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Improving Access to Colorectal Cancer Screening in Latino Communities in California: Eliminating Transition to Practice Hours for Nurse Practitioner Full Practice Authority

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DOCTOR OF NURSING PRACTICE

IMPROVING ACCESS TO COLORECTAL CANCER SCREENING IN LATINO COMMUNITIES IN CALIFORNIA: ELIMINATING TRANSITION TO PRACTICE HOURS FOR NURSE PRACTITIONER FULL PRACTICE AUTHORITY

by

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Abstract

Purpose: The purpose of this evidence based practice Doctor of Nursing Practice (DNP) project was to investigate barriers to colorectal cancer screening in young Latinos living in California. The goals of this project included examining current trends in colorectal cancer in young Latinos, factors which affect access to care, and the current and future state of the California primary health care provider workforce. The aim of this project was to make recommendations regarding strategies to improve access to colorectal cancer screening among Latinos in California.

Background: Early onset colorectal cancer (EO-CRC) is increasing in Latino communities, with colorectal screening rates estimated as low as 47%. The inability to gain access to primary care, coupled with the decreasing primary care workforce supply in California exacerbates this problem. Nurse practitioners are well positioned to combat this issue; however, state restrictions significantly limit this solution. The recent passage of AB-890 allows for full practice authority for nurse practitioners; however, stipulations attached to this bill, including mandatory transition to practice hours, significantly delays entry into the workforce.

Methods: Kingdon's health policy model provided the framework for this project. The conceptual model used to guide the literature review was Penchansky and Thomas's 5 dimensions of access. Nursing theorist Madeline Leininger's theory of culture care diversity and universality was used to guide this project.

Results: There is an expected increase in supply of primary care nurse practitioners by the year 2030 and a continuing decline in primary care physicians in the state of California. Primary care physicians are less likely than nurse practitioners to accept patients without insurance or Medi-Cal and to practice in underserved areas. In states where nurse practitioners had full practice

authority, there was concomitant 100% Medicaid reimbursement and patients were 20% less likely to drive 30 minutes or more to see a provider. Nurse practitioners demonstrated equal to improved outcomes when compared to other providers and provided high quality care to patients when emergency full practice authority was granted during the COVID-19 pandemic. Cultural concordance and the elimination of implicit bias increases the likelihood of improved patient access.

Evaluation: The removal of transition to practice hours for full practice authority for nurse practitioners in California is critical to ensure adequate access to healthcare for young Latinos living in California. Future studies should examine the impact of nurse practitioner implicit bias education on culturally concordant care and access to care

Keywords: nurse practitioner full practice authority, access to healthcare, Latinos, colorectal cancer screening

Introduction

Early onset colorectal cancer (EO-CRC, age <50 years) is a growing health threat to Latinos living in the United States. Incidence of colorectal cancer has been cited as increasing 48% across all age groups in Hispanics, with a 45% increase noted in EO-CRC (Jackson et al., 2015; Koblinski et al., 2018). Falling well below the Healthy People 2030 goal of 74%, the percentage of Latinos undergoing colorectal screening has been calculated as low as 47%, whereas, non-Hispanic blacks and non-Hispanic Whites had higher rates of screening at 60.3% and 65.6%, respectively (CDC, 2022). Barriers to undergoing colorectal cancer screening in Latino communities have been identified as lack of physician recommendation, poor knowledge of health risk and difficulty accessing primary health care (Napoles et al., 2015).

The ability to gain access to primary health care in this population is multifactorial and includes distance to the nearest provider, cultural and language barriers, lack of insurance, access to transportation, and supply of available providers (California Healthcare Foundation, 2021a). In the state of California, the current primary care physician workforce supply, distribution, and demographics have been identified as inadequate to meet the needs of the population, further exacerbating the issue (Coffman et al., 2017). Nurse practitioners entering the workforce are well positioned to combat this problem; however, state restrictions on full practice authority have significantly limited this solution. In the state of California, recent passage of AB-890 allows for full practice authority; however, stipulations attached to this bill include mandatory transition to practice hours which significantly delays entry into the workforce.

Background

Colorectal cancer is recognized as the third most common cancer diagnosed in men and women in the United States, with overall incidence in the population of 37.2 per 100,000 people

(Read et al., 2020). This number has dropped dramatically in recent years due to the advent of routine colonoscopy performed in patients aged 50 years or greater. Prior to the institution of such screening, it was noted that overall incidence was as high as 66.3 per 100,00 in 1985 (Read et al., 2020). Conversely, the rates of colorectal cancer in young adults less than 50 years of age (EO-CRC) has been noted to be increasing. Currently, colorectal cancer is the second most commonly occurring cancer and the third leading cause of death among cancer patients in this age group (Patel et al., 2018).

Multiple studies on young adults who have developed a colorectal cancer showed that most cancers were located in the left sided colon or rectum when compared to their counterparts who were diagnosed at age 50 or older (Kasi et al., 2019). The etiology for the preponderance of cases in the left sided colon and rectum in this age group is currently unclear (Kasi et al., 2019). Previously, hereditary factors were thought to be the driving force behind the development of colorectal cancer cases; however, the greatest number of new cases diagnosed over the last several decades have showed sporadic rather than hereditary causes (2019).
Between the years 1992 and 2005 there was a noted yearly increase of 1.5% in men and 1.6% in women, respectively (Read et al., 2020). Whereas colorectal cancer deaths have significantly decreased in people age 50 years and over by as much as 34%, colorectal cancer deaths in young adults have increased by 17% (Read et al., 2020).

Increases in mortality rates are most likely attributed to advanced stage at presentation, whereby young adults with colorectal cancers are more likely to involve regional lymph nodes or evidence of distant disease at presentation (You et al., 2020). Patients in this age group also have higher incidence rates of larger tumor size, and lymphovascular or perineural invasion at the time of diagnosis (You et al., 2020). Tumor histology including signet cell and mucinous features

have also been identified as contributing factors to increased mortality rate in this age group (You et al., 2020).

Given the significant rise in colorectal cancer cases in young adults, The American Cancer Society in 2018 lowered the age for screening colonoscopy to begin at age 45 for patients of average risk. Data from the National Cancer Database indicated that 75% of cancer cases occurred between the ages of 40 and 49 with median age of diagnosis at age 44 (Read et al., 2020). Despite this change in recommendation, young adults are often more hesitant to seek care when compared to their older counterparts, with average time of onset of symptoms to presentation at a clinician's office as high as 6.2 months (You et al., 2020). Additionally, young patients with symptoms such as rectal bleeding are often mistakenly attributed to benign pathology such as hemorrhoids, which further delays initiation of treatment (You et al., 2020). Because of these delays, young adults are more often diagnosed with advanced cancer staging at presentation (Levine et al., 2019).

EO-CRC Latinos

Early onset colorectal cancer (EO-CRC) in Latinos has been cited as double that of their white counterparts, at 16.5% and 8.7%, respectively (Acuna-Villaorduna et al., 2021). Overall incidence of EO-CRC among Latinos is rising 2.35% annually, in comparison to Whites at 2.02% (Muller et al., 2021). Colorectal cancer screening rates among Latinos were noted to be significantly lower at 50% compared to 65% in Whites (American Cancer Society, 2020). Low rates of colorectal cancer screening rates in this population contributes to increases in morbidity and mortality. Reasons for decreased screening are multifactorial and include employment rules regarding time off from work and preventive services, and underinsurance (Viramontes et al., 2020). Additionally, screening disparities have been linked to health system practices, where

lower cost options are preferred over colonoscopy (Viramontes et al., 2020). Other risk factors for low screening rates have included distrust in providers, lack of provider recommendation, language and literacy challenges (Nagelhout et al., 2017).

As of 2020, 69% of Latinos living in California were living below 100% of the poverty level, which is estimated at $26,500 for a family of 4 per year, and 20% endorsed that they had no usual source of care (California Health Care Foundation, 2021). Delays in care were primarily attributed to lack of insurance and cost, and finding a doctor or specialist (California Health Care Foundation, 2021). When examining health care coverage in California, 44.9% of Latinos were enrolled in Medi-Cal, 21.69% were eligible but not enrolled, and only 31.6% were insured through an employer plan (Torralba, 2019). For those patients who had access to a physician, lack of race and cultural concordant relationships were associated with less health services and delays in seeking care (Traylor et al., 2010). Cultural concordance and the elimination of implicit bias increases the likelihood of improved patient access. Implicit bias has been well documented as impacting both the behavior and judgment of health care providers (Zestcott et al., 2016). Implicit biases were most likely to negatively impact levels of care, diagnosis, and treatment decisions, as well as negatively affect provider communication patterns, and patient perceptions of recommended treatment plans ((Fitzgerald & Hurst, 2017, Mayden, 2021).

California Primary Care Workforce

Examination of the California primary care health work force demonstrates a significant shortage of physicians (see Table 2). With five of the nine regions in the state falling below the recommended supply of primary care physicians (PCP), only 16.7% of California physicians were noted to practice in a primary care specialty (California Health Care Foundation, 2021b). The projected supply of primary care physicians by 2030 is projected to decrease between 8%

and 25% due to fewer physicians completing residencies in primary care. Additionally, Latinos represent approximately 39% of the California state population; however, only 6% of the physician workforce in California is Latino (California Health Care Foundation, 2021b). Additionally, Latino physicians were largely underrepresented in regions with the highest Latino populations (2021b). More than half of the existing primary care physician work pool is between the ages of 40 and 60, further reducing the future work pool in the setting of retirement. In tandem with a reduced workforce, primary care physicians were also less likely to accept patients without insurance or Medi-Cal (California Health Care Foundation, 2021b).

In contrast to physicians, 58.8% of California nurse practitioners provide primary care (California Health Care Foundation, 2019), with Latino nurse practitioners representing 19% of the work force (Coffman et al., 2017). 89% of primary care nurse practitioners were noted to accept Medi-Cal patients and 85% accepted patients with no insurance (California Health Care Foundation, 2019). Like the physician workforce, more than half of NPs are between the ages of 45 and 64 (Coffman et al., 2017). With the expected loss of retiring nurse practitioners, new nurse practitioners will comprise the largest segment of the workforce. In fact, the supply of nurse practitioners in primary care is projected to increase between 82% and 157% by 2030 (Spetz et al., 2017).

Assembly Bill 890

In response to the expected physician shortage and lack of primary health care providers in underserved and rural areas, Chair of the Assembly Health Committee, Commissioner on the California Future Health Workforce committee, and Dentist, Jim Wood-D (2nd District) introduced Assembly Bill 890 (AB 890). The intention of the bill was to provide full practice authority for nurse practitioners in the state of California. Wood noted that California, which is

known for innovative and forward thinking solutions, was lagging in addressing the needs of the residents living in the state of California (California State Assembly Democratic Caucus, 2020). Additionally, at the time the bill was introduced, 22 states had already enacted full practice authority further highlighting the need for California to follow suit. This was quickly followed by the COVID-19 pandemic, where remaining states enacted emergency full practice authority to nurse practitioners. Since that time, states without full practice authority have lifted the emergency status and have either returned to pre-pandemic rules and regulations or have advanced legislation to create a permanent state of full practice authority. Currently, 21 states remain in restricted practice status, 14 states have full practice authority without practice restrictions, and 16 states have full practice authority with transition to practice hours (Phillips, 2021). Of the 16 states that require transition to practice rules, there is a significant disparity in regulations. Rules range from a minimum of 750 hours post-licensure practice in Colorado, to West Virginia's 3-year post-licensure practice period, which also excludes controlled substances, antineoplastic, radiopharmaceuticals and general anesthetics, to California's 4,600 hour post-licensure practice period (Phillips, 2021).

Ultimately, AB-890 was signed into law by Governor Newsom September 2020, effective January 1, 2023. Since that time, the formal regulatory process began with the Board of Registered Nursing 2021, with voting at that time to initiate the rulemaking process for AB-890. Nearly 1 year later, September 2022, the board of registered nursing released its Notice of Proposed Action: Categories of Nurse Practitioners and Scope of Practice to amend AB-890, which included the creation of two new categories of nurse practitioners. The first category, NP 103, stipulates that a nurse practitioner must be in practice with a supervising physician for three full time equivalent years of practice or 4600 hours within the last 5 years prior to application.

The second category, NP 104, allows for independent practice of the nurse practitioner in their specialty which occurs within a group setting. Nurse practitioners in this category will be unable to open an independent practice outside of a group setting until after 2026. In November 2022, the California Board of Registered Nursing voted to adopt AB 890 regulations, at which time the bill was sent to the Office of Administrative Law (now the Business, Consumer Services & Housing Agency) for final approval. Additionally, the Office of Professional Examination Services presented its findings to the board, which recommended additional supervised clinical experiences and mentoring requirements as part of the transition to practice requirement (California Association for Nurse Practitioners, 2022). Although this bill is a significant step forward in addressing the shortage of providers in the state of California, transition hours required for independent practice delays both new and experienced nurse practitioners from addressing significant health gaps in Latino communities, including colorectal cancer screening. With an average of 9 years of experience nurse practitioners are well equipped to move into independent practice (American Association of Nurse Practitioners, 2022).

Health Policy Issue

Policy Problem Statement/PICO:

Problem: Early onset colorectal cancer (EO-CRC) is on the rise in young Latinos and CRC screening is lowest among this group

Intervention: Increasing the available Primary Care Nurse Practitioner workforce by amending AB 890 to eliminate transition to practice hours for new Nurse Practitioners

Comparison: Current AB 890 requiring 4600 hours or 3 years of full-time practice

Outcome: Increased primary care workforce, improved access to colorectal cancer screening, decreased colorectal cancer associated morbidity and mortality in young Hispanics

Among young Latinos living in California, will amending AB 890 to eliminate transition to practice hours for nurse practitioners versus the current state of AB 890 improve access to colorectal cancer screening?

Methodology

The purpose of this project was to investigate barriers to colorectal cancer screening in young Latinos living in California. The goals of this project included examining current trends in colorectal cancer in young Latinos, factors which affect access to health care, and to examine the current and future state of the California health care provider workforce. The aim of this project was to make recommendations regarding strategies to improve access to health care, including lifting transition to practice hours for nurse practitioners to expedite the expansion of the primary care work force in the state of California

Nursing Theory

The nursing theory used to guide this project was Madeline Leininger's theory of culture care diversity and universality (see Figure 1). This theory was crafted as a guide for nursing researchers to examine practices related to culture care that influence the health of individuals, families and cultural groups, with the goal of providing culturally congruent care (McFarland & Wehbe-Alamah, 2019). This includes four tenants of care, with the fourth tenant including culture care decisions and action modes (McFarland & Wehbe-Alamah, 2019). The three action modes of this tenant include culture care preservation, culture care accommodation and culture care repatterning. Culture care modes are intended to enable provider actions that assist with

culturally congruent, effective, and safe care to promote health and well-being, and to enable professional actions that help people change, modify or restructure their lives to achieve better health outcomes (McFarland & Wehbe-Alamah 2019). Additionally, Leininger's policy statements to guide transcultural nursing standards and practices serve to guide action making to ensure quality based care (Mcfarland & Wehbe-Alamah 2002). This includes ensuring ethically sound and respectful polices to people of diverse cultures as well ensuring transcultural policies consider the community in which they are used and examined over time (Mcfarland & Wehbe-Alamah 2002).

Health Policy Framework

Kingdon's policy stream (1984) was the health policy framework utilized to guide this project. The model purports that policy change occurs when three streams connect, which includes the problem stream, policy stream, and political stream (see Figure 3). The problem stream for this analysis includes significant health disparities in Latinos in the state of California, the rising rates of colorectal cancer in Latinos related to low screening rates, and a small, diminishing primary care workforce. The policy stream is AB-890 and policy solutions which can make the current bill more effective. This entails removing transition to practice hours for full practice authority for nurse practitioners in the state of California. The political stream or impetus which can drive this policy change forward are the health disparities recently brought to the forefront with the COVID-19 pandemic.

Evidence Based Review of the Literature

Conceptual Model

The conceptual model used to guide the review of the literature was Penchansky and Thomas dimensions of access (1981). The model (see Figure 2) defines access as the relationship

or “fit” between the system and the clients, with 5 dimensions explored (1981). This includes accessibility, which examines the location of available providers in relation to where the patient lives. Additionally, the availability of the provider and services in relationship to the patient volume and demand. Acceptability, or, the patient’s personal preferences and expectations, including age, sex, and ethnicity. Affordability of the healthcare, which includes the patient’s ability to pay, Lastly, accommodation, whereby the services can meet the patient’s needs, including hours of operation and appointment systems (1981).

Literature Search Methods

A review of the literature was conducted using the University of San Diego’s Copley Library. Databases utilized during this search included PubMed, Cinahl, and Cochrane Library. The key words for this search included Latinos, colorectal cancer screening, health disparities, health access, nurse practitioner scope of practice, nurse practitioner outcomes, full practice authority, and California primary care workforce.

Early Onset Colorectal Cancer Latinos United States

Examination of national trends in EO-CRC in Latinos demonstrated a case rate of twice that of non-Hispanic Whites, with earlier age and more advanced stage at presentation (Rahman et al., 2015). Examining data from 2001–2014, Garcia et al. (2018) also noted significant increases in EO-CRC in Latinos compared to Whites, where Latinos ages 20–29 demonstrated the largest relative increase at 90% versus 50% in Whites.

Early Onset Colorectal Cancer Latinos in California

In a study by Ellis et al. (2018), statistically significant increases in EO-CRC were noted in both early-stage colorectal cancer (1.6%) and late stage (2.2%) in Latinos living in California between the years 1990 and 2014. Similarly, an earlier study by Singh et al. (2014) examining

the rates of colorectal cancer in Latinos living in California between the years of 1988 and 2009. Findings demonstrated the largest increase in incidence of colorectal cancer in Latinos, and the lowest screening rate at 47%, when compared to other racial and ethnic group.

Barriers to Colorectal Cancer Screening in Latinos

Work schedule, lack of provider recommendation, cost, language barriers, and difficulty discussing their health with a provider from a different cultural background were reported as primary rationale for not seeking colorectal cancer screening among Latinos (Gonazalez et al., 2020). Implicit bias has been well documented as impacting both the behavior and judgment of health care providers (Zestcott et al., 2016). In a systematic review by Fitzgerald and Hurst (2017), implicit biases were most likely to impact levels of care, diagnosis and treatment decisions. When examining recommendations for colorectal cancer screening, Johnston et al. (2022) found that one of the most significant predictors for non-recommendation of cancer screening was race.

Workforce Diversity

Acceptability and diversity of the healthcare workforce is requisite to reducing health disparities in the communities. It was noted that the primary care nurse practitioner work force was largely concentrated in communities with high ethnic minority populations, and greater numbers of nurse practitioners from communities of color in relation to the population in states that granted full practice authority to nurse practitioners (Plemmons et al., 2023, Poghosyan & Carthon, 2017). Additionally, nurse practitioners from underrepresented backgrounds provided culturally competent care leading to increased trust and use of health care service (Poghosyan & Carthon, 2017). Patients were also more likely to undergo preventative healthcare and testing if they were comfortable with their provider (Plemmons et al., 2023).

Healthcare Accessibility

The accessibility and distance to a health care provider impacts the ability of patients to gain access to care. In states where nurse practitioners were granted full practice authority, patients were 20% less likely to have a 30-minute or more drive to a medical provider (Neff et al., 2018). Long distances and lack of transportation to provider appointments were found to be a major barrier to health care and colorectal cancer screening in medically underserved rural areas (Lee et al., 2023).

Healthcare Affordability

The affordability of health care, including cost of insurance and payment type accepted by providers impacts the ability of patients to obtain health care. In states where nurse practitioner scope of practice was expanded, care access and intensity was increased without cost increases (Peghosyan et al., 2019). In states that granted full practice authority for nurse practitioners, there was concomitant 100% Medicaid reimbursement (Barnes et al., 2018). Conversely, states which required collaborative agreements with physicians were noted to have low Medicaid reimbursement and served as barriers to nurse practitioners practicing in underserved areas (Barnes et al., 2018).

Nurse Practitioner Outcomes

NP outcomes have consistently demonstrated equal to modestly improved outcomes when compared to other providers. The Covid-19 pandemic highlighted this phenomenon, when many states with nurse practitioner restrictions were lifted. Emergency, full practice authority was granted, which demonstrated high quality care to diverse patients across multiple settings (Poghosyan et al., 2021). Similarly, in a study by Liu et al. (2020) patients assigned to nurse

practitioners had fewer hospitalizations, had no worse outcomes than patients cared for by physicians, and achieved similar clinical outcomes among patients with chronic diseases.

Gray Literature

The gray literature also demonstrates and supports improved access to healthcare in states that had lifted nurse practitioner practice restrictions. The CDC (2022) noted that nurse practitioners working in states that had recently expanded their scope of practice had large growth in the workforce and decreased barriers to care for those patients living in chronically underserved areas. Nurse practitioners were also more likely to practice in innovative settings due to their openness to new practice ideas and shifting health care needs (CDC, 2022).

The American Association for Nurse Practitioners (AANP) supports full practice authority for nurse practitioners, with an emphasis on primary care nurse practitioners to help reduce chronic diseases and combat increasing costs of health care (AANP, 2022). With 65.3% of nurse practitioner graduates completing Family Nurse Practitioner examination, new graduates are well trained and sufficient in numbers to help meet the health care needs in the United States (AANP, 2022).

The Institute of Medicine (IOM) identified equity in care as one of six pillars needed for quality health care, which was defined as care that was consistent in quality regardless of gender, ethnicity, socioeconomic status or geographic location (Agency for Healthcare Research Quality, 2015). In their report, The Future of Nursing: Leading Change, Advancing Health (2011), recommendations include ensuring nurses practice to the full extent of their education and training, and partnering in full with other health professionals and physicians in redesigning the health care system. Most recently, The National Academy of Science and the Robert Wood Johnson Foundation released their consensus study report entitled The Future of Nursing 2020–

2030: Charting a Path to Achieve Health Equity (2021). In this report, the fourth recommendation states that:

> all organizations, including state and federal entities and employing organizations should enable nurses to practice to the full extent of their education and training by removing barriers that prevent them from more fully addressing social needs and social determinants of health and improving health care access, quality, and value. (Charting a Path to Achieve Health Equity, 2021, p. 363)

Specific recommendations for implementation included making permanent those changes that were made to state and federal laws enacted during the COVID-19 pandemic, including scope of practice, insurance coverage, telehealth eligibility and payment parity (Charting a Path to Achieve Health Equity, 2021).

Feasibility

Stakeholder Analysis

To ensure the health policy issue is well supported, identifying key stakeholders is crucial. This includes the creation of a stakeholder analysis matrix (see Table 1) which ranks organizations on a scale from one to ten based on numbers of members, financial resources, intensity of interest surrounding the issue and unity of the group (Seavey et al., 2014). Although all five organizations are strong stakeholders for this policy issue, the American Medical Association was ranked highest in all areas, with significant membership numbers and budget, far exceeding any other group in the matrix. The Oncology Nursing Society was included for their role in oncology advocacy and access to quality care, and their commitment statement to support oncology nurses in delivering equitable care to cancer patients (Oncology Nursing Society, 2022). Similarly, the Academy of Oncology Nurse and Patient Navigators were ranked

high in unity and intensity, with their mission and vision advocating for development of best practices for improving patient access to care and evidence based cancer treatment and patient centered care coordination through the cancer care continuum (AONN, 2022). The ONS demonstrated high intensity regarding this issue; however, the California Association of Nurse Practitioners (CANP) has already demonstrated significant support through their sponsorship of AB-890. Therefore, the CANP should be considered a top stakeholder in addressing nurse practitioner full practice authority.

Conflicts and Barriers

Barriers to removing transition to practice hours for nurse practitioners includes organizations who debate independent nurse practitioner practice, including The Academy of Pediatrics, American Academy of Family Physicians, American Osteopathic Association and the American Medical Association (Abraham et al., 2019). In 2017, The American Medical Association adopted Resolution 214 to oppose the Advanced Practice Registered Nurse Compact, which would allow independent practice of nurse practitioners without physician oversight in states that participate in the Compact (American Society of Anesthesiologists, 2017). Despite approximately 66 million American living in areas identified by the Health Resources and Services Administration as primary care Health Professional Shortage Areas, the American Medical Association continues to put forth information which contradicts this information (Sofer, 2018). They further purport that nurse practitioners are not filling the gaps in states with full practice authority, despite multiple studies demonstrating increased access and growing numbers within the nurse practitioner workforce (Sofer, 2018). Furthermore, the American Medical Association continues to cite hours of training required for licensing as a defining characteristic of better care and outcomes. This misinformed rhetoric does not take into

consideration nurse practitioner experience and competency both prior to and after entering graduate programs. The American Association of Nurse Practitioners (AANP) counter that effectiveness of education should be contingent solely on patient outcomes, shifting the focus away from differences in physician and nurse practitioner education (AANP, 2021). Other points that should be considered when examining nurse practitioner education includes formal education received by nurse practitioner students prior to entering graduate school, competency based education requisite for nurse practitioner graduation, as well as population focused study which matches the skills and knowledge required to care for the population of interest (AANP, 2021).

Cost

When examining the cost of expanding scope of practice for nurse practitioners, both prescription drug costs, and outpatient costs were 10.9% and 17% lower, respectively, in states where nurse practitioners had full scope of practice (Poghosyan, 2019). Similarly, there were patterns of lower cost of care utilized by Medicare beneficiaries across both outpatient and inpatient settings when provided by primary care nurse practitioners compared to primary care physicians, at 26% and 7%, respectively (Poghosyan, 2022). Research on overall cost effectiveness of nurse practitioners is significantly limited due to difficulty tracking nurse practitioner cost outcomes (Abraham et al., 2019). This is largely due to incident to physician billing, and salaried nurse practitioners, where relative value units (RVU) are difficult to capture (Abraham et al., 2019). Perhaps more importantly is the cost of decreased quality of life and poor health outcomes due to difficulty gaining access to healthcare, underscoring the need for increased primary care health providers.

As previously discussed, EO-CRC is often diagnosed at an advanced stage. Consequently, treatment for the disease often requires more significant usage of multimodality treatment, including extensive surgery to the abdomen and pelvis, chemotherapy and radiation (Bailey et al., 2015). The physical ramifications of such treatment can include urinary dysfunction and disorders of the perianal area. (Bailey et al., 2015). This, in turn, leads to significant decreases in quality of life, including impaired social relationships, diet intolerance, and difficulty working or traveling related to altered bowel habits (Bailey et al., 2015). Additionally, issues with sexual function and fertility, and the emotional impact of altered body image related to the presence of an ostomy may contribute to decreased quality of life (Blum-Barnett et al., 2019).

The employment and financial hardships associated with cancer related care in this age group includes loss or changes to health insurance and benefits, decreases in job performance, loss of earning potential and overall career trajectory (Barnett et al., 2019). Treatment cost for colorectal cancer has been identified as the second highest of any cancer in the United States, with $23.7 billion spent in medical services and $0.6 billion in prescription drugs (CDC, 2020). By increasing screening rates to 70%, it has been estimated that overall Medicare spending could be reduced by as much as $14 billion by the year 2050 (2020). When examining individual cost of colorectal cancer, the average cost of cancer care among payers has been cited anywhere from $20,000 to $100,000 in the first year after diagnosis, and between $1,000 and $30,000 thereafter, with out of pocket costs averaging 7–11% of the total cost (Pisu et al., 2018). The high cost of cancer care not only negatively impacts the patient, but their families as well, and frequently results in nonadherence to treatment, worsening of symptoms and overall decrease in quality of life (Pisu et al., 2018).

Recommendations

Improving access to colorectal cancer screening and healthcare in the Latino population in California requires an adequate work force and distribution of providers in their respective communities. Furthermore, it is evident that culturally congruent care and care that is free of implicit bias will be requisite for Latinos to obtain access to appropriate health care and recommendations for cancer screening. Further studies should examine nurse practitioner implicit bias training at the graduate education level, and expanding the current AB 1407 to include newly licensed and experienced nurse practitioners.

The removal of transition to practice hours for full practice authority for nurse practitioners will be crucial moving forward to address the shortage of primary care providers in underserved areas. This has previously been demonstrated in multiple states during the COVID-19 pandemic. Furthermore, nurse practitioner independent practice is supported by multiple large scale studies which consistently demonstrated that nurse practitioner outcomes were equal to or modestly better than that of physicians. Lastly, meeting with and educating opposition groups regarding nurse practitioner outcomes, including the American Medical Association and the American Society of Anesthesiologists, to promote partnerships and alliances in caring for vulnerable populations in California will be vital moving forward. This will require a shift in perspective. whereby education and training programs should not be comparison based, but rather patient outcome based, as hours of training and years of education do not necessarily translate into better patient outcomes.

Conclusion

The significant rise in EO-CRC among Latinos calls for the implementation of policies which strive to combat this phenomenon. Removing unnecessary transition to practice hour for Nurse Practitioner full practice authority will be paramount in removing barriers to life saving health screenings and access to care. To achieve this, engaging key stakeholders to impart the importance of the modification of this bill will be crucial to the success of the endeavor. Additionally, engaging with grassroots organizations serving the Latino community to help bring health disparities to the forefront will also be necessary. This can be achieved through social media colorectal screening awareness campaigns, and partnering with local and state government agencies, such as the California Department of Public Health, to provide events in Latino communities to ensure knowledge of the problem is well disseminated. With this comprehensive approach, nurse practitioners will be well positioned to provide accessible, equitable care to the Latino population in California.

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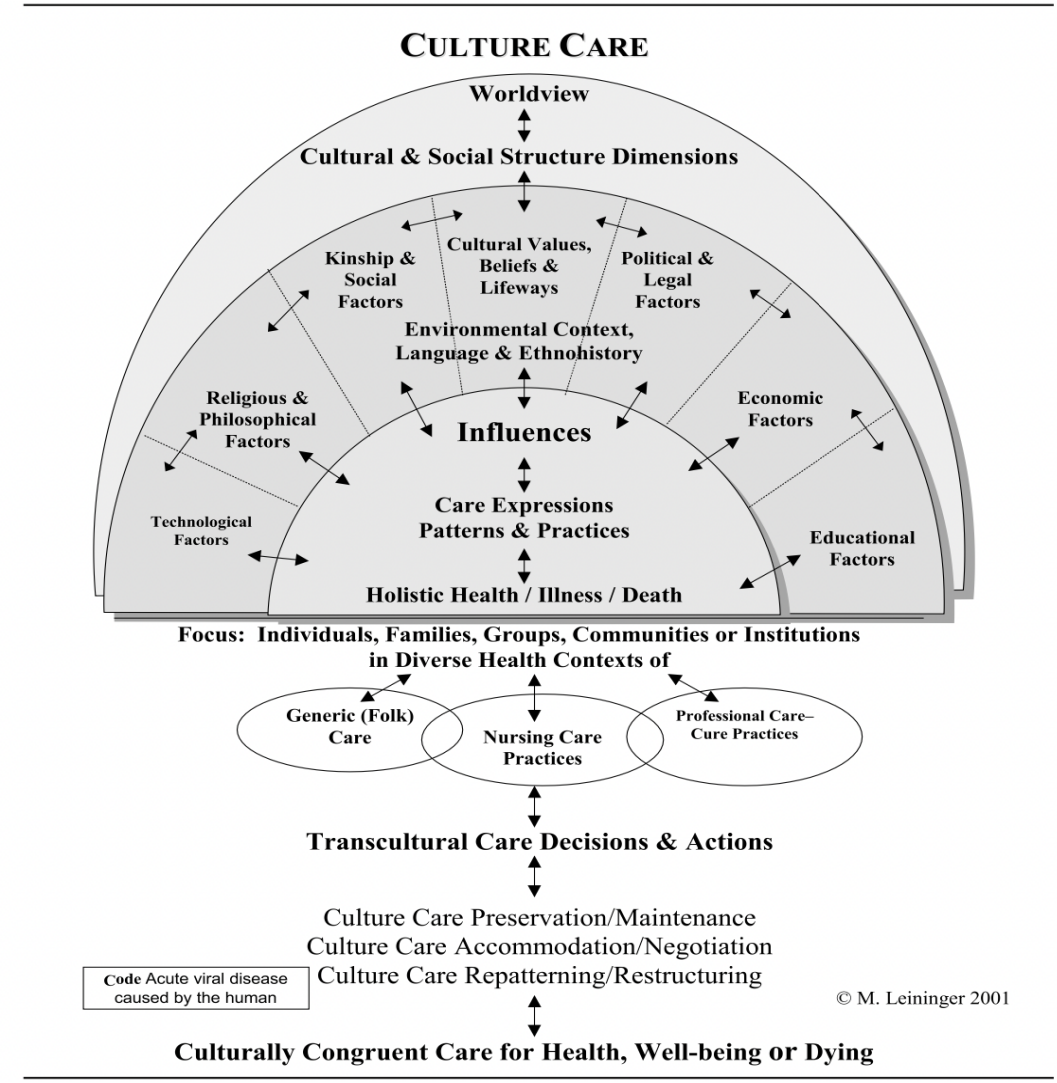
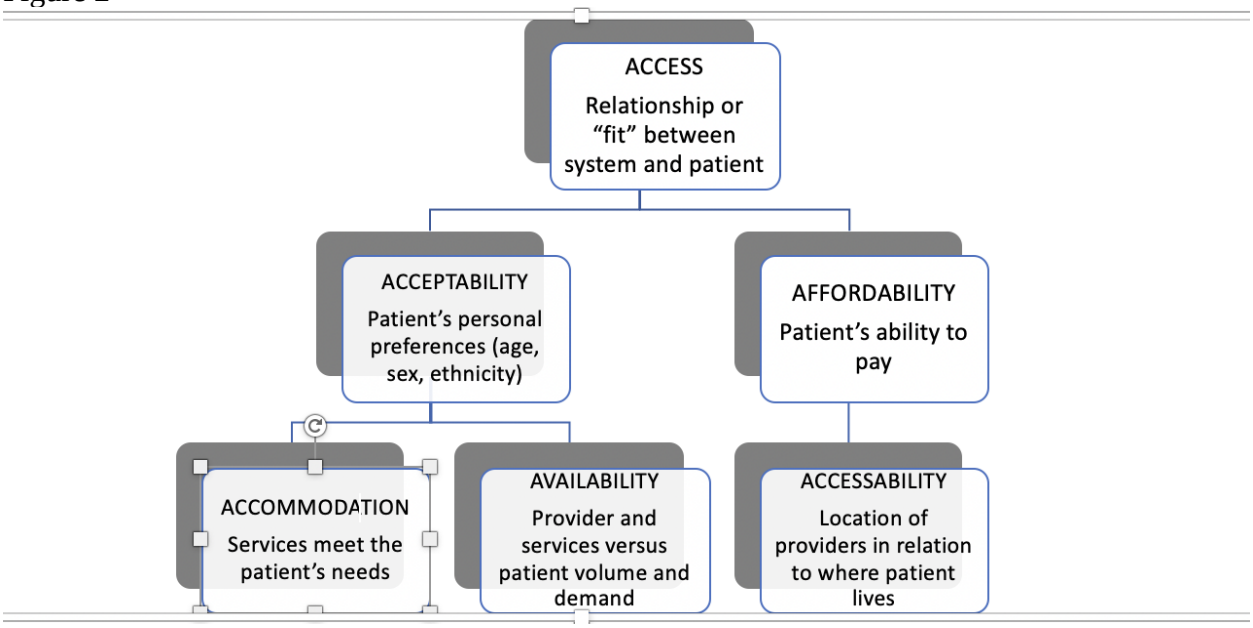
Figure 1



Leininger's culture care theory (Mcfarland & Wehbe-Alamah, 2002)

Figure 2



Penchansky & Thomas (1981)

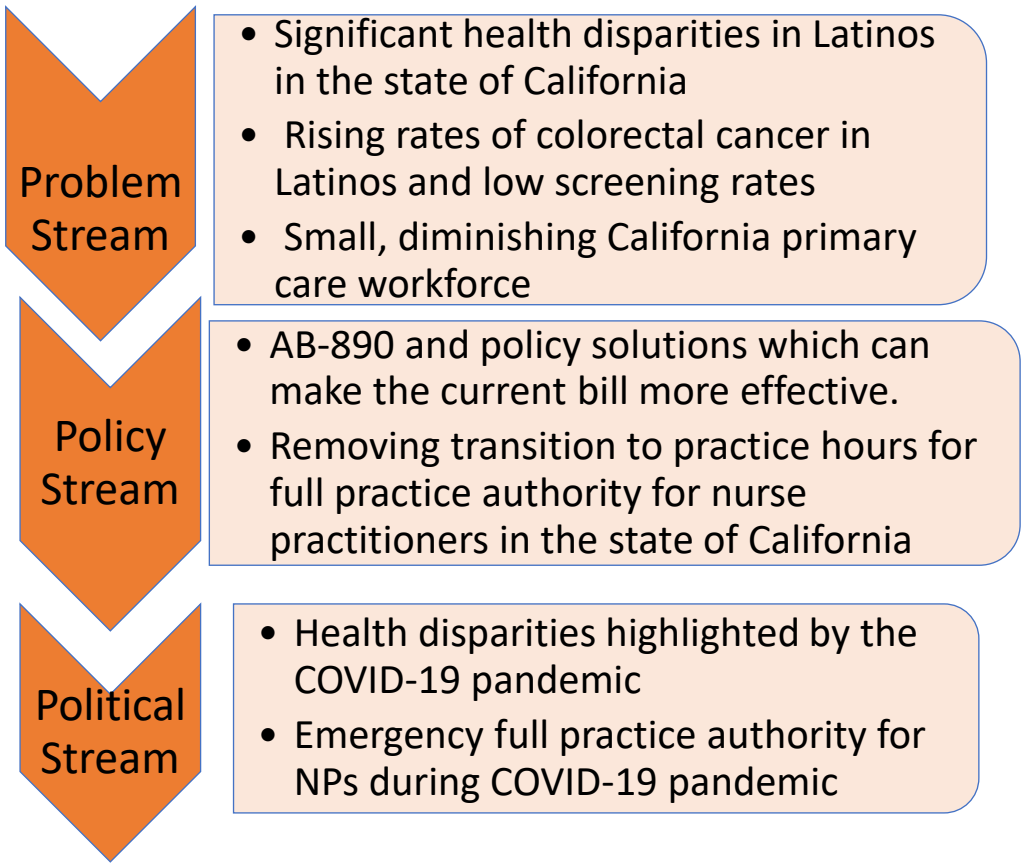


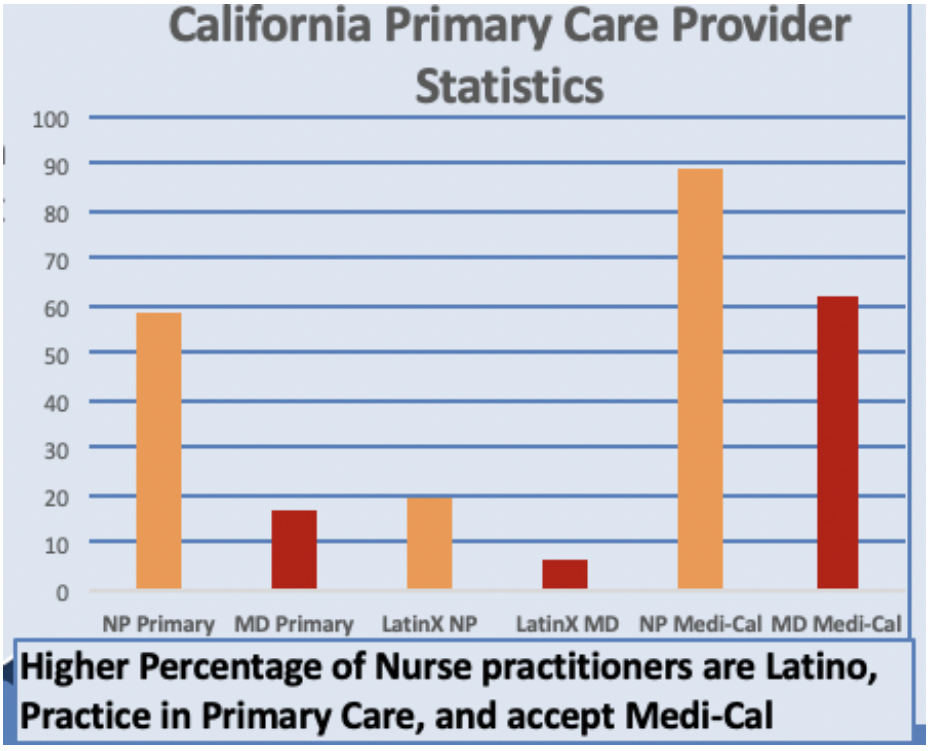
Figure 3 Kingdon's Policy Stream (1984)

Table 1

Stakeholder Impact Matrix

Organization	Financial	Members	Intensity	Unity	Total
American Medical Association	10 332,293,652	10 271, 760	9	9	38
California Association For Nurse Practitioners (CANP)	7 $1,300,000	8 4,300	10	10	35
American Nurses Association (ANA)	10 $32,000,000	8 ~170,00	8	8	34
Oncology Nursing Society (ONS)	8 $4, 500,000	8 35,000	8	9	33
Academy of Oncology Nurse and Patient Navigators (AONN)	8 $5,200,000	8 9,800	8	9	33

Table 2



California Health Care Foundation (2021b)

Appendix A Poster Presentation

Appendix B DNP Program Outcome Exemplars

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars Provide bulleted exemplars that demonstrates achievement of each objective
DNP Essential I: Scientific Underpinnings for Practice **NONPF: Scientific Foundation Competencies** *The scientific foundation of nursing practice has expanded and includes a focus on both the natural and social sciences including human biology, genomics, science of therapeutics, psychosocial sciences, as well as the science of complex organizational structures. In addition, philosophical, ethical, and historical issues inherent in the development of science create a context for the application of the natural and social sciences.*	**2.** Synthesize nursing and other scientific and ethical theories and concepts to create a foundation for advanced nursing practice.	**Fall 2021** • Incorporated the essentials and role of the Doctor of Nursing Practice in Healthcare (DNPC 630) • Explored the foundations of epidemiology evidence based practice in prevention of colorectal cancers (DNPC 625) • Completed Collaborative Institutional Training Initiative (CITI) Program (DNPC 611) **Spring 2022** • Constructed driver diagram for expanded access to oncology care (DNPC 626) • Selected and utilized the Iowa Model of Evidence Based Practice (DNPC 686) • Finalized IRB application Worksheet **Summer 2022** • Reflected on personal and clinical interchange/intersectionality using weekly journals, Kosha model (DNPC 610) **Fall 2022** • Applied political and ethical theories into a health policy brief regarding nurse practitioner implicit bias training (DNPC 648)

DNP Essential II: Organizational & System Leadership for Quality Improvement & Systems Thinking **NONPF: Leadership Competencies/Health Delivery System Competencies** *Advanced nursing practice includes an organizational and systems leadership component that emphasizes practice, ongoing improvement of health outcomes, and ensuring patient safety. Nurses should be prepared with sophisticated expertise in assessing organizations, identifying system's issues, and facilitating organization-wide changes in practice delivery. This also requires political skills, systems thinking, and the business and financial acumen needed for the analysis of practice quality and costs.*	**5.** Design, implement, and evaluate ethical health care delivery systems and information systems that meet societal needs and ensure accountability for quality outcomes.	**Fall 2021** • Learned to create a PICOT question to address a clinical problem (DNPC 611) • Implemented an evidence based project proposal to address perirectal complications in adult Leukemia patients (DNPC 611) **Spring 2022** • Utilized strategic planning management principles through the assessment of healthcare environments (DNPC 626) • Created a logic model with interventions and short term/long term evaluation planning (DNPC 686) • **Summer 2022** • Developed a business proposal to implement a disease specific oncology nurse navigator (DNPC 653) • Conducted health facility SWOT analysis, needs assessment (DNPC 653)

DNP Essential III: Clinical Scholarship & Analytical Methods for Evidence-Based Practice **NONPF: Quality Competencies/Practice Inquiry Competencies** *Scholarship and research are the hallmarks of doctoral education. Although basic research is viewed as the first and most essential form of scholarly activity, an enlarged perspective of scholarship has emerged through alternative paradigms that involve more than discovery of new knowledge. These paradigms recognize: (1) the scholarship of discovery and integration "reflects the investigative and synthesizing traditions of academic life"; (2) scholars give meaning to isolated facts and make connections across disciplines through the scholarship of integration; and (3) the scholar applies knowledge to solve a problem via the scholarship of application that involves the translation of research into practice and dissemination and integration of new knowledge.*	**4.** Incorporate research into practice through critical appraisal of existing evidence, evaluating practice outcomes, and developing evidence-based practice guidelines.	**Fall 2021** • Identified the best evidence for methods that can decrease perirectal skin complications in hospitalized leukemia patients undergoing treatment incorporating MeSH terms (DNPC 611) • Critically appraised the evidence examining feasibility, benefits and risks of new practice (DNPC 611) **Fall 2022** • Analyzed clinical risk assessment tool for the development of colorectal cancer (DNPC 622) • Conducted case study evaluation of acute lymphoblastic leukemia using evidence based practice literature (DNPC 622)
DNP Essential IV: Information Systems/Technology & Patient Care Technology for Improvement & Transformation of Health Care **NONPF: Technology & Information Literacy Competencies** *DNP graduates are distinguished by their abilities to use information systems/technology to support and improve patient care and health care systems, and provide leadership within health care systems and/or academic settings. Knowledge and skills related to information systems/technology and patient care technology prepare the DNP graduates apply new knowledge, manage individual and aggregate level information, and assess the efficacy of patient care technology appropriate to a specialized area of practice along with the design, selection, and use of information systems/technology to evaluate programs of care, outcomes of care, and care systems.*	**7.** Incorporate ethical, regulatory, and legal guidelines in the delivery of health care and the selection, use, and evaluation of information systems and patient care technology.	**Fall 2021** • Collaborated with EPIC EHR department at City of Hope **Spring 2023** • Completed IRB application for DNP project (DNPC 630) • Data analysis completed for Evidence Based Project (DNPC 630)

Information systems/technology provide a mechanism to apply budget and productivity tools, practice information systems and decision supports, and web-based learning or intervention tools to support and improve patient care.		
DNP Essential V: Health Care Policy for Advocacy in Health Care **NONPF: Policy Competencies** *Health care policy, whether created though governmental actions, institutional decision-making, or organizational standards, creates a framework that can facilitate or impede the delivery of health care services or the ability of the provider to engage in practice to address health care needs. Engagement in the process of policy development is central to creating a health care system that meets the needs of its constituents. Political activism and a commitment to policy development are central elements of DNP practice.*	**3.** Demonstrate leadership in collaborative efforts to develop and implement policies to improve health care delivery and outcomes at all levels of professional practice (institutional, local, state, regional, national, and/or international).	**Fall 2021** • Became a member of the California Association of Nurse Practitioners (CANP) South Bay Chapter **Spring 2022** • Delivered Powerpoint lecture to advanced practice providers across the institution regarding best practices for evaluating surgical oncological emergencies **Fall 2022** • Conducted literature review regarding early onset colorectal cancer in Latinos • Developed policy brief on Nurse Practitioners and Implicit Bias Training (DNPC 648) • Mentored and precepted new advanced practice clinician at my institution **Spring 2023** • DNP poster presentation to University of San Diego faculty and students
DNP Essential VI: Inter-professional Collaboration for Improving Patient & Population Health Outcomes **NONPF: Leadership Competencies** *Today's complex, multi-tiered health care environment depends on the contributions of highly skilled and knowledgeable individuals from multiple professions. In order to accomplish the IOM mandate for safe, timely,*	**1.** Demonstrate advanced levels of clinical practice within defined ethical, legal, and regulatory parameters in designing, implementing, and evaluating evidenced-based, culturally competent therapeutic interventions for individuals or aggregates.	**Fall 2021** • Disseminated evidence based literature review on colorectal cancer screening (DNPC 611) **Summer 2022** • Created journal narratives reflecting on culturally, patient centered, care (DNPC 610)

effective, efficient, equitable, and patient-centered care in this environment, health care professionals must function as highly collaborative teams. DNPs have advanced preparation in the interprofessional dimension of health care that enable them to facilitate collaborative team functioning and overcome impediments to interprofessional practice. DNP graduates have preparation in methods of effective team leadership and are prepared to play a central role in establishing interprofessional teams, participating in the work of the team, and assuming leadership of the team when appropriate.	**3.** Demonstrate leadership in collaborative efforts to develop and implement policies to improve health care delivery and outcomes at all levels of professional practice (institutional, local, state, regional, national, and/or international).	**Fall 2022** • Case presentation on Cervical Cancer, examining current research, gap analysis and future studies (DNPC, 622)
DNP Essential VII: Clinical Prevention & Population Health for Improving Nation's Health **NONPF: Leadership Competencies** *Consistent with national calls for action and with the longstanding focus on health promotion and disease prevention in nursing, the DNP graduate has a foundation in clinical prevention and population health. This foundation enables DNP graduates to analyze epidemiological, biostatistical, occupational, and environmental data in the development, implementation, and evaluation of clinical prevention and population.*	**6.** Employ a population health focus in the design, implementation, and evaluation of health care delivery systems that address primary, secondary, and tertiary levels of prevention.	**Fall 2021** • Created a screening program for reduction in colorectal cancer screening in young adults (DNPC 625) **Fall 2022** Designed Evidence Based Project to improve access to colorectal cancer screening in Latino communities in California

DNP Essential VIII: Advanced Nursing Practice **NONPF: Independent Practice/Ethics Competencies** *The increased knowledge and sophistication of health care has resulted in the growth of specialization in nursing to ensure competence in these highly complex areas of practice. The reality of the growth of specialization in nursing practice is that no individual can master all advanced roles and the requisite knowledge for enacting these roles. DNP programs provide preparation within distinct specialties that require expertise, advanced knowledge, and mastery in one area of nursing practice. A DNP graduate is prepared to practice in an area of specialization within the larger domain of nursing.*	**1**. Demonstrate advanced levels of clinical practice within defined ethical, legal, and regulatory parameters in designing, implementing, and evaluating evidence-based, culturally competent therapeutic interventions for individuals or aggregates.	**Fall 2021** Engaged in weekly colorectal surgery case discussion, including disease etiology, prevention, management approaches to complex patients **Fall 2022** Created EBP Stakeholder presentation **Spring 2023** Presented EBP poster presentation to students and faculty at USD Presented EBP project to stakeholders at institution Submitted request to present EBP findings at The California Board of Nursing Nurse Practitioner Advisory Committee Submitted abstract to American Journal of Nursing for consideration for manuscript publication

Appendix C Certificates

CITI PROGRAM

Completion Date 03-Oct-2021
Expiration Date 02-Oct-2024
Record ID 45320942

This is to certify that:

June Spilburg

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

Human Subjects Research - Biomed
(Curriculum Group)
Biomedical Research - Basic/Refresher
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

University of San Diego

CITI
Collaborative Institutional Training Initiative
101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?wf2c8574f-5a4c-4013-ba31-bb2e339b4489-45320942

CITI PROGRAM

Completion Date 09-Oct-2021
Expiration Date 08-Oct-2025
Record ID 45320943

This is to certify that:

June Spilburg

Not valid for renewal of certification through CME.

Has completed the following CITI Program course:

CITI Conflicts of Interest
(Curriculum Group)
Conflicts of Interest
(Course Learner Group)
2 - Stage 2
(Stage)

Under requirements set by:

University of San Diego

CITI
Collaborative Institutional Training Initiative

101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Verify at www.citiprogram.org/verify/?w273be43d-a717-4c46-8c19-2358fbe57286-45320943