-management strategies. However, personal responsibility and accountability are heavily reliant on one's personal health beliefs, values and abilities as seen in Health Belief and Self-efficacy biobehavioral health models. These models are frequently utilized as frameworks for the development of theoretically-based nursing interventions. Other external forces such as lack of insurance coverage due to poverty, health illiteracy (lack of formal education and inability to read, write and understand English), unemployed status (employment-based health insurance system), illegal immigration status, being male (environmental exposures, endogenous hormones and the probable major interplay between these factors in men) and other social determinants of health can also influence both stage at diagnosis

and cancer death rates (Williams, Mohammed, & Shields, 2016). In 2010, the Patient Protection and Affordable Care Act and the Health Care Education Reconciliation Act, together known as the Affordable Care Act or ACA, doubled the number of insured AA. Given the fact that both stage at diagnosis and survival are closely aligned with insurance coverage (Ward et al., 2008), Siegel et al., (2017) attributed ACA as one of the key factors that may expedite the narrowing racial gap in cancer death rate from its peak at 40% in 1990 to 15% in 2014.

Implications for Research

This integrative review revealed various instruments and outcomes reported in studies that examined the barriers and nursing interventions for cancer screenings in AA population. With no consensus on outcomes that must be measured following the implementation of nursing interventions, a systematic review on effective nursing interventions for cancer screening in this population is not feasible. Experts in this field must develop a consensus statement on key outcomes from cancer screening interventions (e.g., increased knowledge, positive attitudes and actual improvement in cancer screening in the study sample). The measures for assessing the attributes of knowledge and attitudes relevant to cancer screening should be standardized in order to make more meaningful interpretations and improve generalizations across various ethnicities in future research studies. Social determinants of health particularly lack of insurance and poor access to preventive services in rural areas should be accounted for in future research studies.

Conclusion

The applications of various evidence-based nursing interventions found in this integrative review can potentially decrease the morbidity and mortality rates associated with cancer screening disparities among AA. Insurance coverage and access to preventive care services must be addressed in order to improve the efficacy of nursing interventions in AA population. A knowledge gap still exists in how medical, nursing and social sciences can work together synergistically to deliver effective and efficient interventions that can increase cancer screening uptake leading to early cancer detection and reduction of cancer death rate in AA population.

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