Southern California CSU DNP Consortium

California State University, Fullerton
California State University, Long Beach
California State University, Los Angeles

GLOBAL SIGNATURE RECOGNITION FOR NURSE PRACTITIONERS IN CALIFORNIA

A DOCTORAL PROJECT

Submitted in Partial Fulfillment of the Requirements

For the degree of

DOCTOR OF NURSING PRACTICE

By

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ABSTRACT

There are differences in state laws and regulations that restrict nurse practitioners (NPs) from performing certain functions of patient care such as signature recognition. These restrictions create increased costs to the healthcare system and delays in patient care. In California, it has been a slow, incremental process for NPs to gain the ability to sign and/or certify forms that document and facilitate patient care. States are moving forward to ensure NP signatures are recognized either by updating language in their state laws and allowing NPs to sign specific forms or adopting statutes that provide NPs with global signature recognition. A Policy Delphi approach was used as a roadmap to guide the analysis of global signature recognition for NPs in California. Three iterative rounds of surveys were conducted using a Qualtrics survey platform. A total of 22 themes were generated, with participants reaching consensus on eight of the themes. Of the remaining themes, four over-arching opposing viewpoints were related to barriers to NP practice, the effect on physicians, education, and cost. The roadmap to action must address these opposing views if NPs are to achieve global signature recognition in California.

Keywords: nurse practitioner, signature authority, signature recognition, full practice authority, scope of practice, increase access, barriers to care

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Background

According to the American Association of Nurse Practitioners (AANP), nurse practitioners (NPs) treat millions of patients every year. In the majority of states, however, inefficiencies occur when NPs are barred from executing standard, routine documents to secure the satisfaction of orders, transfers, or acknowledgement of care such as death certificates, disability forms, parking permits, physical therapy, Do-Not-Resuscitate (DNR), and end-of-life planning and treatment forms such as Physician Orders for Life-Sustaining Treatment (POLST) (AANP, 2020). The ability of the NP to execute such services varies from state-to-state. According to AANP, some state laws and policies include language prohibiting companies and agencies from recognizing a form with an NP signature, creating unnecessary limitations and resulting in inefficiencies and costly delays in patient care. The Campaign for Action (2018) found that the restrictions on NP practice create barriers to care and result in steep costs to consumers. Fortunately, some states are moving forward to ensure signatures of NPs are recognized either by updating the language in their state laws and allowing NPs to sign specific forms or adopting statutes that provide NPs with global signature recognition (AANP, 2018).

AANP refers to signature recognition as "state laws that authorize nurse practitioners to sign or otherwise complete forms related to patient care within their scope of practice" (AANP, 2018). According to AANP (2021), there are fifteen states and the District of Columbia that have signature recognition laws.

Problem Statement

NPs in California do not have global signature recognition. It has been a slow, incremental process for NPs to gain the ability to sign and/or certify forms that document and facilitate patient care in California. In 1999, NPs obtained the ability to sign for sample

medications. It has taken another twenty years to obtain legislative achievements to authorize forms such as Department of Motor Vehicle (DMV) physicals, disability and disability placards, durable medical equipment (DME), and Physician Orders for Life-Sustaining Treatment (POLST) (California Association for Nurse Practitioners, 2015). In 2019, legislative action granted NPs the authority to certify the need for their hearing-impaired patients to receive a telecommunications device and participate in the California Deaf and Disabled Telecommunications Program (DDTP) (California Legislative Information, 2019). The updated language in this bill with the addition of NPs certified to order this device will improve the access to the DDTP for this vulnerable population. To address the challenges of outdated legislation and to advocate for care that is more effective and streamlined in its delivery, states are actively moving to enact legislation that establishes the recognition of NP signatures (AANP, 2018).

Purpose Statement

The purpose of this policy analysis was to develop a roadmap to action using a Delphi technique to support legislation for global signature recognition for NPs in California. The anticipated outcomes resulting from legalizing global signature recognition for NPs are improved efficiency of care delivery and increased access to care for all Californians.

Theoretical Framework

One of the oldest social science theories, regarded as a valuable change model, is Everett Rogers' Diffusion of Innovations Theory. This model has been used to guide the adoption and acceptance of an innovation, such as an idea, practice, philosophy, or behavior (Kaminski, 2011). The importance of communication and peer networking is emphasized as the innovation gains momentum and diffuses or spreads through a population (Rogers, 2003, p. 18). Rogers (2003, p.

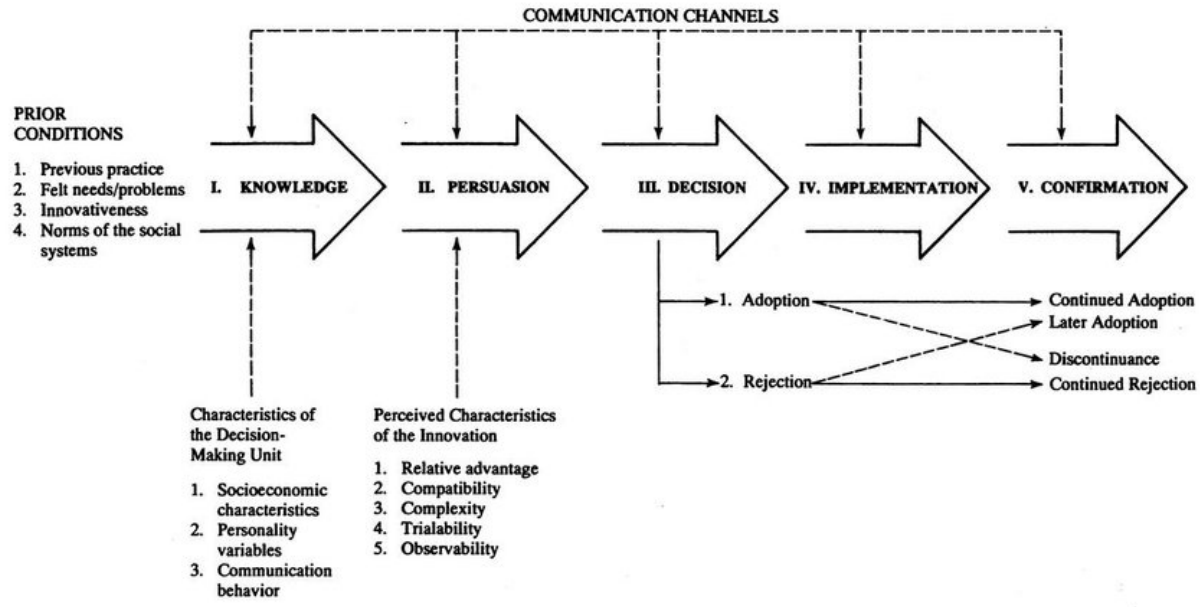
5) defines diffusion as “the process by which an innovation is communicated through certain channels over time among members of a social system.” For diffusion to be possible, the person(s) must perceive the innovation as new and adopt its use (Kaminski, 2011).

The success of diffusion of an innovation, such as global signature recognition, depends on several factors: the individuals involved, the innovation itself, and the organization which can influence decisions made about the issue in terms of perceived value, significance, and the urgency to respond (Bowen & Zwi, 2005). Rogers’ theory has been used to gain a better understanding of the forces at work in transferring knowledge into practice and into health policy (Dobbins et al., 2002). Rogers’ Diffusion of Innovation Theoretical Framework was used for this project, providing the foundation to guide the roadmap to support legislation for global signature recognition in California.

Rogers’ theoretical framework uses a five-stage innovation-decision process model: knowledge, persuasion, decision, implementation, and confirmation. (Figure 1). *Knowledge* occurs when an individual/organization becomes aware of an innovation and is followed by the *persuasion* stage (Mohammadi et al., 2018). The individual/organization seeks more information from those who have adopted the innovation and the consequences of adoption or rejection of the innovation are identified (Dobbins et al., 2002). If the experience is positive for others, the motivation to adopt increases (Dobbins et al., 2002). For the *decision* stage to occur, individuals and organizations must be involved in various decision-making activities in order to make a determination to either adopt or reject the innovation (Dobbins et al., 2002). If the decision is to adopt the innovation, the individual/organization will enter the *implementation* and *confirmation* stages, engaging in activities and strategies to make full use of the innovation.

Figure 1

A Model of Five Stages in the Innovation-Decision Process



Note. The innovation-decision process is the process through which an individual (or other decision-making units) passes from knowledge of an innovation to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision. From Diffusion of Innovations, 5E by Everett M. Rogers. Copyright © 1995, 2003 by Everett M. Rogers. Copyright © 1962, 1971, 1983 by The Free Press, a Division of Simon & Schuster, Inc. All rights reserved. (See Appendix A).

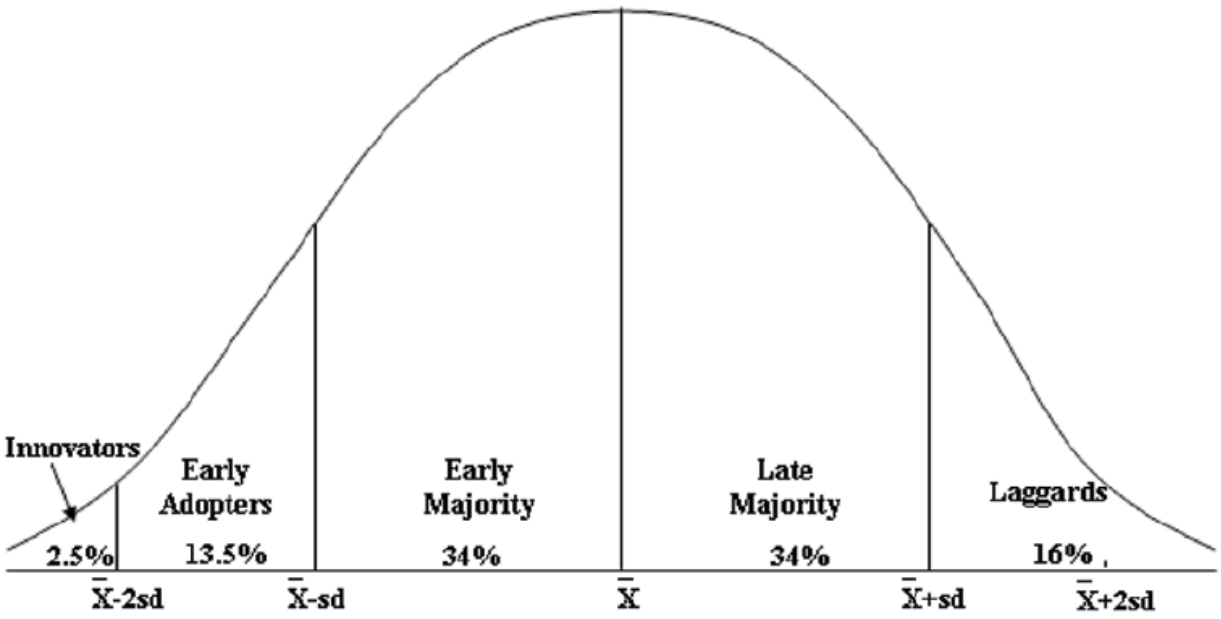
Five characteristics or attributes are used to assess the advantages and disadvantages of the innovation and the rate at which an innovation may be adopted (Dobbins et al., 2002). *Relative advantage* is the degree to which an innovation is perceived as favorable (Rogers, 2003, p. 15). The perceived *compatibility* of an innovation is dependent on prior experiences and knowledge and how it fits with current values (Rogers, 2003, p. 15). A high degree of *complexity* is a barrier to adoption, whereas the easier the innovation is to understand and use the sooner it is adopted (Dobbins et al., 2002). *Trialability* is the extent to which the innovation is reversible or can be tried on a small scale (Dearing & Cox, 2018). *Observability* is the extent to which patient

outcomes, satisfaction, cost, efficiency, and allocation of resources can be seen (Dearing & Cox., 2018).

Individuals within a group do not simultaneously adopt an innovation, but do so gradually over a period of time with some individuals adopting new innovations earlier than others (Rogers, 2003, P. 267) (Figure 2). Those who see the innovation as compatible with their personal and organizational values are more likely to adopt (Bowen & Zwi, 2005). A "bandwagon effect" may occur between organizations that are close to each other in their values or communication networks, as they will most likely adopt innovations when other organizations have adopted innovations (Bowen & Zwi, 2005).

Figure 2

Adopter Categorization on the Basis of Innovativeness



Note. The innovativeness dimension, as measured by the time at which an individual adopts an innovation or innovations, is continuous. The innovativeness variable is partitioned into five adopter categories by laying off standard deviations (sd) from the average time of adoption ($\bar{x}$). (Rogers, 2013) from Diffusion of Innovations, 5E by Everett M. Rogers. Copyright © 1995, 2003 by Everett M. Rogers. Copyright © 1962, 1971, 1983 by The Free Press, a Division of Simon & Schuster, Inc. All rights reserved. (See Appendix A).

Innovators are the first to adopt the innovation. They are adventurous and curious about new ideas, are most favorable to change, tend to be part of a highly interconnected social system, and are considered the gatekeepers (Bowen & Zwi, 2005). *Early adopters* are the opinion leaders and role models, respected by their peers. They decrease uncertainty about an innovation and communicate an evaluation of the innovation to their peers, triggering a critical mass when they adopt an innovation (Rogers, 2003, p. 283). The *early majority* provide interconnectedness but seldom lead. They are very deliberate, know change is necessary, and are comfortable adopting new ideas before the average person (Rogers, 2003, p. 283-284). The *late majority* tend to be skeptical and cautious, are often influenced by increasing peer or social pressure (Rogers, 2003, p. 284). The *laggards* are traditional, tend to be isolated, suspicious of innovations, and resistant to change. If they adopt an innovation, they must be certain it will not fail (Rogers, 2003, p. 284).

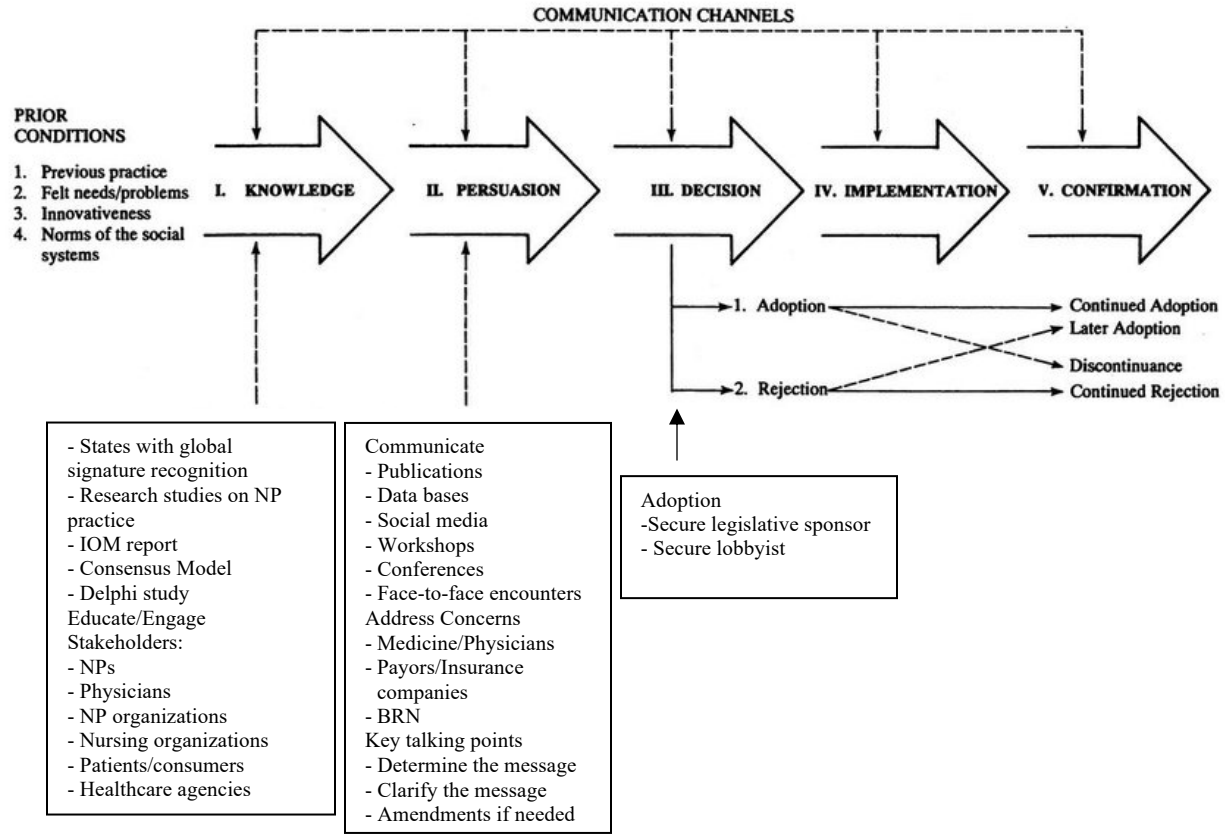
The roadmap for this project will begin with the AANP definition of global signature recognition: "When any provision of the general or public law, or regulation requires a signature, certification, stamp, verification, affidavit or endorsement by a physician, it shall be deemed to include a signature, certification, stamp, verification, affidavit or endorsement by a certified registered nurse practitioner; provided, however, that nothing in this section shall be construed to expand the scope of practice of nurse practitioners." (AANP, 2018). Rogers' Diffusion of Innovation and his 5-stage innovation-decision process model has direct applicability to the goal of adopting global signature recognition for NPs in California.

The process would begin by sharing the knowledge of what global signature recognition means and persuading our NP colleagues, including faculty, physicians, and NP state organizations, on the benefits of this innovation by improving the efficiency of care delivery and access to care for patients. The next step is to engage in activities to communicate and promote

the benefits of global signature recognition. Conduits of communication used to convey information may include research publications, databases, attendance at workshops/conferences, visits by interest groups, mass media in the form of videos, radio, newspaper, television, and social media. However, the most effective and powerful form of communication is through interpersonal communication, sharing the "personal story" with colleagues, friends, employers, and most importantly, legislators. The face-to-face communication allows for personal discussion and provides the opportunity for the advocate to tailor the information to the recipient's interests, wants, or needs (Sanson-Fisher, 2004).

Figure 3

Adaptation of Model of Five Stages in the Innovation-Decision Process for Policy Analysis



Note. The innovation-decision process as it relates to the policy analysis of Global Signature Recognition for Nurse Practitioners in California.

The five groups within the social system described by Rogers (2003) innovators, early adopters, early majority, late majority, and laggards can be found among several groups including advanced practice registered nurses (APRNs), patients/consumers, healthcare professionals, physicians, employers, institutions, and governmental agencies. The healthcare system has a hierarchal, bureaucratic model consisting of separate organizations for each profession that can hinder change (Sanso-Fisher, 2004). The characteristics of individuals, organizations, and social and political environments can also influence decision-making and the diffusion of ideas (Bowen & Zwi, 2005). Applying the principles of Rogers' Diffusion of Innovation Theory provided the guidance for this project to understand how ideas are spread, decisions are made, a policy is developed, and the capacity required to effectively adopt innovations to maximize efforts and achieve positive outcomes for our patients.

Review of Literature

A literature search was conducted using the electronic databases PubMed, CINAHL, Google Scholar, and a bill tracking database, the National Conference of State Legislatures. Search terms and combinations of terms included “nurse practitioner,” “signature authority,” “signature recognition,” “signature,” “full practice authority,” “scope of practice,” “increase access,” “and barriers to care.” A search was also conducted of specific laws, statutes, and regulations passed in each of the fifteen states and District of Columbia that has passed global signature recognition for NPs. A search for the terms associated with the analogous changes in scope of practice related to signature recognition included do-not-resuscitate, death certificates, workers compensation, durable medical equipment, Physician Orders for Life-Sustaining Treatment (POLST), Medical Orders for Scope of Treatment (MOST), physical therapy, parking permits, and disability.

The search included scholarly articles, seminal reports, and grey literature, with a large date range of 2000 to 2020. Search limitations were Advance Practice Nursing, English language, and the geographic subset of the United States.

Background

Due to the expansion in the numbers and the capabilities of APRNs, and the increase in demand for healthcare services, the National Council of State Boards of Nursing (NCSBN) in collaboration with forty nursing organizations, developed the APRN Consensus Model in 2008 (State Boards of Nursing APRN Advisory E Committee, 2008). This model streamlines and standardizes state regulations around the APRN roles, providing a framework in aligning APRN licensure, accreditation, certification, and education (Clark, 2011). State boards of nursing have the authority to interpret and enforce scope of practice for APRNs with the expectation to enable

them to practice to the full extent of their education, training, and licensure (State Boards of Nursing APRN Advisory E Committee, 2008).

In 2008, the Robert Wood Johnson Foundation partnered with the Institute of Medicine (IOM) to evaluate and transform the largest segment of the healthcare workforce - the nursing profession. Released in 2011, the Institute of Medicine (IOM) report, *The Future of Nursing: Leading Change, Advancing Health*, was an examination of the nursing workforce and its potential to bridge the gaps that existed in healthcare and coordinate care to a wide range of patients. One of the recommendations of this report is that nurses should practice to the full extent of their education and training (IOM, 2011, p. 5). Unfortunately, regulatory barriers continue to exist which limits this transformation for NPs.

The NP scope-of-practice is regulated by the state, and these regulations vary by each state. The AANP divides these practice environments into three categories: *Full Practice*, *Reduced Practice*, and *Restricted Practice* (AANP, 2019b). Full practice is the model defined by the IOM report and supported by the National Council of State Boards of Nursing (Martin & Alexander, 2019). This practice environment allows NPs to provide the full scope of health services they are educated and trained to provide without physician oversight and under the authority of the state board of nursing (Campaign for Action, 2017). Reduced practice is defined by the AANP (2019b), as one that requires an NP to work under a collaborative agreement with another healthcare provider and limits the setting of one or more elements of NP practice. Restricted practice requires supervision, delegation, or management by another health provider for the NP to provide care (AANP, 2019b).

Working in full or reduced practice authority states does not resolve all barriers for NPs (Hudspeth & Klein, 2019). There are differences in state laws and regulations that control and

restrict NPs from performing certain functions of patient care such as signature recognition (Hudspeth & Klein, 2019). To add to the complexity, states with restricted practice may grant signature recognition to NPs (Louie, 2020). Signature recognition restrictions faced by NPs may include the inability to refer, certify or sign various forms such as worker's compensation; proof of disability for parking permits; excuse from jury service; sports physicals; death certificates; do-not-resuscitate directives; physical therapy; durable medical equipment; school physicals and forms; disability benefits; birth certificates; Provider Orders for Life-Sustaining Treatment (POLST), Medical Orders for Life-Sustaining Treatment (MOLST), or Medical Order Scope of Treatment (MOST) forms; school physicals and forms, including the need for home-bound schooling; alcohol/drug treatment involuntary commitment; psychiatric emergency commitment; and hospice care. The 2001 IOM report, *Crossing the Chasm: A New Health System for the 21st Century*, describes this practice environment as "inconsistent, contradictory, duplicative, outdated, and counter to best practices" (Safriet, 2011, page 11).

Requiring the involvement of two healthcare providers to sign one form increases costs to the healthcare system, delays in patient care, and lost productivity (AANP, 2020). To address these obstacles, several states have taken steps to recognize NP signatures on various forms. According to the AANP (2020), thirty-two states and Washington D.C. authorize NPs to sign POLST forms, twelve states have no formal POLST form in statute or regulation, and six states do not authorize NPs to sign the form; thirty-three states and Washington D.C. authorize NPs to sign death certificates, four states limit the ability for NPs to sign, and thirteen states do not allow NPs to sign the certificates; forty-eight states authorize NPs to provide proof of disability for parking placards, two states do not authorize NPs to provide this proof.

In 2004, the state of Washington passed legislation allowing NPs to serve as providers

for injured workers in the state workers' compensation system (Sears et al., 2008). A natural experiment using a pre-post design found an improvement in provider availability, especially in the rural areas, and timely accident report filing (a 16-percentage point improvement), which improved health outcomes for injured state workers and system costs (Sears et al., 2008).

In 2011, New York and North Carolina passed legislation authorizing NPs to sign death certificates. The North Carolina Medical Board had received reports of families waiting several weeks for a physician to certify the death of a loved one. This creates unnecessary delays and complications with funeral arrangements, estate proceedings, and other legal and personal matters (Kirby, 2013). Authorizing NPs to sign death certificates reduces delays in getting completed certificates to the decedent's family.

In 2016, legislation in West Virginia enacted legislation that removed regulatory barriers on NP signature authority to allow NPs to sign Physician Orders for Scope of Treatment (POST) forms (Constantine et al., 2018). Two years later, a retrospective, observational study examined the impact of this legislation. The study showed forty-five NPs submitted 430 POST forms (14.4%), which demonstrated that even a small number of NPs can have an impact on decreasing hospitalizations and increasing hospice enrollment (Constantine, et al., 2018).

A few states have taken a broader, or global, approach to creating statues authorizing NPs to sign, attest, certify, stamp, verify, endorse, or provide an affidavit for any form that a physician can do, provided it is within the NPs scope of practice (AANP, 2018). This approach addresses the challenge of outdated language that is not realized until an NP needs to certify, for example, a telecommunication device for his or her patient. These signature recognition laws increase transparency and accountability, provide efficient patient care delivery, promote the productive use of the health care workforce, and prevent delays and unnecessary costs (AANP,

2020).

There are fifteen states plus Washington D.C. that have broad-based signature recognition laws: Colorado, Georgia, Hawaii, Idaho, Maine, Massachusetts, Montana, Nevada, New Mexico, North Carolina, Rhode Island, Vermont, Virginia, Washington, and Wyoming (AANP, 2020). The signature laws in these states are in alignment with the recommendations from major policy organizations such as the IOM, National Governors Association, National Conference of State Legislatures, and the Federal Trade Commission (AANP, 2021).

A few states recognize NPs' ability to sign all forms within their scope of practice by including them in each relevant statute or rule (AANP, 2020). This line-item approach requires states to return for additional legislation to authorize NP signature recognition in each statue. Most states have hundreds of statues relating to health care forms and drafting a bill to cover all of the statues would require a very lengthy, intensive process (AANP, 2020).

Many states, such as California (CA), have taken incremental legislative steps to update language on each form. However, CA remains one of thirteen states in the nation with a regulatory structure that restricts NPs' practice (AANP, 2019b), including the lack of a global approach to signature recognition. This further limits NPs' ability to provide the most optimal care to the patients they serve.

Landscape

Socioeconomic factors are important to consider and surround many issues, such as legalizing global signature recognition in CA. In 2014, the Federal Trade Commission's (FTC) report, "Competition and the Regulation of Advanced Practice Nurses," cited restrictions to NP practice that negatively impacts access to healthcare services, results in higher healthcare costs, diminished quality of care, and the adoption of fewer new methods in the delivery of health care

(FTC, 2014). These restrictions reduce competition and a free marketplace. A state's political climate and interest in reducing costs and improving access to affordable quality health care can be the driving force for moving an issue forward (Smith et al, 2019).

Building a coalition and partnering with a range of stakeholders is essential to the success of passing legislation for global signature recognition. Engaging nursing professionals, including all advanced practice registered nurses (APRN) groups and their organizations, at both the state and national level, as well as stakeholders from non-nursing sectors is imperative (Myers & Alliman, 2018). The collaboration and relationship of the nursing groups can lead to a centralized source for the development and dissemination of clear, consistent messaging (Mathews, et al., 2010). Gaining the support of key stakeholders outside of nursing, and building on those relationships, leads to consensus building and success. These stakeholders include, but are not limited to, those in business and industry, consumer groups, healthcare organizations, insurance carriers, educators, government agencies, and healthcare providers from other disciplines.

The messaging must be patient-focused and include outcome evidence of the high quality of care and the improvement in access to the care NPs provide (Smith et al., 2019). However, the evidence must be translated into an effective, simple, and straightforward message that resonates and motivates the stakeholders to act (Myers & Alliman, 2018). Consistent talking points using handouts, publications, social media, presentations at conferences and workshops, letter-writing campaigns, and face-to-face encounters should be tailored to specific audiences and widely available for all advocates (Myers & Alliman, 2018). Personal patient stories are powerful and make the most impact because they are similar to witness testimony (Myers & Alliman, 2018). The stories that focus on improving health, increasing access to care, and accounts of barriers

NPs face in providing that care have been most effective (Myers & Alliman, 2018). Managing communication is essential to maintain momentum and engagement (VanBeuge & Walker, 2014).

Methods

The purpose of this policy analysis was to develop a roadmap to action using a Delphi technique to support legislation for global signature recognition for NPs in California. The traditional Delphi technique uses the philosophy of the Lockean Inquiry System, which uses the opinions and judgments of a group of like-minded experts who exchange views and solicit opinions on a particular subject with the aim of generating consensus (Manley, 2013). The Policy Delphi, used in this analysis, is based on the philosophy of the Kantian Inquiry System, which holds that to apply oneself to an issue, one must first consider and understand all other possible approaches, solutions, and ideas related to the issue (Manley, 2013). It takes a variety of experts within different, but related, disciplines, with their differing viewpoints and opinions (both pro and con arguments) to ensure that all possible options and alternatives are considered (Turoff, 2002).

Project Design

A Policy Delphi is designed to allow participants to freely express their statements, arguments, comments, and discussion around an issue, such as global signature recognition for NPs in California. It is necessary to evaluate the ideas expressed by the participants in four areas of this issue: desirability (benefits), feasibility (practicality), importance (relevance), and confidence (validity of the argument or risk of being wrong) (Turoff, 2002). This type of communication process may expose other options, determine the initial position on the issue, explore and obtain reasons for disagreement as well as evaluate the underlying reasons for the disagreement, and re-evaluate other options (Baker & Moon, 2010).

The Delphi technique is a process involving repeated rounds of a survey instrument given to a selected group of participants. The responses from the first round are analyzed, summarized,

and developed into the next round of surveys. An ideal Policy Delphi is carried out in a three-round format (Turoff, 2002). To maintain a three-round format, the following three procedures should be utilized: the issue must be carefully formulated, a list with a range of options should be provided, yet which also allows respondents to add options to the list, and participants should be asked for their positions and underlying assumptions on the issue (Turoff, 2002).

A great deal of thought and preparation is required before the launch of the first survey, or round one (Manley, 2013). Four key principles of a Policy Delphi must be adhered to, the development of which can be very time consuming: anonymity, asynchronicity, controlled feedback, and statistical response (Turoff, 2002). The a*nonymity* of the participants' responses ensures other participants do not know the identity of the responder and allows for candid responses; *asynchronicity* provides options to participants on how they choose to take part in and to complete the Delphi surveys (electronically, or by print and mailed versions); *controlled feedback* provides background information on the results of one round of questions and operational criteria to create the next round; and *statistical response* takes the viewpoints and opinions of the participants and converts them into quantitative data (Baker & Moon, 2010).

For this project, the initial survey (round one) included collecting background information on global signature recognition for NPs legislated in other states in comparison to the incremental legislative changes passed in California, which is creating unnecessary limitations, and resulting in inefficiencies and costly delays in patient care. Round one also included operational criteria to keep the participants on task and the burden of responding manageable. An analysis of the participants' comments was interpreted, coded and analyzed, based on the main idea of the comment and its usability and its redundancy (Manley, 2010).

Based on the responses in round one, the second round reported the results from the first

round and delved into the topic to clarify specific comments for effect and relevance (Manley, 2010). Round three reported the results of the first two rounds, and allowed the participants to review the other participants' ratings of relevancy and effect, as well as the comments, allowing participants to change their viewpoints and opinions (Manley, 2010). The participants indicated their confidence about and opinion of the desirability (benefits), feasibility and importance of the supporting arguments and provided a comment/rationale for their choices relevant to global signature recognition. The summary of round three provided a degree to which differences existed and where agreement was reached.

Although most Policy Delphi pursuits try to maintain a three-round format limit, additional rounds of surveys may be needed. This is dependent on new information that may be raised by the participants, the need to explore the range of opinions or positions on the issue, exploring, obtaining and evaluating the reasons for disagreements, and reevaluating the available options (Turoff, 2002). For this policy analysis, the Policy Delphi was completed in a three-round format. (See Appendix B).

Participants

In a Policy Delphi, participants are not recruited for their expertise, but for their heterogeneity (de Loe et al, 2016). For a Policy Delphi, it is recommended to have ten to fifty participants (Turoff, 2002). The target sample size for this project was originally a minimum of ten participants who would participate in all of the survey rounds. However, to account for attrition, a total of thirty-three participants were recruited. Purposive sampling was initially used, followed by the use of snowball sampling to increase the number of potential participants. Subsequent rounds of questionnaires were sent to participants who answered the previous round. The inclusion criteria for this policy analysis included members of the following professions:

individuals who are currently working in the clinical setting in California including NPs, physicians, and healthcare nursing administrators; nursing faculty; nursing organizations and agencies; stakeholders outside of health care residing in California; and members of the current California State Assembly and/or Senate. The exclusion criteria for this analysis include healthcare professionals not included in the inclusion criteria and members of Congress.

Ethical Considerations

The Institutional Review Board (IRB) from the California State University, Long Beach (CSULB) approved this project. An Addendum/Modification was received and approved by the IRB from CSULB prior to the distribution of the round-2 and round-3 surveys. Participants were sent a cover letter informing them about this policy analysis project. Responding to the survey was regarded as consent to participate. Anonymity was maintained to minimize outside influences on participants' responses.

Setting

Surveys were sent electronically via email to each participant's home or workplace. Participants determined how they wished to receive the surveys (electronically or by print), and where the surveys would be received (home or workplace).

Measures

The online survey platform, Qualtrics, was used for this project. The first survey consisted of open-ended questions. These questions solicited respondents' perceived benefits, risks, limitations and challenges in obtaining global signature recognition; recommendations to address the risks, limitations, and challenges; and the positive and negative impact of global signature recognition on patients, practice, and the delivery of health care in California.

At the end of the first round, participants submitted their completed questionnaires and comments. The comments were interpreted, coded and presented as themes that emerged from the free-text responses. Manley (2010) states depending on the number of comments in the first round, the Likert scale would be used in the second, third and possibly subsequent rounds to measure and evaluate the relevance (relevant, neutral, irrelevant) and effect (positive, neutral, negative) as defined by the participant's perceived impact of the consequence. These subsequent rounds would also report the results from the previous rounds and provide clarification and organization.

The second survey round presented the themes that emerged from the first round. Also presented were the percentages of responses that fell into each theme. The purpose of the second round was to clarify and evaluate the relevance of the themes that emerged. Using a five-point Likert scale, each participant was asked to indicate their opinion regarding the relevance of each theme (very relevant, relevant, irrelevant, very irrelevant, or unsure), and to provide a free-text comment or rationale for their choices. Depending on the selection of the participant's response, additional questions were posed asking for clarification.

According to Turoff (2002), the comments should be interpreted and coded based on the four scales or dimensions with their specific subsets: *desirability*: very desirable, desirable, undesirable, and very undesirable; *feasibility*: definitely feasible, possibly feasible, possibly unfeasible, and definitely unfeasible; *importance*: very important, important, slightly important, and unimportant; and *confidence*: certain, reliable, risky, and unreliable. A fifth scale representing a neutral position, such as "I don't know" or "Unsure," may be included. However, participants should be encouraged to think through the issue so a non-neutral position is not taken.

The third survey round presented the relevancy of each theme as perceived by each participant. Also presented were the free-text responses and comments to the questions asking for clarification. Allowing the participants to review the results of the previous rounds and verify their comments is important for accuracy testing (de Loe et al, 2016). The purpose of the third round was to determine the desirability or benefits, feasibility, importance, and confidence of the supporting arguments for global signature recognition for nurse practitioners in California. Using a 5-point Likert scale, each participant was asked to indicate their opinion regarding these components and to provide a comment/rationale for their choices. (See Appendix E).

Evaluation

The data for this Policy Delphi were collected using surveys that resulted in qualitative and quantitative data. The number of responses and non-responses were tracked. The data were coded using integers or whole numbers to represent quantitative responses using the 5-point Likert scale. Throughout this process, relationships, patterns, themes, concepts, and ideas among the answers to the open-ended questions were classified based on the Likert scale responses. The final results are shared and displayed in stacked bar graph formats. (Appendices C and D).

The Policy Delphi method revealed the perspectives, concerns of the participants, and identified points of agreement and disagreement on the issue of global signature recognition for NPs in California. The information gained will be used to address the concerns, and provide considerations for decision-making, in moving forward with potential legislation. The results of this policy analysis and roadmap to action using the Policy Delphi technique will be shared with the Executive Committee of the California Association for Nurse Practitioners to gain their support for global signature recognition for NPs in California. Using the AANP definition of global signature recognition would garner support from the national NP association, creating a

strong alliance in moving this legislation forward. The roadmap for this project will end as it began, with the AANP (2018) definition of global signature recognition: “When any provision of the general or public law, or regulation requires a signature, certification, stamp, verification, affidavit or endorsement by a physician, it shall be deemed to include a signature, certification, stamp, verification, affidavit or endorsement by a certified registered nurse practitioner; provided, however, that nothing in this section shall be construed to expand the scope of practice of nurse practitioners.”

Discussion

A manuscript including the project results, discussion, recommendations, limitations, and conclusion was created to be submitted to *The Journal for Nurse Practitioners*, a peer-reviewed journal focusing on shaping policy and improving practice. Specific manuscript preparation guidelines provided by the journal were followed. *The Journal for Nurse Practitioners* publishes original manuscripts to help nurse practitioners excel as providers of primary and acute care across the lifespan. *The Journal for Nurse Practitioners* supports advocacy by demonstrating the role that policy plays in shaping practice and delivering outcomes. The submitted manuscript is located in Appendix E. Authors' guidelines provided by *The Journal for Nurse Practitioners* are located at the following website: https://www.elsevier.com/journals/the-journal-for-nurse-practitioners/1555-4155/guide-for-authors

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APPENDIX A

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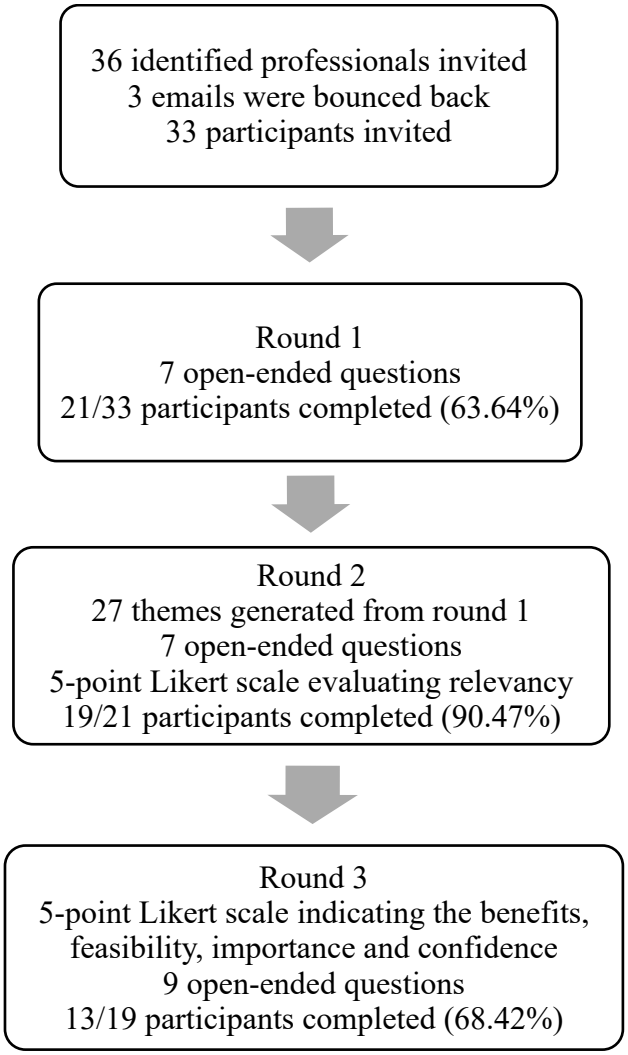
APPENDIX B

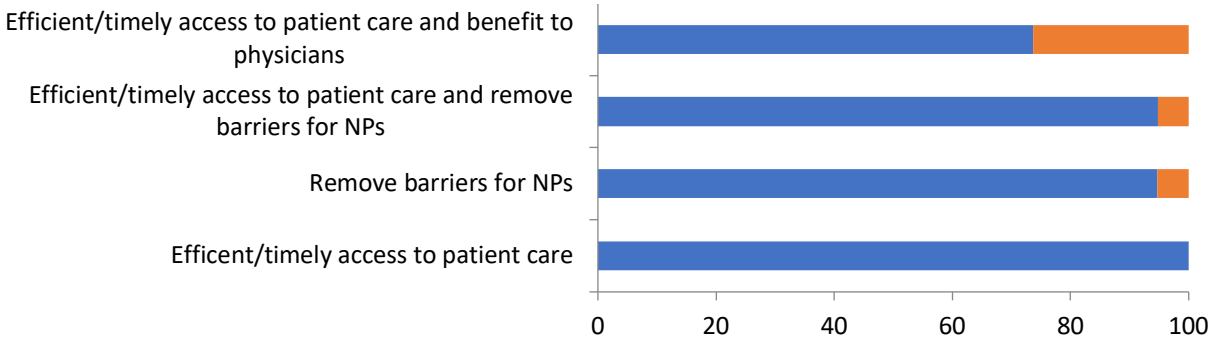
Flow of Participants and Items through the Three Rounds of the Policy Delphi Surveys



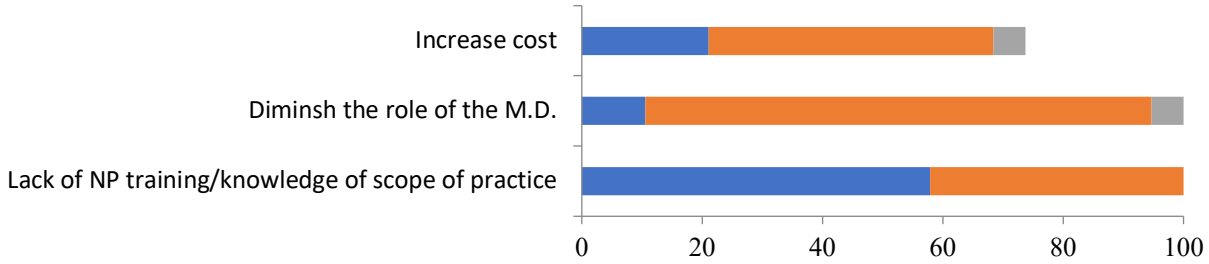
APPENDIX C

Emerging Themes from Round 1 (n=21) and Relevance from Round 2 (n=19)

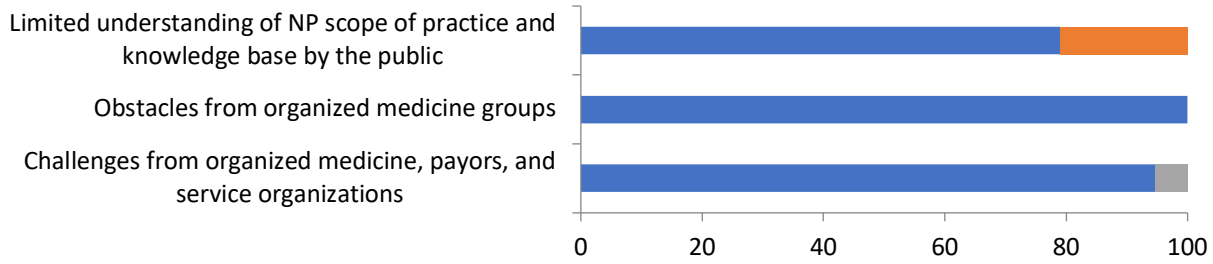
Benefits if NPs obtained global signature recognition in California



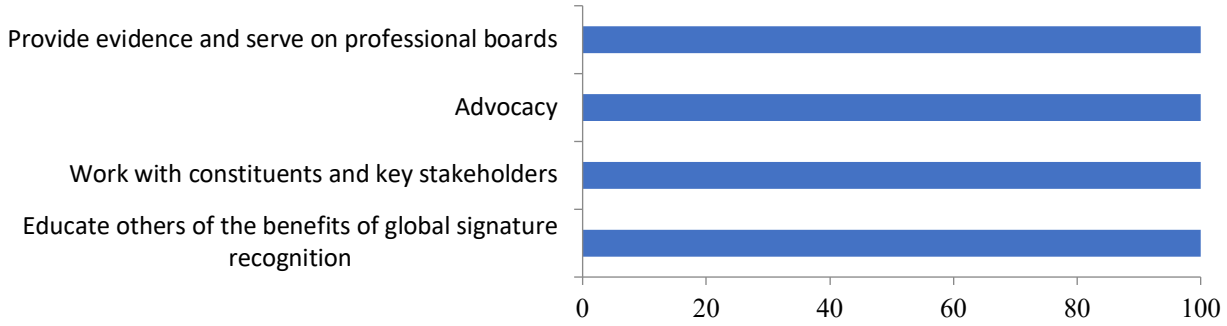
Risks if nurse practitioners obtained global signature recognition in California



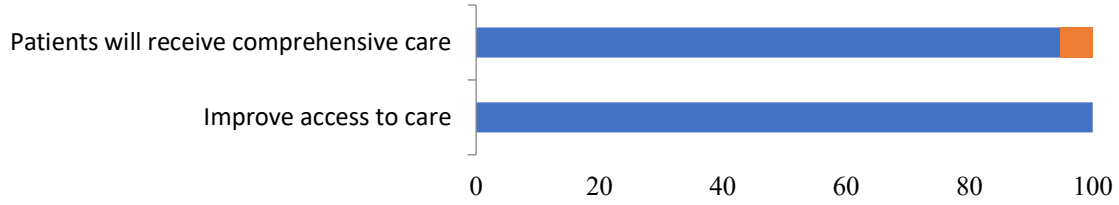
Limitations, obstacles or challenges anticipated if NPs move forward with legislation to obtain global signature recognition in California



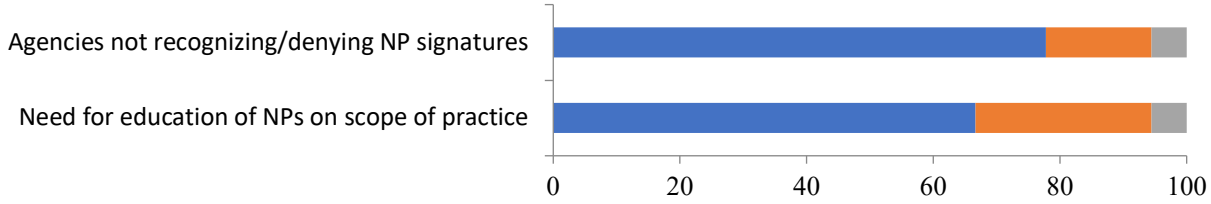
Recommendations to address limitations, obstacles and challenges that NPs may encounter with legislation to obtain global signature recognition in California



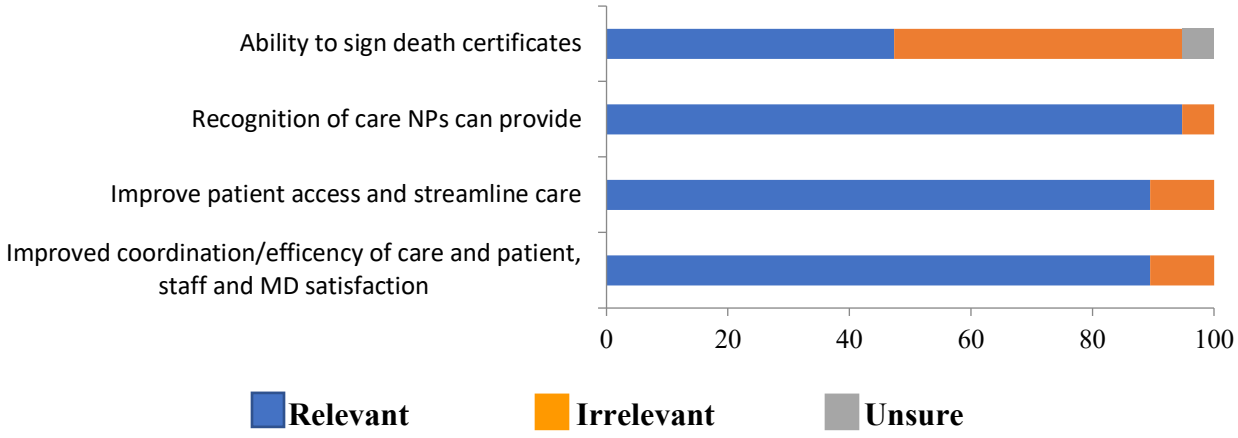
Anticipated positive impact global signature recognition will have on patients, practice and the delivery of health care in California



Anticipated negative impact global signature recognition will have on patients, practice and the delivery of healthcare in California

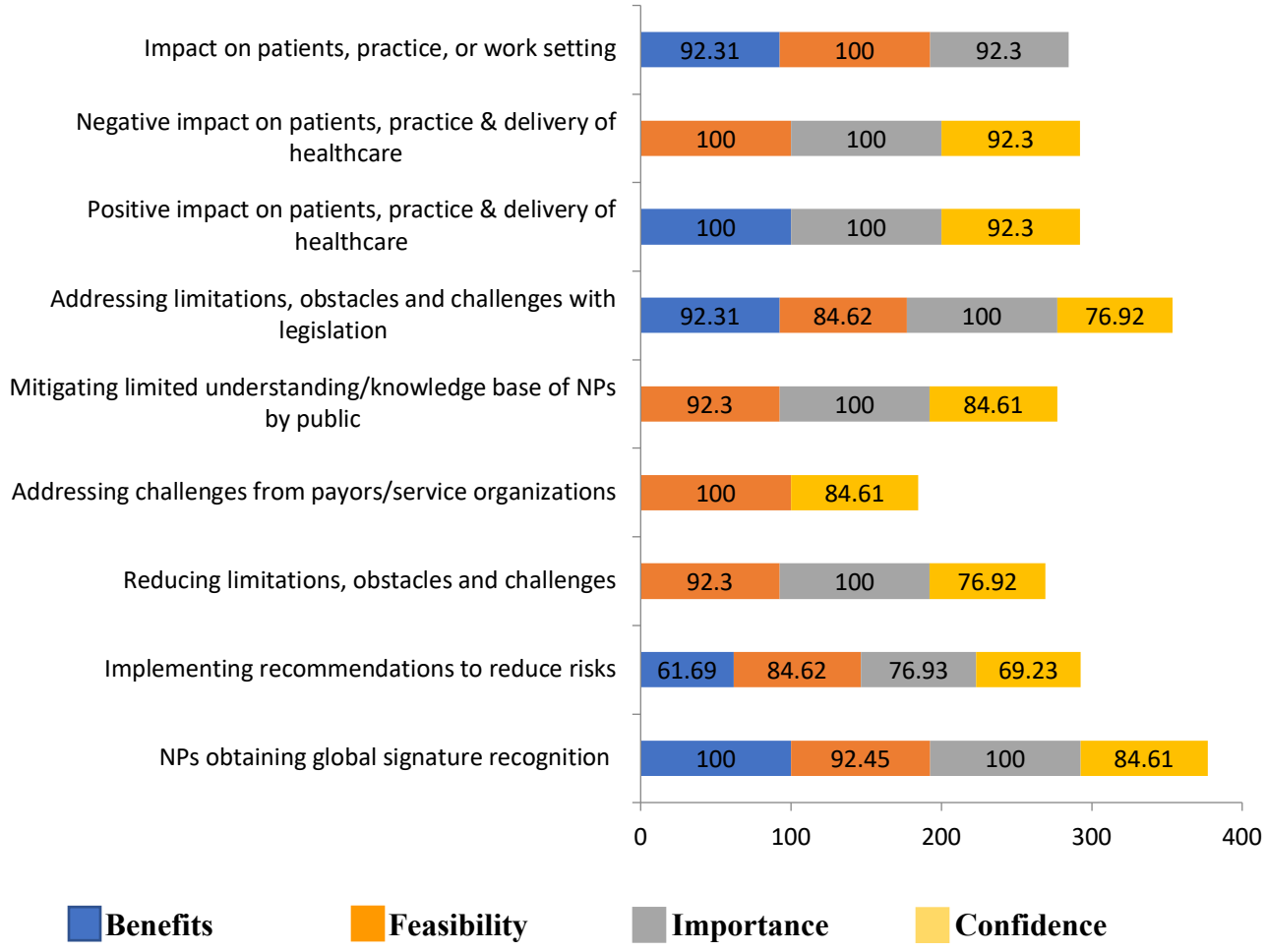


Impact global signature recognition for NPs in California would have on your practice, patients, constituents or work setting



APPENDIX D

Responses to the Themes from Round 3 (n=13)



APPENDIX E

Number and Professions of Participants in the Policy Delphi

Rounds	1	2	3
Clinical nurse practitioners	3	3	3
Nursing faculty	9	8	4
Nursing Administrators	4	4	3
Physicians	2	1	1
Leaders in Nursing Organizations/Agencies	3	3	2
Total	21	19	13

APPENDIX F

Opposing Viewpoints and Related Themes

1. Barriers to NP practice
    - Remove barriers for NPs
    - Patients will receive comprehensive care
    - Improve patient access and streamline care
    - Ability to sign death certificates
2. Effect on physicians
    - Benefit to physicians
    - Diminish the role of physicians
    - Improved coordination/efficiency of care and patient, staff and physician satisfaction
    - Recognition of care NPs can provide
3. Education
    - Lack of NP training/knowledge of the scope of practice
    - Limited understanding of NP scope of practice and knowledge base by public
    - Need for the education of NPs on the scope of practice
    - Agencies not recognizing/denying NP signatures
4. Cost

APPENDIX G

MANUSCRIPT TO BE SUBMITTED TO *THE JOURNAL FOR NURSE PRACTITIONERS*

Global signature recognition for nurse practitioners in California

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Conflict of Interest: Authors do not have conflicts of interest to disclose

Abstract

There are differences in state laws and regulations that restrict nurse practitioners (NPs) from performing certain patient care functions such as signature recognition (SR).[1] In California, it has been a slow, incremental process for NPs to gain the ability to sign and/or certify forms that facilitate patient care. States are moving forward to ensure NP signatures are recognized either by updating language in their state laws and allowing NPs to sign specific forms or adopting statutes that provide NPs with global signature recognition (GSR). A Policy Delphi approach was used to guide the analysis of GSR for NPs in California.

Keywords: nurse practitioner, signature authority, signature recognition, full practice authority, scope of practice, increase access, barriers to care

Issue Identification

The American Association of Nurse Practitioners (AANP) refers to signature authority as "state laws that authorize nurse practitioners to sign or otherwise complete forms related to patient care within their scope of practice (SOP)".[2] Fifteen states and the District of Columbia have SR laws.[3] NPs treat millions of patients every year, however, in most states, inefficiencies occur when NPs are barred from effectively documenting their patient care.[3] NPs' ability to execute standard/routine documents to secure the satisfaction of orders, transfers, or acknowledgment of care varies from state-to-state. Some policies and state laws include language prohibiting companies and agencies from recognizing a form with an NP signature, creating unnecessary limitations and resulting in inefficiencies and costly delays in care. The restrictions on NPs create barriers to care and result in steep costs to consumers.[4]

According to the AANP, states are moving forward to ensure NPs' signatures are recognized either by updating the language in their state laws and allowing NPs to sign specific forms or adopting statutes that provide NPs with GSR.[2] In 1999, NPs in California obtained the ability to sign for sample medications; however, it took another twenty years for NPs to obtain legislative achievements to authorize forms such as Department of Motor Vehicle physicals, disability and disability placards, durable medical equipment, and Physician Orders for Life-Sustaining Treatment.[5]

Background and Significance

The 2001 Institute of Medicine (IOM) report, *Crossing the Chasm: A New Health System for the 21st Century*, describes practice environments that control and restrict NPs from performing certain functions of patient care as "inconsistent, contradictory, duplicative, outdated, and counter to best practices".[6] According to the AANP,[2] requiring the involvement of two

healthcare providers to sign one form increases costs, delays patient care, and decreases productivity. To address these obstacles, a few states have taken a broader, or global, approach to creating statues authorizing NPs to sign, attest, certify, stamp, verify, endorse, or provide an affidavit for any form that a physician can do, provided it is within the NPs SOP. These SR laws increase transparency and accountability, provide efficient patient care delivery, promote the productive use of the healthcare workforce, and prevent delays and unnecessary costs.

Fifteen states plus the District of Columbia have broad-based, or SR laws: Colorado, Georgia, Hawaii, Idaho, Maine, Massachusetts, Montana, Nevada, New Mexico, North Carolina, Rhode Island, Vermont, Virginia, Washington, and Wyoming. Signature laws in these states are in alignment with the recommendations from major policy organizations such as the IOM, National Governors Association, National Conference of State Legislatures, and the Federal Trade Commission.[3]

A few states recognize NPs' ability to sign all forms within their SOP by including them in each relevant statute or rule.[3] This line-item approach requires states, such as California, to return for additional legislation to authorize NP SR in each statute. Most states have hundreds of statues relating to healthcare forms and it would require a very lengthy, intensive process to draft a bill to cover them all.[3] Therefore, a policy Delphi approach was used to guide the analysis of GSR for NPs in California.

Methods

Policy Delphi Design

A policy Delphi design allows participants to freely express statements, arguments, and comments initiating discussion around an issue. The Delphi technique is an iterative process involving repeated rounds of surveys given to a selected group of participants. Responses from

the first round are analyzed, summarized, and developed into questions in the next round of surveys. An ideal policy Delphi involves a three-round format.[7]

Surveys were sent electronically to the participants. The initial survey (round one) included information on NP GSR legislated in other states in comparison to the incremental legislative changes passed in California. It also included operational criteria to keep participants on task. The participants' comments were interpreted, coded and analyzed, based on the main idea of the comment and its usability and redundancy.[8] The narrative responses of participants in the first round were organized as themes.

The second round reported the themes from the first round and participants were asked to clarify and evaluate the relevance of these themes.[8] Round three reported the results of the first two rounds and allowed participants to review the other participants' ratings of relevance and effect, as well as their comments, allowing participants to change their viewpoints and opinions.[8] In addition, participants indicated their confidence about and opinion of the benefits, feasibility and importance of the supporting arguments and provided a comment/rationale for their choices relevant to GSR. The summary of round three illustrated the degree to which differences existed and where agreement was reached.

Participants

Based on Policy Delphi guidelines, a sample size of 10 to 59 participants is recommended and participants are recruited for their heterogeneity, rather than their expertise.[9,7] Inclusion criteria included the following: professionals working in clinical settings in California including NPs, physicians and healthcare nursing administrators; nursing faculty; administrators of nursing organizations and agencies; stakeholders outside of healthcare residing in California; and members of the current California State Assembly and/or Senate. Healthcare professionals

not satisfying the inclusion criteria and members of Congress were excluded.

Sampling

Purposive sampling was used to recruit participants, followed by snowballing to increase the number of potential participants. A personalized email invitation was sent to each participant describing the background of GSR.

Ethical Considerations

The Institutional Review Board (IRB) from the California State University, Long Beach (CSULB) approved this project. Participants received a cover letter explaining the policy analysis project involved three to five survey rounds sent over a three to five-month period with each survey requiring approximately 15 minutes to complete.

Procedures

The online survey platform, *Qualtrics*, was used. The first survey consisted of open-ended questions soliciting the perceived benefits, risks, limitations and challenges in obtaining GSR; recommendations to address the risks, limitations, and challenges; and the positive and negative impact of GSR on patients, practice, and the delivery of healthcare in California. At the end of the first round, participants submitted their completed questionnaires and comments which were interpreted, coded and presented as themes that emerged from free-text responses.

The second survey round presented the themes that emerged from the first round and percentages of responses that fell into each theme. The purpose of the second round was to clarify and evaluate the relevance of the themes. Using a 5-point Likert scale, each participant was asked to indicate their opinion regarding the relevance of each theme (very relevant, relevant, irrelevant, very irrelevant, or unsure) and to provide a free-text comment/rationale for their choices.

The third survey round focused on the relevance of each theme as perceived by each participant. Also presented were the free-text responses to the questions seeking clarification. The third round sought to determine the *benefits* (definitely beneficial, beneficial, slightly beneficial, not beneficial), *feasibility* (definitely feasible, possibly feasible, possibly unfeasible, definitely unfeasible), *importance* (very important, important, slightly important, unimportant), and *confidence* (certain, reliable, risky, unreliable) of the supporting arguments for GSR for NPs in California. Using a 5-point Likert scale, participants were asked to indicate their opinion regarding these components, including a neutral position of *unsure*, and to provide a comment/rationale for their choices.

Results

Sample Characteristics

Thirty-six participants were contacted to participate; however, three of the emails "bounced back," resulting in a total of 33 participants for the first round of surveys. Participants represented five different groups of professionals including clinical NPs, nursing faculty, physicians, leaders in nursing organizations and agencies, nursing administrators representing county, private and the Veteran's Administration facilities, and members of the California legislature. Table 1 summarizes the numbers of participants in all survey rounds by profession.

Rounds	1	2	3
Clinical nurse practitioners	3	3	3
Nursing faculty	9	8	4
Nursing Administrators	4	4	3
Physicians	2	1	1
Leaders in Nursing Organizations/Agencies	3	3	2
Total	21	19	13

Table 1. Number and professions of participants in the policy Delphi

Data Collection Rounds

Three iterative rounds of *Qualtrics* surveys were conducted between October and December 2020. Approximately 10 days were given to answer and complete each survey. Reminders were sent a few days before the due date. Only those participants who completed a survey round were invited to participate in the next survey round. There was a three to four-week interval between each round for data analysis, survey development, and pilot testing. Before sending each round of surveys, two nursing faculty members tested and piloted surveys to ensure accessibility of each survey and recommend modifications to the survey process.

Round 1

Twenty-one of the 33 participants (63.64%) completed the first survey. Seven open-ended questions requested a response to the following: benefits to obtaining GSR; perceived risks, limitations, obstacles, and challenges along with recommendations to reduce these concerns; and the positive and negative impact GSR would have on patients, practice, and the delivery of healthcare in California. Twenty-one participants provided a total of 127 responses to the seven-question survey, each question generating 18 to 21 responses. Responses were grouped into themes, with two to five themes emerging from each question. A total of 27 themes were presented in the second survey round.

Round 2

Nineteen of the 21 participants (90.47%) completed the second survey. A 5-point Likert scale addressed the relevance of 22 themes that emerged from each of the seven questions. Five themes from round one not measured for relevance included responses of “none”, “no impact” and “unsure”. The Likert scale ranged from very relevant, relevant, irrelevant, very irrelevant including a neutral option of unsure. There were 19 responses to the relevance of 19 themes and

18 responses to three of the themes. Participants provided a comment/rationale for their choices for a total of 96 responses, each question generating 15 to 17 responses. Participants responding with very relevant or relevant were asked additional questions to provide clarification of a certain theme. There was a total of 11 additional questions with a total of 157 responses, each question generating 6 to 18 responses. The relevance of each theme and the participants' comments/rationale to each question were presented in the third and final survey round.

Participants reached consensus on eight of the themes that emerged in round one and the relevance of the themes in round two. Participants agreed on the efficient and timely care patients would receive if NPs were to obtain GSR in California. All participants indicated the relevance of the obstacles and challenges to NPs from organized medicine, identified as the California Medical Association, and from payors and service organizations. Payors were identified as Independent Practice Association/Health Maintenance Organizations and private insurance providers. Service organizations included the pharmaceutical industry, medical suppliers, and healthcare facilities including hospitals, clinics, nursing homes, rehabilitation and community-based healthcare centers. Other organizations included assisted living/board and care facilities, local school boards, and consumer groups.

Consensus was reached on the recommendations to address these limitations, obstacles and challenges. The primary recommendations were education using evidence-based outcome data and serving as board members of organizations/committees to better "educate others regarding our scope of practice and knowledge base." Providing the outcome data to key stakeholders demonstrates "increased patient satisfaction, cost-savings, and improved access to healthcare." Working with professional organizations at state and national levels was emphasized by several participants.

Figure 2 summarizes the emerging themes from Round 1 that did not achieve consensus on the relevance of each theme in Round 2. A few participants indicated the benefits to the physician or removing barriers for NPs were not as relevant as "improving patient access to timely efficient care." Others believed the benefits to the physician would improve "efficient workflow" and "removing barriers for NP practice is a process step to improving patient care."

Viewpoints differed on the relevance of the themes related to the risks if NPs obtained GSR in California. The majority of participants indicated the risks of increased cost and diminishing the role of the physician were irrelevant or "less of a consideration." Obtaining GSR for NPs would be "cost-effective" and increase efficiency, access and patient satisfaction. The relevance of the potential for increased cost was explained as "the cost of educating the NP and establishing the practice" and "the cost to redesign various forms to include all healthcare clinicians." The majority of participants indicated the lack of NP training and knowledge was relevant. One participant stated, "All NPs should have adequate clinical and scope of practice training – I am often surprised that many do not have a full understanding." To mitigate the lack of NP training/education of SOP, recommendations included standardizing NP programs with increased hours for clinical training, providing residency programs, and phasing out online NP programs. "A training module for the NP to complete before being granted global signature access would be beneficial" was suggested.

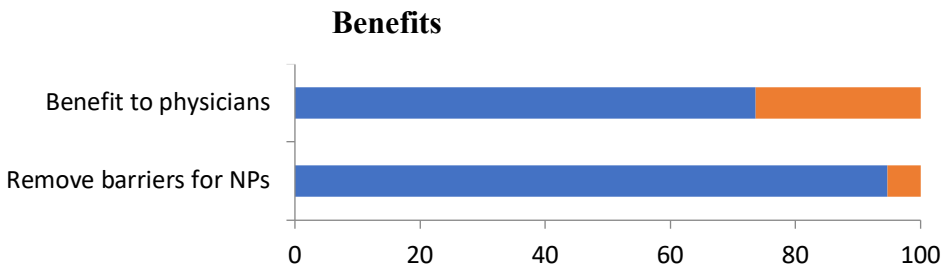
Viewpoints differed on the public's limited understanding of the role of the NP. One participant commented, "The public has limited understanding of what NPs do and with global signature that probably won't change, but the public may look even more favorable at NPs if there is less a delay in the care they need due to a signature."

The majority of participants indicated the relevance of the positive impact on improved,

comprehensive access to patient care if NPs obtained GSR. However, viewpoints differed on the definition of "comprehensive care." A few participants did not feel comprehensive care would change with GSR, indicating "comprehensive care has many other barriers beyond just NP care, such as lack of resources, insurance, or time."

Viewpoints differed on the relevance of the themes related to the anticipated negative impact GSR will have on patients, practice and the delivery of healthcare in California. The majority of participants indicated the relevance of the negative impact of agencies not recognizing or denying NP signatures and the need for education of NPs on SOP. A few participants indicated the negative impact of agencies not recognizing or denying NP signatures was irrelevant. One participant stated, "Organizations are heavily influenced by physicians, and may try to create other barriers." Comments on the importance of educating these agencies included "NPs have the education on what to order", but agencies will need "education on the new law" should GSR for NPs pass through legislation.

Viewpoints differed on the relevance of the themes related to the impact GSR for NPs in California would have on participants' practice, patients, and work setting. The majority indicated all of the themes were relevant. Participants who indicated the irrelevance of the themes did not work in a practice setting that require a physician signature or a signature on a death certificate.



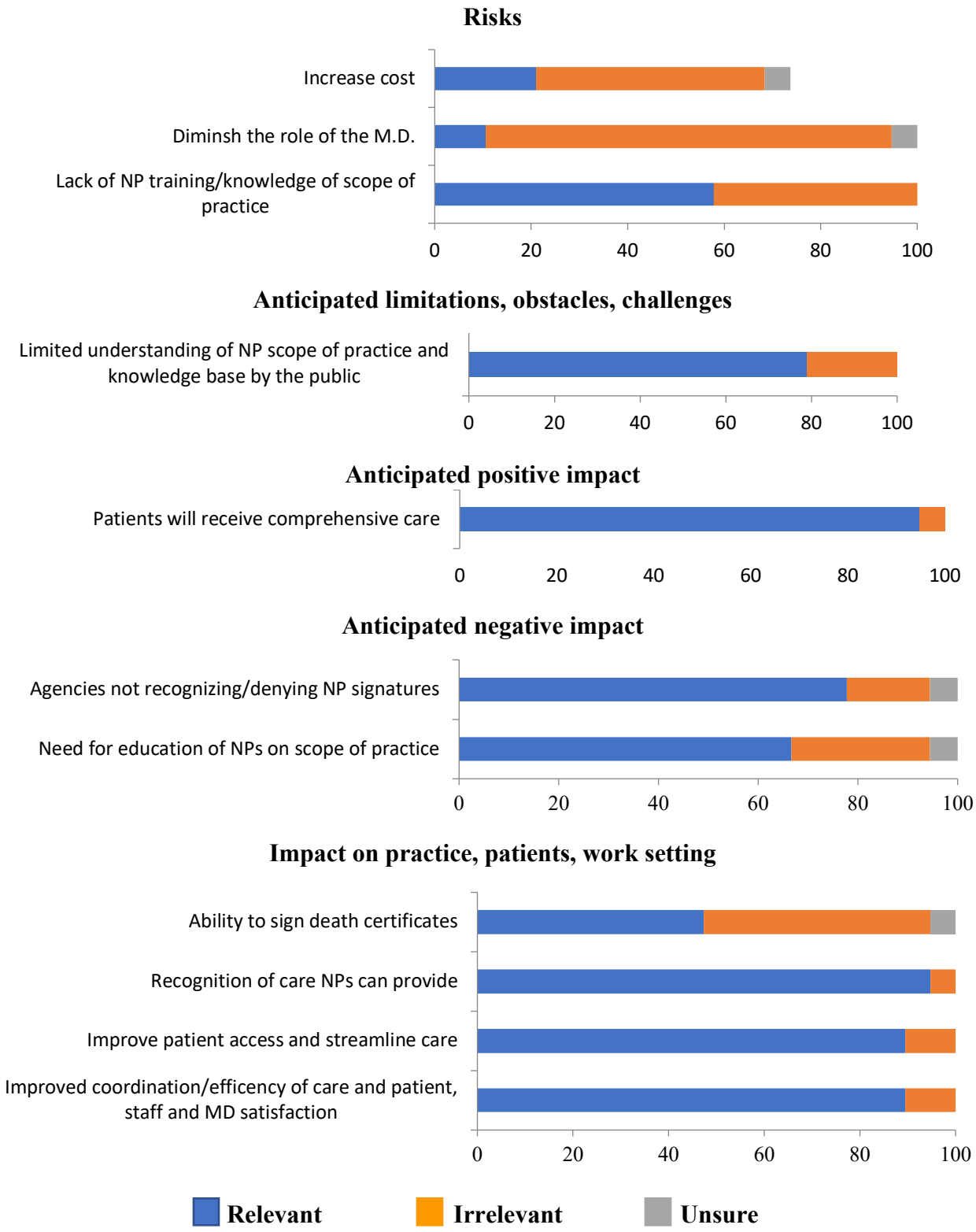


Figure 2. Emerging Themes from Round 1 (n=21) and Relevance from Round 2 (n=19)

Round 3

Thirteen of the 19 participants (68.42%) completed the final survey. Using a 5-point Likert scale, participants indicated their confidence about and opinion of the benefits, feasibility, and importance of the themes generated from the first two survey rounds. The response choices ranged from very beneficial to not beneficial, definitely feasible to definitely unfeasible, very important to unimportant, certain to unreliable, and a neutral option of unsure. There were 13 responses to each of the components in the Likert scale. Nine open-ended questions requested participants provide a comment/rationale for their choices. Participants provided a total of 70 responses, each question generating six to ten responses. Figure 3 summarizes the benefits, feasibility, importance and confidence of the themes.

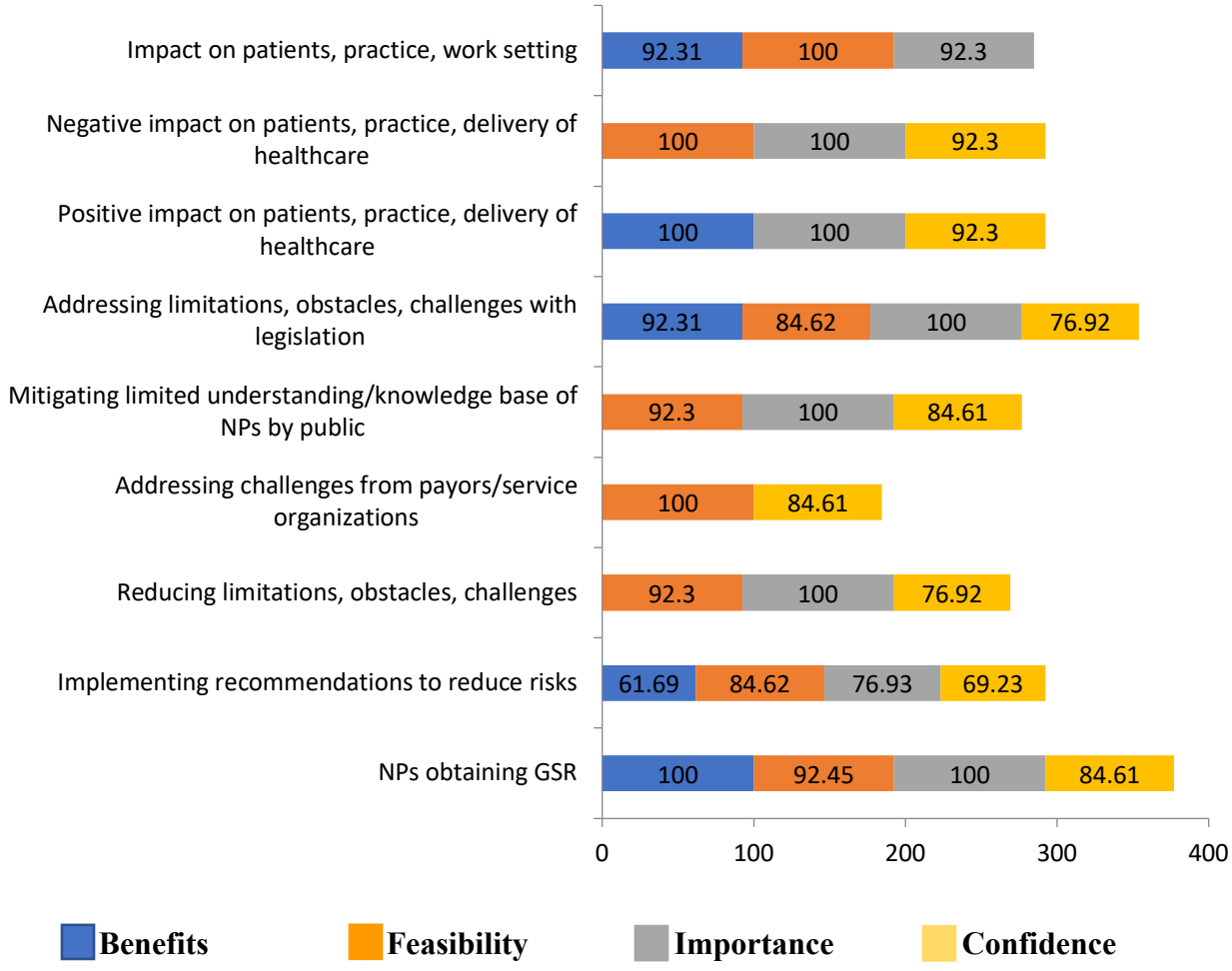


Figure 3. Responses to the themes from Round 3 (n=13)

Although participants agreed obtaining GSR for NPs in California would be beneficial and important, concerns of feasibility and confidence were related to the "political resistance by lobbying interests opposed" to this legislation. One participant stated, "The California legislature has a long history of wanting to specifically list all authorities and exemptions in bills….global signature seeks to bypass the need of going back to the legislature every time a change is requested."

There was a wide variation of the benefits, feasibility, importance and confidence of the implementation of the recommendations to reduce the risks to obtaining GSR. The most common concern was the cost and time related to the implementation and training related to the need for additional clinical hours and NP residency programs. Another concern was "an NP cannot sign any form and expect it will be authenticated by the receiving institution."

Consensus was reached on the importance of reducing the limitations, obstacles and challenges for NPs to move forward with legislation to obtain GSR. Concerns of the feasibility and confidence to move forward with this legislation related to the "significant educational endeavors", "structured clinical training", and groups/agencies that will "challenge" the legislation.

All participants agreed the implementation of the recommendations to address the challenges from payors/service organizations was feasible. The varied responses in the confidence of achieving this goal expressed the need for a "strong campaign" and "financing and significant effort to achieve."

All participants agreed the recommendations to mitigate the limited understanding/knowledge base of NPs by the public were important. Using professional

organizations to educate NPs and the public was emphasized. Additional training and certification were recommended as was the development of campaigns and marketing strategies. Concerns related to the feasibility and confidence to achieve this recommendation related to "the financial constraints of these endeavors" may be prohibitive.

All participants agreed the recommendations to address the limitations, obstacles, and challenges with legislation to obtain GSR were important. Responses varied to the benefits, feasibility and confidence. The challenges expressed were related to obtaining health outcome data on NPs, and the need for political involvement by professional organizations to develop support for regulatory changes.

Consensus was reached on the benefits and importance of the positive impact on patients, practice and the delivery of health care. The confidence responses varied with concerns expressed as to the amount of time, money and effort required to gain support.

All participants agreed on the feasibility and importance of addressing the negative impact GSR would have on patients, practice and the delivery of healthcare. The varied responses on confidence related to the emphasis on the education of NPs and the "target audiences."

Consensus was reached by the participants on the feasibility of the impact on patients, practice, and work setting if NPs obtained GSR. Responses on the benefits and importance were varied and related to the concern of organized medicine blocking NP practice.

Discussion

The aim of this policy Delphi was not necessarily to gain consensus but to have an informed group of participants present the differing positions, both opposing and supporting views, in developing a roadmap to action supporting legislation for GSR for NPs in California.

Persistent, diligent policy preparation and an understanding of the opposing viewpoints are required if the goal of adopting GSR for NPs in California is to be obtained. This Policy Delphi design was used to assist in the informed-decision making process as part of the effort to move this legislation forward.

Participants completed three rounds of a web-based survey, generating a total of 22 themes. Participants reached a consensus on eight of these themes. Of the remaining themes, four overarching opposing viewpoints were related to barriers to NP practice, the effect on physicians, education, and cost. Table 2 summarizes the viewpoints and related themes.

5. Barriers to NP practice • Remove barriers for NPs • Patients will receive comprehensive care • Improve patient access and streamline care • Ability to sign death certificates
6. Effect on physicians • Benefit to physicians • Diminish the role of physicians • Improved coordination/efficiency of care and patient, staff and physician satisfaction • Recognition of care NPs can provide
7. Education • Lack of NP training/knowledge of the scope of practice • Limited understanding of NP scope of practice and knowledge base by public • Need for the education of NPs on the scope of practice • Agencies not recognizing/denying NP signatures
8. Cost

Table 2. Opposing viewpoints and related themes

The majority of participants acknowledged the importance of addressing the barriers to the care NPs provide. Removing barriers to NP practice will provide efficient/timely access to comprehensive, streamlined patient care. However, others commented on the importance of efficient and timely access to patient care, suggesting the messaging should focus on patient care rather than on the barriers to the NP.

The majority of participants indicated GSR would have a beneficial effect on physicians, reducing interruptions in the workload of the physician and office staff and improving patient satisfaction. A few participants expressed “as NPs assume a larger role in patient care” there are concerns physicians may feel their role is diminished or they may feel an increasing “lack of physician oversight” of the care of their patients. As one participant stated, working with our physician colleagues, it is important to “Emphasize that global signature recognition does not change current scope of practice, but rather decreases administrative workload of physicians who spend excessive time signing forms and referrals.”

A majority of the participants indicated additional education and training would be required in order to obtain GSR for NPs in California. Suggested recommendations were in the form of extending NP programs, reducing summer and winter breaks, or establishing post-graduate residency or fellowship programs. An opposing argument to this thinking is GSR does not equate to “full practice authority”. GSR would be obtained within the NP SOP. Additional training is not necessary, except to educate NPs on the new law and the significance of its meaning should it pass through legislation.

A few participants indicated the costs associated with GSR would include educating NPs, additional forms and the “increased utilization of advance imaging and other diagnostic tests/labs.” The SOP of NPs in California includes the ordering of diagnostic procedures, test and laboratory blood testing. Additional forms may be required depending on the work setting of the NP. The majority of participants indicated there would be a cost savings by preventing delays and streamlining care if GSR for NPs were obtained in California.

Limitations

A strength of a Delphi process is the feature of anonymity of the participants’ responses.

This feature allows participants to express their thoughts independently, reducing pressure to conform to the group dynamics. Each response received the same level of attention and was weighted equally by the author. The iterative process inherent in a Policy Delphi adds to the burden of participation. The third survey occurred in the month of December, just prior to the holiday season. Concurrently there was a surge in the global coronavirus 2019 (COVID-19) pandemic. Unfortunately, participation in the third survey decreased. The participants views are considered expert opinions and do not provide a specific course of action to obtaining GSR for NPs in California.

Conclusion

The purpose of this analysis was to determine the risks, limitations, obstacles, challenges and impact if NPs moved forward with legislation to obtain GSR in California. This policy Delphi used a variety of participants who provided differing viewpoints of the options and alternatives to be considered in this roadmap to action. Concerns raised by the participants were related to the obstacles and challenges from various groups and agencies, specifically organized medicine, and the amount of time, money and effort it would take to achieve this goal. These are similar to the arguments put forward to achieve full practice authority.

One area that must be addressed is the education not only of our physician colleagues, healthcare agencies and the public, but also of NPs on what GSR means. Additional academic education and clinical training are not necessary to achieve this goal, as GSR does not equate to full practice authority, but falls within the existing NP SOP. Education must also focus on the provision of patient access and streamlined, comprehensive care, and not on the barriers to NP practice. Advocating for appropriate and improved access to patient care will aid in the containment of the rising cost of healthcare.

Recommendations for future studies are to analyze the processes and tactics used in states which have been successful in achieving GSR, and to discover the obstacles NPs overcame and the benefits to their patient population on achieving their goal of GSR.

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