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HEALTH CARE PROVISION TO TRANSGENDER INDIVIDUALS;
UNDERSTANDING CLINICIAN ATTITUDES AND KNOWLEDGE ACQUISITION

A Thesis Presented

by

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of

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Abstract

The Institute of Medicine report of 2011 defined *Transgender Specific Health Needs* as one of four priority research areas. While there is research asserting that health care providers (HCPs) do not have adequate training in providing competent care to transgender patients, there are no studies to date assessing HCPs' gender identity attitudes and their willingness to learn the Standards of Care (SOC) developed for this patient population. According to the Agency for Health Care Research and Quality, as of 2010, 52% of Nurse Practitioners (NPs) were practicing in primary care settings. As more than half of NPs practice in primary care and transgender patients often initially present their gender concerns to their primary care provider, this study focuses on the NP population.

This study describes a sample of NPs' attitudes towards gender variance, as well as their perceived need and interest in learning the SOC as published by the World Professional Association for Transgender Health. Multistate purposive sampling of NP professional organizations was conducted. Two conservative and two progressive states' professional organizations were included in the sample. The states were randomly assigned within both geopolitical groups to intervention or control with the use of a random numbers table.

Comparisons between geopolitical groups and between control and intervention groups cannot be made due to low response rates of all states. The majority of this small sample of NPs agreed that they needed and wanted additional training in transgender health care. Future research with representative sample sizes is needed to better understand provider-sided barriers to caring for this marginalized patient population.

Table of Contents

Page

List of Tables.....	iii
Literature Review.....	1
Journal Article for publication in the Journal for Continuing Education in Nursing.....	12
Journal Article References	36
Bibliography.....	38
Appendix	
Health Care Provision to Transgender Individual Survey.....	42

List of Tables

Table	Page
Table 1. Definition of Terms	33
Table 2.1 Provision of Transgender Health Care	34
Table 2.2 Attitudes and Beliefs.....	34
Table 2.3 Perceived Knowledge and Demonstration.....	35
Table 2.4 Interest and Willingness.....	35

Introduction

The Institute of Medicine report of 2011 defined *Transgender Specific Health Needs* as one of four priority research areas. While there is ample data asserting that health care providers (HCPs) do not have adequate training in providing competent care to transgender patients, there are no studies to date assessing providers' gender identity attitudes and their willingness to learn the appropriate standards of care as defined by the World Professional Association for Transgender Health (WPATH, Version 7, 2012). According to the Agency for Health Care Research and Quality, as of 2010, 52% of NPs were practicing in primary care settings (AHRQ.gov, 2014). As more than half of NPs practice in primary care and transgender patients often initially present their gender concerns to their primary care provider (Snelgrove et al., 2012), this study focuses on the NP population. This study describes a sample of Nurse Practitioners' attitudes towards gender variance, as well as their perceived need and interest in learning the standards of care referenced above.

See Table 1. Definition of Terms as needed.

Literature Review

Before educational opportunities for NPs providing transgender health care can be developed to increase knowledge and contend with the consequences of stigma and inadequate knowledge, it is valuable to explore the barriers that have been empirically identified. The only study exploring provider-sided barriers is a qualitative exploratory study based in Ontario, Canada demonstrated five distinct categories of provider-associated barriers to transgender health care (Snelgrove et al., 2012). This information

was gathered from 13 semi-structured interviews that were then transcribed verbatim and analyzed. Identified categories are listed below (Snelgrove et al., 2012).

1. Difficulty accessing resources
2. Medical knowledge deficits
3. Ethics of transition-related medical care
4. Diagnosing vs. pathologizing transgender identity
5. Health system determinants

Snelgrove et al. (2012), summarize a common frustration of the specialists interviewed stating that “certain health services which could be provided by primary care provider’s are not [provided] (p. 8).” The interviews offered some understanding of why HCP may be reluctant to provide gender transition services. These barriers fall under the categories mentioned above. For example, while not entirely permanent, once gender affirming hormone therapy (GAHT) has been initiated and maintained for four to six months, certain physical traits may become irreversible such as deepened voice and hair growth in FtM and breast growth and decreased erectile function in MtF. The irreversible nature of changes when taking long term GAHT may potentiate a clinician’s concern for patient regret (Coleman, et al., 2011). The HCP concern of patient regret with transition is prevalent in the literature. HCPs’ concern about providing care is related to irreversible traits that in time the patient may come to regret. Follow up studies of individuals who have transitioned, however, rarely uncover a regretful transition (Snelgrove et al., 2012).

Another ethical concern from the HCP perspective was that patients may have expectations for how they will look that are unrealistic and do not acknowledge the variability of treatment outcomes (Snelgrove et al., 2012). The study offers helpful and insightful and novel information relating to barriers and gaps in services some of which

will be discussed in greater detail below. A weakness of the study lies in questionable generalizability to the United States due to participation of Canadian subjects only. Also, 13 subjects is certainly a small sample size, but this is expected in qualitative research. Further research is needed to better understand provider-associated barriers throughout the States.

Consequences of Inadequate Training

A few consequences of provider reluctance and inadequate knowledge base (i.e. HCP-sided barriers) are as follows: scarce access to transgender health care; incompetent care delivery, such as not offering Pap smear screening when indicated for a FtM patient; perpetuation of incompetence and misinformation due to HCP receiving little to no training, homophobia and transphobia resulting in discrimination; and finally, mental and physical harm of transgender patients in clinical settings (Snelgrove et al., 2012; Xavier et al., 2013). It can be difficult to determine causality between attitudes that may affect knowledge acquisition and therefore result in uninformed treatment or avoidance of treating transgender individuals. Utilizing the Managing Uncertainty and Establishing Authority conceptual framework and Feminist Model of Practice will offer a more comprehensive understanding of the influences and attitudes that may result in specific knowledge gaps that exist in caring for gender variant individuals (Poteat, German & Kerrigan, 2013).

The Managing Uncertainty and Establishing Authority conceptual framework provides structure to effectively analyze HCP attitudes and knowledge by offering the lens of uncertainty, power, acceptance, participation, and resistance to stigma (Poteat et

al., 2013). The presence of structural and institutional transgender stigma and the minimization of transgender physiology and health guidelines in the training of HCPs, all contribute to a relationship based on a foundation of uncertainty and ambivalence between HCPs and transgender patients (Poteat et al., 2013). While the uncertainty experienced by transgender patients is informed by the barriers mentioned above, there is an additional component of anticipatory uncertainty related to the provider's competence in caring for their health. For example, many transgender patients anticipate the need to educate their HCP on how to care for them (Ettner et al., 2007). The presence of uncertainty between patient and caregiver challenges the typical relationship in which the HCP is the expert authority figure and the patient is on the receiving end of this expert information. Poteat et al. (2013), posit that HCPs either consciously or subconsciously use stigma to manage the threat that uncertainty poses to maintaining that kind of authority. Re-establishment of authority was evidenced in interviews where HCPs dismissed transgender patient's knowledge as myths and used blaming, shaming, "othering," and discrimination to reassert their position of power and the heterosexual norms referred to as hetero-normativity (Poteat et al., 2013).

A weakness of this framework is that it does not include any overarching concept of hetero-normativity but instead sees it as an independent factor. The concepts associated with hetero-normativity are so pervasive in society that its influence is present in virtually all interactions. One way this norm may manifest in the clinical environment is that the power returns to the provider through the use of "othering" the client by

suggesting there is something intrinsically problematic about the lesbian, gay, bisexual (LGB) person and perhaps even more so in the transgender person.

This framework notes that transgender patients who express resistance to interpersonal stigma as a reassertion of power and dignity may run into challenges of less informed care or continual power struggles with their HCP (Poteat et al., 2013). It is important to remember that the transgender patient often has health care needs such as prescriptions, lab work and referrals, that require support, knowledge and action. It is possible that transgender patients demonstrate submissive patterns simply to attain their health care needs. Submissive behavior certainly comes into play in the gatekeeper dilemma where a transgender patient requires a letter from a therapist advising the patient's HCP that they support the individual's gender transition (Singh & Burnes, 2010). The Managing Uncertainty and Establishing Authority conceptual framework may therefore also apply to mental health provider-patient relationships as well. While the guidelines themselves may pose certain hurdles to patient care, understanding and analyzing one's own attitudes and beliefs is just as imperative as being knowledgeable about standards of care.

In contrast to the Managing Uncertainty and Establishing Authority conceptual framework, the Feminist Model of Practice proposed by Andrist, (1997) offers a powerful practice model that can be used to seek social transformation. While the model was designed to improve the health care provision to women, its major tenants are relevant to the provision of health care to transgender individuals and certainly to the study of that care. There are four major themes of this model: symmetry in patient-provider

relationships, creating an atmosphere conducive to teaching and learning, empowering patients such that there is shared decision-making and finally but perhaps most important in terms of framing this specific study is the theme of social change. Creating institutional and societal change that promotes and results in improvement of services to transgender individuals is quite an undertaking, but this model encourages each individual HCP to critically analyze the issues and problems that emerge in their approach to care for the transgender patient. Asking one-self, for example, what are the barriers to the health of a transgender person in my state, my community, my workplace? Are there equal employment opportunities and equal access to mental health resources as compared to the general population?

A real benefit of the Feminist Model of Practice is that the HCP is encouraged to think outside of themselves, the clinic, and the community so that they can then apply that new awareness to the individual who is seeking transgender health care. Andrist (1997) challenges the HCP by stating it is their responsibility to be “grounded in the needs of the community,” and to work towards appropriate, sensitive and knowledgeable health care (p. 271). This study uses both the Managing Uncertainty and Establishing Authority conceptual framework and the Feminist Model of Practice as conceptual lenses to analyze the data and to provide structure to this research.

Another experimental study, conducted at the University of California at San Francisco, sought to determine second year medical students’ knowledge, attitudes, and beliefs about LGBT health before and after a training intervention. The intervention was divided into three steps. The first was an informative syllabus including LGBT

definitions, health hazards of homophobia, descriptions of health issues specific to the population, and an introduction to transgender health issues and social context. The second step was a one-hour patient panel comprised of an older gay man, a middle-aged lesbian and a young transgender man. The third step consisted of one-hour small group sessions focusing on case studies (Kelly, Chou, Dibble, & Robertson, 2008). The researchers made alterations to the Attitudes towards Homosexuality survey, an instrument with established reliability and validity, and validated their changes such that 16 questions assessed knowledge and attitudes. Surveys were mailed to students (n=75) two weeks prior to receiving the syllabus and then the same survey was completed after the educational training and compared using paired *t*-tests (Kelly et al., 2008).

Findings from this study suggest that a short and focused intervention can effectively have a positive impact on medical students knowledge about and attitudes towards to LGBT health (Kelly et al., 2008). One key finding of particular interest is the increased willingness of the students to provide care for transgender patients in the future. The researchers suggest that a contributing factor to the success of this intervention was related to the shift in emphasis away from a causation between health risks and being LGBT and towards the health consequences of being LGBT in a homophobic and transphobic society (Kelly et al., 2008). This difference in how the issue is framed may mean that the stigma concept in the Managing Uncertainty and Establishing Authority model and the social change theme of the Feminist Model of Practice are targeted as aspects of learning how to work with the transgender patient and community. The changes in student perception demonstrated by before and after survey comparisons show

that students grasped the real effects of homophobia (Kelly et al., 2008). It would be beneficial to study long-term outcomes of this sort of intervention to determine if in actual practice, there is, in fact, increased gains in LGBT care delivery. Weaknesses of this study lay in the students' low response rate of 52% and the potential for gender bias as more females than males completed the survey (Kelly et al., 2008).

While there are numerous studies that focus on medical students' attitudes and knowledge base under the umbrella of LGBT health, few exist with a dedicated focus on transgender individuals and yet even fewer analyze currently practicing HCPs attitudes and knowledge base in regard to this population (Kitts, 2010). Simply uncovering the stigmatizing and discriminatory attitudes and beliefs of HCPs does not inform the researcher about what the HCP does understand about transgender health guidelines, nor does it address care outcomes. An NP, for example, may believe that transitioning genders is fundamentally wrong, but could provide competent and sensitive transition services according to the WPATH guidelines. Alternatively, a physician who is very supportive of trans-identified individuals may not be familiar with the recommendations or have had enough experience to prescribe GAHT or refer patients for gender reassignment surgery. Therefore, it becomes quite apparent that understanding how attitudes affect knowledge acquisition and care provision is paramount in addressing how to ensure effective and sensitive care to the transgender patient and transgender population as a whole.

Gathering data on medical students' attitudes is of great importance in making a positive impact on HCPs knowledge, with a goal of decreasing stigma and recalibrating

the patient-HCP power dynamic for future practice. In addition, more attention is needed regarding the transgender health knowledge, attitudes and educational training of currently practicing HCPs as well. Targeting research and educational opportunities to future HCPs only excludes the 55,625 NPs who were providing primary care in the United States as of 2010 (AHRQ.gov, 2014). As previously mentioned, data exists detailing HCPs' lack of transgender health knowledge and experience, yet no studies to date have been conducted to better understand HCP's willingness to seek additional educational resources related to transgender health care. As there are no studies that have assessed HCP's interest and motivation to gain further transgender specific knowledge this study sought to gain a better understanding of HCP's motivations or lack of motivation on this topic.

Educating Providers on Transgender Health Care

Goldberg (2006) proposes four training frameworks for community clinicians based on a tier system developed by the Trans Care Project. Transgender health care is classified as Tier 1 – Basic, Tier 2 – Intermediate and Tier 3 – Advanced. Each tier has core competencies associated with the services involved (Goldberg, 2006). The Tier 1 clinician is familiar with transgender issues and would respond sensitively and respectfully were a patient to disclose gender identity variance or express gender related concerns. Tier 1 – Basic training is recommended for all clinical staff in addition to administrative staff that may interact with gender variant individuals. Tier 1 likely addresses the following two themes from the Feminist Model of Practice: symmetry in patient-provider relationships and creating an atmosphere conducive to teaching and

learning (Andrist, 1997). Tier 2 training enables the clinician to modify standard medical protocols to address trans-related health needs with regard to health promotion, disease prevention, advocacy, history taking, diagnosis, assessment and treatment (Goldberg, 2006). A Tier 3 clinician is trained to clinically assist gender transition including hormone therapy, speech and voice change, and coordinating referrals and post-op care for individuals seeking gender reassignment surgery (Goldberg, 2006). Tier 2 and Tier 3 clinicians would likely have the ability to accomplish all four themes of the Feminist Model of Practice as they have the knowledge and acceptance of transgender individuals, allowing them to make the move toward shared decision-making and social change. A Tier 3 clinician would make strides towards social change for example, by writing a letter to the commissioner of health and state subsidized insurance plans advocating that transgender health needs such as surgery and GAHT, be covered expenses.

Goldberg's (2006) tiered system was modeled on core competency tiered systems used in HIV and addiction HCP training programs. To bring HCPs universally up to even Tier 1 training would likely make a significant positive impact on transgender individuals' health. While Goldberg recommends using a diverse array of educational training methods such as lectures, self-awareness exercises, clinical reasoning exercises, small-group role play, etc., it is possible that a concise, informative, and respectfully designed short video could accomplish the core competencies involved in the Tier 1 training. The use of a short video may serve as the initial stimulus needed to create interest, awareness and acknowledgement of a HCP's gap in clinical acumen. It is possible that awareness of this gap could motivate a HCP to seek additional educational

resources.

Video as a Motivational Tool

The use of a short educational and informative video may assist HCPs in gaining motivation to engage with transgender patients. Time and energy are required to study the guidelines and create a provider support and referral network around transgender health. Thus encouraging and eliciting motivation may be the initial step in creating an interest among HCPs to learn more about transgender health. The use of multimedia learning is widespread in all educational settings in the United States and offers the unique opportunity to learn anywhere there is computer and Internet access (Mayer, 2008). Multimedia learning consists of combining words and images to educate an audience about a specific topic. The cognitive theory of multimedia learning takes this definition one step further to encompass dual selection of relevant words and images, then organizing the selected words and images and finally integrating them into working memory (Mayer, 2008). Mayer offers the “redundancy principle“ that posits people learn better from a combination of animation and narration than when animation, narration, or on-screen text are presented in isolation from each other (2008). Based on this theory, an experimental study that provided HCPs a short informative and engaging video on transgender health care would likely have a more profound impact than information presented in paper-text format.

Article for Publication in the Journal for Continuing Education in Nursing

Abstract:

The Institute of Medicine report of 2011 defined *Transgender Specific Health Needs* as one of four priority research areas (IOM.edu, 2013). While there is research asserting that health care providers (HCPs) do not have adequate training in providing competent care to transgender patients (Snelgrove et al., 2012; Goldberg, 2006), there are no studies to date assessing HCPs' gender identity attitudes and their willingness to learn the Standards of Care (SOC) developed for this patient population. According to the Agency for Health Care Research and Quality, as of 2010, 52% of Nurse Practitioners (NPs) were practicing in primary care settings (AHRQ.gov, 2014). As more than half of NPs practice in primary care and transgender patients often initially present their gender concerns to their primary care provider (Snelgrove et al., 2012), this study focuses on the NP population. This study describes a sample of NPs' attitudes towards gender variance, as well as their perceived need and interest in learning the SOC as published by the World Professional Association for Transgender Health (WPATH, Version 7, 2012). The majority of this small sample of NPs agreed that they needed and wanted additional training in transgender health care. Future research studies with representative sample sizes are needed to better understand provider-sided barriers to caring for this marginalized patient population.

Keywords:

Transgender; gender identity; gender variance; gender dysphoria; nurse practitioner

Key points

- In this study many of the NPs have little to no understanding of the health needs, SOC and available resources for the transgender patient. This lack of knowledge has far reaching health consequences.
- In this study, NPs responded to attitudes assessment questions with great variability. Many questions throughout the survey were answered with ambiguous responses.
- A large proportion of NPs express both the need and desire to attain continuing education on the topic.
- Ethically informed nursing care may not currently be universally provided to the transgender patient population.
- A short video or introductory training could make a positive impact in improving transgender health care provision.

Introduction:

Transgender individuals (see definitions, Table 1) are becoming more visible and present in society, the workplace and within health care settings (Coleman et al., 2011). Transgender health care is standard health care as well as gender transition related health care. Transgender patients for example, may seek gender affirming hormone therapy (GAHT) and referrals to surgery from HCPs in addition to receiving treatment for allergies or painful joints. There are not enough knowledgeable and accessible HCPs available to meet the demand of this marginalized patient population (Sanchez, Sanchez, & Danoff, 2009). The Institute of Medicine press release of 2011 identified transgender specific health needs as a priority research topic in an attempt to understand and address this gap in services (IOM.edu, 2013). An initiative of Healthy People 2020 further supports the demand for this research by defining one of their goals as improving the health of transgender individuals (Healthypeople.gov, 2014).

While there is evidence in the literature of numerous challenges regarding transgender health care access and treatment, such as systematic oppression and devaluation, there is little data-based research related to HCPs' attitudes and competency in treating this population (Hughes, 2008). Evidence-based standards of care for the medical treatment of transgender patients are available to HCPs, yet reluctance and discomfort in serving this patient population in the United States is seen as a pervasive phenomenon (Coleman, et al., 2011; IOM.edu, 2013; Poteat, German and Kerrigan, 2013).

Andrist (1997) posits that stigma and discrimination are at the root of health disparities in minority populations. Studies suggest that many HCPs do not have adequate knowledge and experience to provide competent transgender health care regardless of their attitudes on the topic (Coleman, et al., 2011). Additionally, it is important to note that ignorance of certain health issues in the broad context of health care does not necessarily equate to a lack of caring or sensitivity. There are many factors that influence HCP's willingness and attention to learning about a burgeoning health issue. The majority of research studies on the topic are qualitative studies describing barriers to transgender health care from the patient perspective. Limited research exists that describes the experience of both providing and deciding not to provide healthcare to transgender patients from the HCPs perspective (Snelgrove et al., 2012).

The prevalence of the transgender population is difficult to determine due to stigma, fear, and a strong likelihood of under-reporting in widely dispersed surveys (Gates, 2011). After analysis of four national and two state-based surveys, the Williams Institute estimated as of 2011 that there were 700,000 transgendered individuals in the United States, which translates to about 0.3% of the population (Gates, 2011). This number does not include individuals who self identify as gender variant or gender queer. While transgender individuals form a small segment of the population, it is unacceptable to simply ignore their health needs, risks, and experiences. As gender affirming hormone therapy (GAHT) becomes more common, more academic institutions include transgender health in their curriculum, health insurance policies and guidelines are made more

accessible for this population, it is expected that more trans-identified individuals will present for services (Coleman et al., 2011).

In 2013, the Diagnostic and Statistical Manual of Mental Disorders (DSM) published its fifth edition, wherein the diagnostic terminology for transgender patients changed from Gender Identity Disorder to Gender Dysphoria (American Psychiatric Association (APA), 2013). This change in terminology was made for important reasons. First, the APA determined that gender dysphoria is not a mental disorder. Nonetheless, a diagnosis code for medical and mental health professionals is needed to receive insurance reimbursement. The APA anticipated significant barriers to care for transgender individuals if their health care providers could not bill for services provided.

Understanding that there was a need for a diagnosis simply to ensure transgender patient's access to services, the APA then faced the difficulty of creating a stigma-free terminology for the diagnosis code. The word "disorder" was deemed too pathological and the term dysphoria was considered more appropriate to the associated symptoms and behaviors experienced by transgender people. The DSM-5 classifies gender dysphoria as "a marked incongruence between one's experienced/expressed gender and assigned gender, of at least six months' duration" (APA, p. 452, 2013). An additional component to the diagnostic criteria is that "the condition is associated with clinically significant distress or impairment in social, occupational or other important areas of function" (p. 453). Specific manifestations of the aforementioned gender incongruence are defined to substantiate the diagnosis.

The theoretical causes for gender dysphoria are diverse and lack substantiating evidence. Theories on gender dysphoria range from genetic predisposition, to environmental factors, to differences in gray matter in the brain of transgender individuals (Eliason and Schnope, 2007; Luders, et al., 2009; Ettner, R., Monstrey, S. and Eyler, A., 2007), speculate that the lack of evidence-based research that addresses an etiology of gender dysphoria likely contributes to HCPs' uncertainty and reluctance in treating transgender patients. A common finding in the literature is the HCP's lack of familiarity with guidelines and recommendations for transgender patients. HCPs are most comfortable treating conditions that they are familiar with, thus there is perhaps a relationship with their lack of familiarity with transgender health care, which fuels their discomfort or overt refusal of service when a transgender person presents with health needs (Hanssmann et al., 2008).

Fortunately, even though there is not a strong understanding of the contributory factors to the etiology of transgenderism, what constitutes the provision of state-of-the-art treatment is recognized internationally (Ettner et al., 2007). The World Professional Association for Transgender Health (WPATH) published the seventh version of the Standards of Care for the Health of Transsexual, Transgender and Gender-Nonconforming People in 2011. This comprehensive document provides a wealth of information regarding transgender health care (Coleman et al., 2012). This document is readily available with a basic search for transgender care guidelines and it outlines in detail the recommendations for this patient population. The aim of this study is to better understand the relationship among HCPs' attitudes, beliefs, and their willingness to

acquire and utilize the WPATH guidelines. At this point in time, there are no studies that look at the relationship between HCP's perspectives and their willingness to learn about and use care guidelines for transgender patients.

Research Aims

This study set out to 1) describe NPs' attitudes towards transgender patients, 2) ascertain NPs' knowledge of transgender health Standards of Care as set forth by the WPATH, 3) assess NP's willingness to gain additional educational preparation in transgender health care, and 4) determine if a video of transgender individuals describing their health care needs influenced NPs' perceptions and if this varied by geopolitical region. Geopolitics has a number of different definitions, for the purposes of this study the term is used to mean the study of the interrelationship among politics, geography, demography, economics and social values (Neufeldt, 1994).

Methods

A non-equivalent group design was utilized. Data were collected from an anonymous online survey dispersed to members of four states' NP organizations. LimeSurvey was the online survey program used (Limesurvey.org, 2014). The NP associations were randomized with a random numbers table. Two states were randomized to view the video intervention and received a survey that had the video as the first question of the survey. Participants were asked to view the short video prior to completing the survey. The two NP associations randomized to the control group received the survey without the video intervention. The surveys were distributed to the secretary of each states' professional NP organization with an introductory letter

requesting member participation and the University of Vermont's Institutional Review Board's (IRB) letter of approval for this research. NP organizations had different methods for distributing the surveys to their members; two organizations sent the survey out as a link at the end of monthly newsletters and one organization sent an email out with an introduction to the study and a link at the bottom.

Instrument

A 16-question survey was developed by the PI to evaluate the following constructs: attitudes, knowledge and willingness to acquire more resources on the topic. The question "People are either men or women" was used with permission from the modified Gender and Transphobia scale revised by Carrera-Fernandez, Lameiras-Fernandez, Rodriguez-Castro, & Vallejo-Medina, (2013) and initially created by Hill & Willoughby (2005). This question has a Cronbach's α of .82 and good construct validity (Carrera-Fernandez et. al, 2013). The remaining 15 questions were reviewed and revised by a panel of experts in the field to increase content validity.

Intervention

Transgender-identified individuals from two local LGBT organizations were asked to volunteer to participate in a transgender health video. Four individuals responded and all four participated after giving their informed consent. These individuals were posed the question "What do you need your health care provider to know or do for you?" Their responses were video-recorded and compiled into one short video by the PI. The PI edited the video to avoid redundancy in comments and to keep the duration under

four minutes. This time limit was chosen as the PI anticipated fewer NPs would participate in the survey if the video length exceeded four minutes in duration. Each participant had the opportunity to review and revise his or her video portion in an effort to increase accuracy.

Sample

A total of four states' professional Nurse Practitioner organizations were sampled. The four states were chosen from a Gallup poll (2013) that ranked progressive, conservative and moderate states. Two states, one progressive and one conservative were a control group, receiving no video (Gallup, 2013). The other two states were the video intervention group.

Progressive State A (control group) submitted 78 full surveys and Progressive State B (video intervention group) submitted 2 full surveys. Conservative State A (control group) had no participants and Conservative State B (video intervention group) submitted 7 full surveys.

Data analysis

Descriptive statistics were used to describe findings. Due to a low response rate from multiple states, bivariate statistics were not appropriate.

Results

The Progressive State A had the highest response rate (0.07%, n=78). Progressive State B had a very low (0.005%, n=2) response rate, as did Conservative State A (0%, n=0) and Conservative State B (0.02%, n=7), thus descriptive statistics cannot be produced for Progressive State B and Conservative State A. Primary care was the listed

practice setting in (39.5%, n=32) Progressive State A, and (85.7% n=6) in Conservative State A. Partially completed survey responses were not included in the sample as their responses were only saved upon completion. Progressive State A had 6 partial survey responses, Progressive state B had 1 partial survey response, and Conservative State B had 2 partial survey responses.

Most responses to all questions expressed some level of ambivalence or lack of knowledge represented by frequent selection of the “neither agree nor disagree” answer. Of responses received, 50.6% of respondents from Progressive State A and 42% of respondents from Conservative state B agree with the statement “As a Nurse Practitioner, I do not have the knowledge base to provide competent health care to transgender patients.” Respondents from Progressive State A (86%) and Conservative State B (100%) reported never having reviewed the Standards of Care. Progressive State A (67%) and Conservative State B (57%) reported interest in reading the WPATH SOC. Progressive State A (80%) and Conservative State B (71%) of respondents responded positively to the statement, “I need additional training to provide competent health care to transgender patients.”

See Tables 2.1 through 2.4 for descriptive statistics.

Discussion

This study was intended to be a randomized control group design, gathering data on attitudes and also testing whether a video commentary from transgender persons describing their health care experiences, influenced NP’s attitudes and interest in continuing education on transgender health care. Due to no responses in one state and

low response rates in the three others, assessment of the impact of the intervention is not possible. Thus, the data from the study has been analyzed descriptively to provide a starting point for further investigation into attitudes and behaviors that may contribute to knowledge gains or gaps, and interest or disinterest in providing competent health care to transgender individuals.

The low response rate from all four states is puzzling. It is difficult to ascertain if the response rates from this online study are similar to response rates of other online surveys distributed to members of nurse practitioner organizations due to lack of literature on the topic. It certainly is possible that the lack of participation reflects a specific response to this particular topic. Unfortunately, without any information on why certain members participated and others did not, the PI is unable to make any conclusions about the attitudes that may have influenced such low response rates. Similarly, no inference can be made regarding why some participants did not complete or submit their surveys. Partially completed surveys may have been incomplete for any number of reasons ranging from technical difficulties, to time constraints, to a discomfort with the topic of gender presentation and transgender health. Again, there is no evidence why individuals did or did not take or complete the survey.

Access to the Survey

Conservative State A (response rate 0%) representatives had appeared willing in communications with the PI to distribute the survey to their membership prior to learning the study topic. However, after receiving the actual survey with a description of the intended study no further correspondence was received despite two follow up attempts.

While no certain deductions can be made as to why Conservative State A did not participate, it is possible that upon learning the nature of the study a values based decision was made to end communication. Conservative State A, as far as this PI is aware, never emailed out the link for the study to its membership. The lack of participation of this conservative state may be suggestive of transphobia and a position of solidarity with the traditional gender binary.

There are a few practical considerations that may illustrate how and why Progressive State A (0.07%) had more participants than other state organizations. Progressive State A required the PI to provide his literature review and pay a fee prior to making the decision about distribution of the survey to their membership. The research fee is required of all survey requests to their organization and this financial exchange may result in more effort and care in eliciting participation from their membership. The request for participation was sent out on their professional letterhead in an aesthetically pleasing email. The PI was sent a copy of this email and offered the opportunity to make any corrections. Progressive State B (response rate 0.005%) and Conservative State B (response rate 0.02%) sent out the request for participation in emailed newsletters that contained multiple other topics and updates that may have distracted the potential participants from seeing or selecting the link to the survey. The request for participation was listed towards the bottom of these electronic newsletters with little to no introduction to the nature of the study. The nondescript nature of solicitation for participation may well have created a barrier to members' participation in the study.

The decision to send out the call for participants in Progressive State A was a fairly transparent process involving a panel review process that included the consideration of IRB materials. The three other NP organizations review processes were much less transparent and the final decision may have been made subjectively without a formal review process. The procedure of submitting pertinent information to the NP organizations was most streamlined with Progressive State A. A routine process of selecting and distributing survey studies at this organization may have also influenced the fact that there was a greater quantity of responses generated from this organization.

Unfortunately the video intervention tool was not widely viewed as the two states randomized to the intervention completed a total of nine surveys. There were too few responses from the two states randomized to the video intervention to describe its influence on survey responses. Arguably, the 55% of Progressive State A participants who indicated that they do not currently treat transgender patients, would benefit from seeing and hearing transgender identified individuals express their health care needs if these NPs had any interest in being competent care providers in the event a transgender person presents for care. Conservative State B and Progressive State B did view the video intervention. However responses from nine individuals is simply too limited a sample size to derive any conclusions from their responses. The video intervention-to-control comparison would certainly have been useful to better understand how having this minimal exposure to transgender individuals impacted HCPs' attitudes and willingness to gain additional training. Claiming its usefulness is contingent upon a statistically representative sample size, which was not achieved in this study.

Ethics of Ignorance

Arguably, the HCPs that want no information on how to provide competent transgender health care would benefit the transgender patient most if they were introduced and engaged in transgender health needs. HCP's who have no concept of what gender variance is, or what health care needs a transgender patient may have, are most likely to find it difficult to provide them care. If discomfort with the topic is the reason why a staff person or panel of individuals at Conservative State A blocked the survey, gaining information pertaining to the studies' rejection would be very illuminating. As mentioned previously, more individuals will be presenting to HCPs seeking transition related care and it is concerning to see indications that some HCPs will not be prepared with the basic concepts of gender variance. Because there is no data from Conservative State A, attempting to understand what and why the survey was blocked is entirely speculative.

Nonetheless in the surveys that were received from other states' NP organizations, many responses revealed ambiguity and a lack of knowledge regarding the SOC. It is quite possible that an unknown quantity of potential participants did not take the survey out of discomfort with the topic. Gathering information on attitudes, knowledge and willingness to gain continuing education on transgender health is imperative both in populations of HCPs who are very comfortable and knowledgeable and in those whose values do not align with gender variance and/or lack any knowledge of the SOC. NPs are not in control of who may schedule an appointment with them and the Code of Ethics for nurses very clear states that nurses establish "relationships and deliver nursing

services with respect for human needs and values, and without prejudice”

(Nursingworld.org, Provision 1.2, 2014, p. 3). The code of ethics is a dynamic document that informs and guides the care of nurses in any and all professional settings

(Nursingworld.org, 2014).

Numerous qualitative studies describe the experiences of transgender individuals; these studies uncover some glaringly unethical care delivery by HCPs (Sanchez, Sanchez & Danoff, 2009). The Code of Ethics offer detailed provisions that would not tolerate the mistreatment or refusal of care to a patient for any personal reason. The presence of HCP’s prejudice, transphobic remarks and actions towards transgender patients in the literature function as evidence of the chasm that exists between the professional values and ethical standards that guide nursing care and the actual care that is being delivered. Including the Code of Ethics for Nurses in this discussion serves to provide a clear framework for questioning what personal values about transgender health care held by NPs in this study and possibly by many NPs nationwide, may be in conflict with the ethical “obligations and duties of every individual who enters the nursing profession” (Nursingworld.org, 2014).

Ambiguous Responses

A number of questions were answered with the ambiguous response “neither agree nor disagree.” The uncertainty demonstrated by many responses could have several explanations. One explanation is that while all the questions were reviewed and revised by an expert panel to increase their validity, they have yet to be assessed for reliability. Surveys are often edited and revised after studying how each question scores

in reliability. Cronbach's alpha could be calculated to assess the internal consistency of the survey, but an adequate sample size is required.

Another possible explanation for the repetition of ambiguous responses throughout the survey in both Progressive State A and Conservative State B is that participants were not prepared to respond to the questions. Perhaps some of the NPs had never considered the concept of gender identity and its fluidity. If for example the statement, "I am comfortable with the idea of a person presenting to the public as a gender that does not match their sex assigned at birth" was one the NP had never considered, their response to the statement may be representative more of a lack of reflection on the topic than of a clear cut discomfort with the concept of gender variance in a public location. In addition, for NPs who have never knowingly met or worked with a trans-identified individual, they may have no concept of their comfort levels or beliefs associated with gender identity.

Yet another possibility of why so many responses were "neither agree nor disagree" may simply be social desirability bias. Conservative State B participants' viewed the video of transgender individuals expressing their needs. These NPs may feel that the desirable trait is to respond to the survey questions in a trans-affirmative manner, however their true attitude may be more closely aligned with traditional gender roles. If a participant wanted to compromise between their values and those that they perceived to be desirable, the most appropriate answer might be the most ambiguous of the options. Social desirability bias may be present in all responses.

Participants in this study expressed diversity in their attitudes towards transgender individuals, as evidenced by responses to questions targeting the attitudes construct. Responses reflected the full spectrum of attitudes from transphobia to trans-affirmative attitudes. Conservative state B responses to the statement “One’s gender is the same as one’s sex at birth” ranged from strongly agree (28%), neither agree nor disagree (28%), to strongly disagree (28%). Strongly agreeing with this statement may compromise the NP’s capacity to provide a transgender patient competent and respectful health care.

One need only imagine the complications that would arise when an NP who strongly believes that one’s sex is synonymous with one’s gender provides care to a Transman reporting pelvic pain. Would an NP holding this strong belief be respectful of the patient’s preferred name and pronoun? Would they be sensitive to emotional needs during his genital examination? Would they provide the same quality of clinical care that they would provide a cis-gendered person? Would this provider be aware of the SOC that exist to direct care for this patient? Would this NP encourage the patient to be fully participatory in decision-making regarding his care?

Transgender individuals may present for health care at any stage in their transition. There may be instances when the HCP senses gender variance when making the general assessment of the patient, but there will also be individuals who are at a stage in their transition when the HCP will only know what the patient feels comfortable sharing with them. The survey statement, “I currently provide health care to transgender patients” resulted in 28% of NPs from Conservative State B and 15% of NPs from Progressive State A choosing “Uncertain.” There are situations when knowing a patient

is transgender may not change the treatment plan, such as a diagnosis of Strep throat or Cellulitis. However, there are also many scenarios when not having the trust of the patient to offer this information will negatively impact the patient's health. Examples of negative consequences of being unaware one's patient is transgender are: missed opportunities for screening for cervical, prostate and breast cancer; unmonitored hormone levels potentially resulting in major health risks, and finally, missed opportunities to assess for mental health needs associated with gender dysphoria. HCPs need to create relationships based on trust and respect if they want to care holistically and responsibly for the patient.

Participants from Progressive State A compellingly indicated (54.4% strongly agreed and 36.7% somewhat agreed) that transition related care should be offered to individuals that desire it. Conservative State B was less committed to agreeing to this statement, nonetheless, 28.6% strongly agreed, 14.3% somewhat agreed, 42.9% neither agreed nor disagreed and 14.3% strongly disagreed. Such a small sample size cannot be representative or comparative, but it can be deduced that there are currently practicing NPs who believe transgender individuals should have access to the care they desire. The varied levels of support for patients requesting gender-affirming therapies may represent geopolitical differences.

Conclusion

The implications of having little to no understanding of the health needs, SOC and available resources for the transgender patient are great and could have far reaching negative health consequences as evidenced by the current literature. The study conducted

by Snelgrove et al., (2012), was the only study found that explored provider-sided perceptions of barriers to transgender health care. As there was such limited data on this topic, Snelgrove's study served as a starting point for the research presented in this article. To date this study is the second exploration of provider attitudes, and the only study to date assessing interest and willingness to treat transgender patients. While response rates are low, amassing 87 survey responses and creating a survey validated for content to assess attitudes, knowledge and willingness to gain additional training will hopefully serve as a foundation for future research.

In this study, NPs responded to attitudes assessment questions with great variability. The explanations for this ambiguity are speculative but offer opportunities for future research. Ethically informed nursing care may not be provided universally to this patient population. A large proportion of NPs in this sample express both the need and the desire to attain continuing education on the topic. Although the video intervention was not tested as planned due to the low response rates, the impact a short video or introductory training could make in improving transgender health care merits further investigation. NPs and other HCPs who choose to participate in continuing education opportunities focusing on transgender health are likely to improve the care they can provide this patient population. There is a demonstrated need for more competent HCP, and with this preliminary study we see NPs interest and need for more transgender health education. The next steps could involve piloting continuing education opportunities and conducting further research on the topic.

Limitations

Geopolitical comparisons are not possible due to low response rates. The intervention cannot be tested due to low response in all groups. Perhaps respondents are “ready recruits.” Ready recruits would bias findings in the survey because they may be selecting to complete the survey out of a personal or professional interest in the topic. Ready recruits could represent positive or negative bias. Social desirability bias was also discussed as a potential limitation. The survey was not tested for reliability. The results of the study do not represent a broad sample size thus the findings remain descriptive. Nonetheless, there is depth to the data that has been collected, opening the door to important future studies.

Recommendations for future study

The literature reveals evidence that HCP require more training to provide competent transgender health care and this pilot study attempts to assess that gap in care. This study uncovers NPs’ expressed interest in receiving continuing education on transgender health care. Future studies need to clarify attitudes and knowledge across a broader sample, in different geopolitical groups and further ascertain what teaching format preferences would be most effective (workshop, online seminar, short video, etc.). Future studies focused on sampling NPs in primary care settings would be particularly illustrative of the current state of transgender health attitudes and care provision in the setting most likely to receive requests to provide transgender health services. Gaining a better understanding of provider sided barriers to transgender health has the potential to greatly improve transgender health care outcomes. Future studies assessing the process

from initial request by the researcher, through the studies acceptance or rejection within professional NP associations would be illuminating as to how preconceived attitudes, informal review processes and variable participation impact data acquisition and scientific advancement.

Table 1.

Definition of Terms

Cis-gender	An umbrella term that encompasses anyone who feels their sex at birth matches their gender.
FtM	Female-to-Male, Transman, Transmale
Gender Dysphoria	Discomfort, anxiety or unhappiness about one's natal gender and the sense that assigned gender is different from internal gender. This term now replaces the term transgender in the DSM-5.
Gender Identity	One's personal view of one's own gender
Gender Role	The collection of society's assumptions, expectations, and traditions for how a person of a particular gender is supposed to act and be acted upon socially
Gender Transition	A complicated, multi-step process that can take years as transgender people align their anatomy with their sex identity and/or their gender expression with their gender identity.
MtF	Male-to-Female, Transwoman, Transfemale
Sex	A medical term used to describe the physical characteristics one has such as genitalia, chromosomes, and hormones. This category does not recognize the existence of inter-sexed bodies
Transgender	An umbrella term that encompasses anyone whose self-identity falls outside the gender they were assigned at birth.
Transphobia	The systemic oppression of transgender people because they do not fit societal expectations of how men and women are supposed to look and act.

(Kcavp.org.,2014) (Geneq.berkeley.edu.,2014).

Table 2.1

Provision of Transgender Health Care

Question	Progressive State A Control	Conservative State B Video Intervention
I currently provide health care to transgender patients	Yes (n-33) 41.3% No (n-32) 40% Uncertain (n-12) 15%	Yes (n-1) 14.3% No (n-4) 57.1% Uncertain (n-2) 28.7%

Table 2.2

Attitudes and Beliefs

Question	Progressive State A Control	Conservative State B Video Intervention
People are either men or women.	Strongly Agree (n-6) 7.6% Somewhat Agree (n-19) 24% Neither Agree nor Disagree (n-21) 26.6% Somewhat Disagree (n-17) 21.5% Strongly Disagree (n-16) 20.3%	Strongly Agree (n-2) 28.6% Somewhat Agree (n-1) 14.3% Neither Agree nor Disagree (n-3) 42.9% Somewhat Disagree (n-1) 14.3% Strongly Disagree (0) 0%
One's gender is the same as one's sex at birth.	Strongly Agree (n-2) 2.5% Somewhat Agree (n-11) 13.9% Neither Agree nor Disagree (n-14) 17.7% Somewhat Disagree (n-26) 32.9% Strongly Disagree (n-25) 31.7%	Strongly Agree (n-2) 28.6% Somewhat Agree (0) 0% Neither Agree nor Disagree (n-2) 28.6% Somewhat Disagree (n-1) 14.3% Strongly Disagree (n-2) 28.6%
I am comfortable with the idea of a person presenting to the public as a gender that does not match their sex assigned at birth.	Strongly Agree (n-44) 55.7% Somewhat Agree (n-24) 30.4% Neither Agree nor Disagree (n-8) 10.1% Somewhat Disagree (n-1) 1.3% Strongly Disagree (n-1) 1.3%	Strongly Agree (n-2) 28.6% Somewhat Agree (n-2) 28.6% Neither Agree nor Disagree (n-3) 42.7% Somewhat Disagree (0) 0% Strongly Disagree (0) 0%
I believe people who request gender affirming therapies such as hormone supplementation to transition genders should be offered these options.	Strongly Agree (n-43) 54.4% Somewhat Agree (n-29) 36.7% Neither Agree nor Disagree (n-4) 5.1% Somewhat Disagree (n-1) 1.3% Strongly Disagree (n-1) 1.3%	Strongly Agree (n-2) 28.6% Somewhat Agree (n-1) 14.3% Neither Agree nor Disagree (n-3) 42.9% Somewhat Disagree (0) 0% Strongly Disagree (n-1) 14.3%

Table 2.3.
Perceived Knowledge and Demonstration

As a Nurse Practitioner, I do not have the knowledge base to provide competent health care to transgender patients.	Strongly Agree (n-11) 13.9% Somewhat Agree (n-29) 36.7% Neither Agree nor Disagree (n-8)10.1 % Somewhat Disagree (n-19) 24.1% Strongly Disagree (n-11) 13.9% No answer (1)	Strongly Agree (n-1) 14.3% Somewhat Agree (n-2) 28.6% Neither Agree nor Disagree (n-2) 28.6% Somewhat Disagree (n-2) 28.6% Strongly Disagree (n-2) 28.6%
I have reviewed the Standards of Care as published by the World Professional Association for Transgender Health	Never (n-67) 85.9% Seldom (n-6) 7.7% Occasionally (n-4) 5.1% Regularly (n-0) 0%	Never (n-7) 100% Seldom (0) 0% Occasionally (0) 0% Regularly (0) 0%
The SOC for transgender patients require a minimum of two psychotherapy sessions prior to initiation of hormone therapy.	True (n-11) 14.1% False (n-3) 3.8% Uncertain (n-62) 79.5% No answer (n-2) 2.6%	True (n-2) 28.6% False (0) 0% Uncertain (n-5) 71.4%

Table 2.4.
Interest and Willingness

I am interested in reading the SOC for transgender patients	Strongly Agree (n-27) 34.6% Somewhat Agree (n-27) 34.6% Neither Agree nor Disagree (n-18) 23.1% Somewhat Disagree (n-3) 3.8% Strongly Disagree (n-2) 2.6%	Strongly Agree (n-3) 42.9% Somewhat Agree (n-1) 14.3% Neither Agree nor Disagree (0) 0% Somewhat Disagree (n-3) 42.9% Strongly Disagree (0) 0%
I need additional training to provide competent health care to transgender patients	Strongly Agree (n-34) 43.6% Somewhat Agree (n-28) 35.9% Neither Agree nor Disagree (n-9) 11.5% Somewhat Disagree (n-6) 7.7% Strongly Disagree (n-1) 1.3%	Strongly Agree (n-2) 28.6% Somewhat Agree (n-3) 42.9% Neither Agree nor Disagree (0) 0% Somewhat Disagree (n-2) 28.6% Strongly Disagree (0) 0%
I want additional training in transgender health care	Strongly Agree (n-24) 30.8% Somewhat Agree (n-30) 38.5% Neither Agree nor Disagree (n-17) 21.8% Somewhat Disagree (n-4) 5.1% Strongly Disagree (n-1) 1.3%	Strongly Agree (n-2) 28.6% Somewhat Agree (n-2) 28.6% Neither Agree nor Disagree (0) 0% Somewhat Disagree (n-3) 42.9% Strongly Disagree (0) 0%

Article References

- Ahrq.gov, (2014). The Number of Nurse Practitioners and Physician Assistants Practicing Primary Care in the United States. *Agency for Healthcare Research & Quality (AHRQ)*. [online] Available at: <http://www.ahrq.gov/research/findings/factsheets/primary/pcwork2/index.html> [Accessed 28 Sep. 2014].
- Andrist, L. (1997). A feminist model for women's health care. *Nursing Inquiry*, 4 (4), pp. 268-274.
- American Psychiatric Association. (2013). *Gender Dysphoria Fact Sheet*. [online] Retrieved from: <http://www.dsm5.org/Documents/Gender%20Dysphoria%20Fact%20Sheet.pdf> [Accessed: 17 Oct 2013].
- Carrera-Fernandez, M., Lameiras-Fernandez, M., Rodriguez-Castro, Y. and Vallejo-Medina, P. (2013). Spanish Adolescents' Attitudes toward Transpeople: Proposal and Validation of a Short Form of the Genderism and Transphobia Scale. *Journal of Sex Research*, (ahead-of-print), pp 1-13.
- Coleman, E., Bockting, W., Botzer, M., Cohen-Kettenis, P., DeCuypere, G., Feldman, J., ... Zucker, K. (2012). Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People, Version 7. *International Journal of Transgenderism*, 13(4), 165–232. doi:10.1080/15532739.2011.700873
- Ettner, R., Monstrey, S. and Eyler, A. (2007). *Principles of transgender medicine and surgery*. New York: Haworth Press.
- Fowler, M. (2008). *Guide to the code of ethics for nurses* (1st ed.). Silver Spring, MD: American Nurses Association.
- Gallup. (2012). *Alabama, North Dakota, Wyoming Most Conservative States*. [online] Retrieved from: <http://www.gallup.com/poll/160196/alabama-north-dakota-wyoming-conservative-states.aspx#1> [Accessed: 17 Nov 2013].
- Gates, G. (2011). How many people are lesbian, gay, bisexual and transgender? *UCLA School of Law Publication*.
- Geneq.berkeley.edu. (2014). *Gender Equity Resource Center*. Retrieved 23 April 2014, from <http://geneq.berkeley.edu/>.
- Goldberg, J. (2006). Training community-based clinicians in transgender care. *International journal of transgenderism*, 9 (3-4), pp. 219-231.

- Hanssmann, C., Morrison, D. and Russian, E. (2008). Talking, gawking, or getting it done: Provider trainings to increase cultural and clinical competence for transgender and gender-nonconforming patients and clients. *Sexuality Research & Social Policy*, 5 (1), pp. 5-23.
- Healthypeople.gov. (2014). *Lesbian, Gay, Bisexual, and Transgender Health - Healthy People*. [online] Retrieved from: <http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=25> [Accessed: 25 Mar 2014].
- Hill, D., & Willoughby, B. (2005). The development and validation of the genderism and transphobia scale. *Sex Roles*, 53(7-8), 531-544.
- Hughes, C. (2008). A Review of: “Transgender Health and HIV Prevention: Needs Assessment Studies from Transgender Communities across the United States. Edited by Walter Bockting & Eric Avery” Binghamton, NY: The Haworth Medical Press, 2005, 138 pages.
- Iom.edu (2013). *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding - Institute of Medicine*. [online] Retrieved from: <http://www.iom.edu/Reports/2011/The-Health-of-Lesbian-Gay-Bisexual-and-Transgender-People.aspx> [Accessed: 20 Oct 2013].
- Kcavp.org. (2014). *Kansas City Anti-Violence Project*. Retrieved 23 April 2014, from <http://www.kcavp.org/home>.
- Luders, E., Sánchez, F. J., Gaser, C., Toga, A. W., Narr, K. L., Hamilton, L. S., & Vilain, E. (2009). Regional gray matter variation in male-to-female transsexualism. *NeuroImage*, 46(4), 904–907. doi:10.1016/j.neuroimage.2009.03.048
- Neufeldt, V. (1994). *Webster's New World dictionary of American English* (3rd college ed.). New York: Prentice Hall.
- Nursingworld.org. (2014). *Code of Ethics for Nurses*. Retrieved 12 October 2014, from <http://www.nursingworld.org/codeofethics>
- Poteat, T., German, D., & Kerrigan, D. (2013). Managing uncertainty: A grounded theory of stigma in transgender health care encounters. *Social Science & Medicine*, 84, 22–29. doi:10.1016/j.socscimed.2013.02.019
- Sanchez, N. F., Sanchez, J. P., & Danoff, A. (2009). Health Care Utilization, Barriers to Care, and Hormone Usage Among Male-to-Female Transgender Persons in New York City. *American Journal of Public Health*, 99(4), 713–719. doi:10.2105/AJPH.2007.132035

Snelgrove, J., Jasudavicius, A., Rowe, B., Head, E. and Bauer, G. (2012). "Completely out-at-sea" with "two-gender medicine": A qualitative analysis of physician-side barriers to providing healthcare for transgender patients. *BMC Health Services Research*, 12 (1), p. 110-123.

References

Alegria, C. A. (2011). Transgender identity and health care: implications for psychosocial and physical evaluation. *Journal of the American Academy of Nurse Practitioners*, 23(4), 175–182. doi:10.1111/j.1745-7599.2010.00595.x

Ahrq.gov, (2014). The Number of Nurse Practitioners and Physician Assistants Practicing Primary Care in the United States. *Agency for Healthcare Research & Quality (AHRQ)*. [online] Available at: <http://www.ahrq.gov/research/findings/factsheets/primary/pcwork2/index.html> [Accessed 28 Sep. 2014].

Andrist, L. (1997). A feminist model for women's health care. *Nursing Inquiry*, 4 (4), pp. 268-274.

American Psychiatric Association. (2013). *Gender Dysphoria Fact Sheet*. [online] Retrieved from: <http://www.dsm5.org/Documents/Gender%20Dysphoria%20Fact%20Sheet.pdf> [Accessed: 17 Oct 2013].

Bockting, W., Miner, M., Swinburne Romine, R., Hamilton, A. and Coleman, E. (2013). Stigma, Mental Health, and Resilience in an Online Sample of the US Transgender Population. *American journal of public health*, 103 (5), pp. 943--951.

Bond, A. (2014, 20th of February). For Transgender People, a Good Doctor is Hard to Find. *Scientific American*, [web blog] Retrieved from: <http://blogs.scientificamerican.com/guest-blog/2014/02/20/for-transgender-people-a-good-doctor-is-hard-to-find/?print=true> [Accessed: 9 Apr 2014].

Carrera-Fernandez, M., Lameiras-Fernandez, M., Rodriguez-Castro, Y. and Vallejo-Medina, P. (2013). Spanish Adolescents' Attitudes toward Transpeople: Proposal and Validation of a Short Form of the Genderism and Transphobia Scale. *Journal of Sex Research*, (ahead-of-print), pp 1-13.

Coleman, E., Bockting, W., Botzer, M., Cohen-Kettenis, P., DeCuypere, G., Feldman, J., ... Zucker, K. (2012). Standards of Care for the Health of Transsexual, Transgender, and Gender-Nonconforming People, Version 7. *International Journal of Transgenderism*, 13(4), 165–232. doi:10.1080/15532739.2011.700873

- Domagk, S., Schwartz, R. and Plass, J. (2010). Interactivity in multimedia learning: An integrated model. *Computers in Human Behavior*, 26 (5), pp. 1024--1033.
- Ettner, R., Monstrey, S. and Eyler, A. (2007). *Principles of transgender medicine and surgery*. New York: Haworth Press.
- Fowler, M. (2008). *Guide to the code of ethics for nurses* (1st ed.). Silver Spring, MD: American Nurses Association.
- Gallup. (2012). *Alabama, North Dakota, Wyoming Most Conservative States*. [online] Retrieved from: <http://www.gallup.com/poll/160196/alabama-north-dakota-wyoming-conservative-states.aspx#1> [Accessed: 17 Nov 2013].
- Gates, G. (2011). How many people are lesbian, gay, bisexual and transgender? *UCLA School of Law Publication*.
- Geneq.berkeley.edu. (2014). *Gender Equity Resource Center*. Retrieved 23 April 2014, from <http://geneq.berkeley.edu/>.
- Goldberg, J. (2006). Training community-based clinicians in transgender care. *International journal of transgenderism*, 9 (3-4), pp. 219-231.
- Hanssmann, C., Morrison, D. and Russian, E. (2008). Talking, gawking, or getting it done: Provider trainings to increase cultural and clinical competence for transgender and gender-nonconforming patients and clients. *Sexuality Research & Social Policy*, 5 (1), pp. 5-23.
- Healthypeople.gov. (2014). *Lesbian, Gay, Bisexual, and Transgender Health - Healthy People*. [online] Retrieved from: <http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=25> [Accessed: 25 Mar 2014].
- Hill, D., & Willoughby, B. (2005). The development and validation of the genderism and transphobia scale. *Sex Roles*, 53(7-8), 531--544.
- Hughes, C. (2008). A Review of: "Transgender Health and HIV Prevention: Needs Assessment Studies from Transgender Communities across the United States. Edited by Walter Bockting & Eric Avery" Binghamton, NY: The Haworth Medical Press, 2005, 138 pages.
- Iom.edu (2013). *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding - Institute of Medicine*. [online] Retrieved from: <http://www.iom.edu/Reports/2011/The-Health-of-Lesbian-Gay-Bisexual-and-Transgender-People.aspx> [Accessed: 20 Oct 2013].

- Kcavp.org. (2014). *Kansas City Anti-Violence Project*. Retrieved 23 April 2014, from <http://www.kcavp.org/home>.
- Kelley, L., Chou, C., Dibble, S. and Robertson, P. (2008). A critical intervention in lesbian, gay, bisexual, and transgender health: Knowledge and attitude outcomes among second-year medical students. *Teaching and Learning in Medicine*, 20 (3), pp. 248--253.
- Luders, E., Sánchez, F. J., Gaser, C., Toga, A. W., Narr, K. L., Hamilton, L. S., & Vilain, E. (2009). Regional gray matter variation in male-to-female transsexualism. *NeuroImage*, 46(4), 904–907. doi:10.1016/j.neuroimage.2009.03.048
- Lurie, S. (2005). Identifying training needs of health-care providers related to treatment and care of transgendered patients: A qualitative needs assessment conducted in New England. *International Journal of Transgenderism*, 8 (2-3), pp. 93--112.
- Mayer, R. (2008). Applying the science of learning: evidence-based principles for the design of multimedia instruction.. *American Psychologist*, 63 (8), p. 760-769.
- Neufeldt, V. (1994). *Webster's New World dictionary of American English* (3rd college ed.). New York: Prentice Hall.
- Nursingworld.org. (2014). *Code of Ethics for Nurses*. Retrieved 12 October 2014, from <http://www.nursingworld.org/codeofethics>
- Poteat, T., German, D., & Kerrigan, D. (2013). Managing uncertainty: A grounded theory of stigma in transgender health care encounters. *Social Science & Medicine*, 84, 22–29. doi:10.1016/j.socscimed.2013.02.019
- Sanchez, N. F., Sanchez, J. P., & Danoff, A. (2009). Health Care Utilization, Barriers to Care, and Hormone Usage Among Male-to-Female Transgender Persons in New York City. *American Journal of Public Health*, 99(4), 713–719. doi:10.2105/AJPH.2007.132035
- Singh, A. and Burnes, T. (2010). Shifting the counselor role from gatekeeping to advocacy: Ten strategies for using the Competencies for Counseling with Transgender Clients for individual and social change. *Journal of LGBT Issues in Counseling*, 4 (3-4), pp. 241--255.
- Snelgrove, J., Jasudavisius, A., Rowe, B., Head, E. and Bauer, G. (2012). “Completely out-at-sea” with “two-gender medicine”: A qualitative analysis of physician-side barriers to providing healthcare for transgender patients. *BMC Health Services Research*, 12 (1), p. 110-123.

Socialresearchmethods.net (2013). *The T-Test*. [online] Retrieved from:
http://www.socialresearchmethods.net/kb/stat_t.php [Accessed: 1 Dec 2013]

Strongly Disagree

9. As a Nurse Practitioner, I do not have the clinical skills and knowledge base to provide health care to transgender patients.

Strongly Agree

Somewhat Agree

Neither Agree nor Disagree

Somewhat Disagree

Strongly Disagree

10. I have reviewed the Standards of Care for transgender patients as set forth by the World Professional Association for Transgender Health.

Never

Seldom

Occasionally

Regularly

11. The Standards of Care for transgender patients require a minimum of two psychotherapy sessions prior to initiation of hormone therapy.

True

False

Uncertain

12. I am interested in reading the Standards of Care for transgender patients.

Strongly Agree

Somewhat Agree

Neither Agree nor Disagree

Somewhat Disagree

Strongly Disagree

13. I need additional training to provide health care to transgender patients.

Strongly Agree

Somewhat Agree

Neither Agree nor Disagree

Somewhat Disagree

Strongly Disagree

14. I want additional training in transgender health care.

Strongly Agree

Somewhat Agree

Neither Agree nor Disagree

Somewhat Disagree

Strongly Disagree