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Obstetrician-Gynecologists' Knowledge of Health Disparities and Barriers among American Indian/Alaska Native Women in **Washington State**

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Abstract

Background: Health disparities between American Indian/Alaska Native (AI/AN) women and other races/ ethnicities have long been noted. Obstetricians-Gynecologists (Ob-Gyn) play a significant role in well-woman care and are often the first and most frequent point of medical contact for women, particularly among minority and low-income women.

Objective: This study aimed to assess Ob-Gyns' knowledge, beliefs, and practices related to health disparities among AI/AN women.

Method: A self-administered questionnaire, consisting of questions about knowledge, beliefs, and practices of health disparities among AI/AN women, was mailed to 722 members of The American College of Obstetricians and Gynecologists (ACOG) practicing in the state of Washington in September 2013-February 2014.

Results: The majority of respondents were knowledgeable about numerous health care disparities among non-pregnant AI/AN women, while slightly fewer were aware of disparities among pregnant AI/AN patients. Ob-Gyns reported low confidence in their training and knowledge of AI/AN culture and health disparities, but high confidence in their ability to treat AI/AN patients. Participants reported dissatisfaction with their AI/AN patients' breastfeeding rates.

Conclusion: Ob-Gyn knowledge of health disparities among AI/AN women is adequate. In spite of this, barriers to quality care are still present and increased identification and implementation of effective resources is needed.

Keywords

American Indian/Alaska Native; Disparities; Obstetrician-Gynecologist; Physician barriers

Cover Page Footnote

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Obstetrician-Gynecologists' Knowledge of Health Disparities and Barriers among American Indian/Alaska Native Women in Washington State

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ABSTRACT

<u>Background</u>: Health disparities between American Indian/Alaska Native (AI/AN) women and other races/ethnicities have long been noted. Obstetrician-Gynecologists (Ob-Gyns) play a significant role in well-woman care and are often the first and most frequent point of medical contact for women, particularly among minority and low-income women.

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<u>Conclusion</u>: Ob-Gyn knowledge of health disparities among AI/AN women is adequate. In spite of this, barriers to quality care are still present, and increased identification and implementation of effective resources is needed.

Keywords: American Indian/Alaska Native; Disparities; Obstetrician-Gynecologist; Physician barriers

INTRODUCTION

American Indian and Alaska Native (AI/AN) individuals experience poorer health relative to other races/ethnicities in the United States (Denny & Taylor, 1999; Indian Health Service, 2009) as well as high mortality rates for many common conditions (James, Schwartz, & Berndt, 2009). AI/AN individuals have the highest rates of diabetes and heart disease relative to all Americans (Barnes, Adams, & Powell-Griner, 2010). They also have increased rates of obesity (Schiller, Lucas, & Peregoy, 2012), hypertension (Barnes et al., 2010), and mortality from chronic liver disease (Suryaprasad, Byrd, & Redd, 2014) compared to non-Hispanic Whites (NHWs). Additionally, AI/AN individuals have high rates of alcohol use (Duran et al., 2004), tobacco use (Barnes et al., 2010), depression, and anxiety (Duran et al., 2004), relative to NHW Americans. Rates of illicit drug use (Substance Abuse and Mental Health Services Administration, 2010) and sexually transmitted diseases (STDs) (Kaufman, et al., 2007) are greater among AI/AN individuals than the national average. AI/AN women experience high levels of interpersonal violence (Evans-Campbell, Lindhorst, Huang, & Walters, 2006), and suicide rates are greater among AI/AN women than in NHW, non-Hispanic Black (NHB), or Asian/Pacific Islander women (Kochanek, Xu, Murphy, Minino, & Kung, 2012).

AI/AN women are disproportionately affected by many poor maternal and infant outcomes relative to NHW women, including higher rates of maternal death (Singh, 2010), gestational diabetes (Alexander, Wingate, & Boulet, 2008), prepregnancy obesity (Hinkle et al., 2012), postpartum hemorrhage (Cabacungan, Ngui, & McGinley, 2012), fetal alcohol syndrome (May, 1991), infant mortality, sudden infant death syndrome, unintentional injuries, stillbirth, preterm birth, low birth weight, and congenital malformations (Matthews & MacDorman, 2013). Rates of tobacco, alcohol, and illicit drug use during pregnancy are greater among AI/AN mothers relative to NHW mothers (Baldwin et al., 2002; Baldwin et al., 2009; Martin, English, Clark, Cilenti, & Kupper, 1996; Muckle et al., 2011). AI/AN mothers also have lower rates of breastfeeding initiation, duration, and exclusivity relative to other races/ethnicities except for African Americans (Hispanic or non-Hispanic) (Centers for Disease Control and Prevention, 2007).

Various barriers to healthcare exist for racial and ethnic minority women. Inequalities in access to care, healthcare quality, and insurance coverage contribute to poorer health outcomes among minority women. In the Institute of Medicine's (IOM) report of racial/ethnic healthcare disparities, results indicated that racial/ethnic minorities are less likely than Whites to receive needed medical services and routine treatment for diseases (IOM, 2002). In contrast, minorities are more likely than White patients to receive poorer quality care and unfavorable procedures (Smedley, Stith, & Nelson, 2003). Almost 30% of urban AI/ANs report not having health care coverage (Urban Indian Health Institute, 2008), and AI/ANs have the lowest rate of private healthcare coverage of any racial/ethnic group with only 41% of nonelderly AI/ANs having private insurance (James et al., 2009). Additionally, physicians' lack of cultural competence and biases in medical decision-making may also impact healthcare disparities. Research suggests that physicians' diagnostic and treatment decisions, as well as their overall attitudes about their patients, are influenced by patients' race/ethnicity (IOM, 2002). Furthermore, AI/AN patients' nonadherence to medical recommendations may reflect differences in cultural beliefs, as well as an extensive history of racism and maltreatment of AI/AN groups, which has resulted in the

distrust of White physicians and the medical community at large (Guadagnolo, Cina, & Helbig, 2009; Hunt, Gaba, & Lavizzo-Mourey, 2005).

Obstetrician-Gynecologists (Ob-Gyns) play an integral role in well-woman care for pregnant and non-pregnant women. They are often the first and most frequent point of medical contact for women (Hale, 1995; Scholle & Kelleher, 2003), and many women report that their Ob-Gyn is their only source of routine health care (Leddy, Lawrence, & Schulkin, 2011). Low-income, non-White women, who are younger, less educated, and who have small children are more likely to utilize their Ob-Gyn as a primary care provider (Henderson, Weisman, & Grason, 2002). AI/AN women in particular are less likely than others to regularly see a doctor and often use clinics or health centers as their usual place of care (Barnes et al., 2010).

Little is known about physician awareness of health disparities among AI/AN women. The purpose of the present study was to assess physicians' knowledge, beliefs, and screening practices regarding physical and mental health disparities among pregnant and non-pregnant AI/AN women. The study also sought to determine barriers to providing adequate health care to AI/AN patients and to identify resources needed to improve the quality of care offered to these patients. Ob-Gyns' perceived knowledge, training, and confidence in treating this population was explored. We targeted Ob-Gyns in order to gather information from physicians most likely to see female patients and with specialty training regarding women's health and pregnancy. We anticipated that less than half of Ob-Gyns would report adequate knowledge of AI/AN health disparities, that they would report low rates of breastfeeding among their AI/AN patients, and that respondents would identify similar barriers to care among AI/AN patients as those identified in prior studies (e.g., non-adherence to medical recommendations and inadequate patient insurance coverage) (Call, McAlpine, & Johnson, 2006). Additional exploratory questions were included to better categorize care provided to AI/AN women as well as knowledge and practices of Ob-Gyns.

METHOD

Study Design

We performed a cross-sectional survey study of ACOG members in the state of Washington. The ACOG membership database was used to identify all ACOG members with a Washington State address on file in the month of July 2013. Initial questionnaires were mailed in September 2013. Up to four additional follow-up questionnaires were mailed to non-respondents from November 2013 through February 2014. Mailing lists were updated before each follow-up mailing to reflect only those ACOG members who had not responded at that time. Participation was voluntary, with no compensation offered to participants. This study was approved by the University of Washington Human Subjects Division.

Data Collection

The study team sent paper mailings, which included a cover letter, a questionnaire, and a stamped postage paid envelope, via postage mail to eligible participants in September 2013. The purpose, risks, and benefits of the study were outlined in the accompanying cover letter. Return of the completed questionnaire indicated consent to participate in the study. Respondents were not provided with information on these issues and were instructed not to look up any additional information.

Survey

A team of researchers familiar with health disparities among AI/AN women designed the questionnaire. The questionnaire was developed based upon PubMed and MEDLINE literature searches of relevant research in health care disparities among AI/AN women in the United States (e.g., Castor et al., 2006; Duran et al., 2004; James et al., 2009) as well as a review of national statistics provided by the CDC and Indian Health Services (IHS). Literature searches of barriers to care were also conducted to inform survey development (e.g., Call et al., 2006; Guadagnolo et al., 2009; Hunt et al., 2005). The survey was pilot tested on a sample of practicing Ob-Gyns and necessary adjustments to ensure clarity were made before distribution. Such adjustments included more streamlined questions, clearer separation of health disparity questions regarding pregnant versus non-pregnant AI/AN women, and the addition of more questions assessing barriers to care and resources needed to help Ob-Gyns improve care delivered to AI/AN women.

The questionnaire consisted of 32 questions pertaining to: (1) provider and patient demographics; (2) providers' actual knowledge of health disparities among non-pregnant and pregnant AI/AN women; (3) screening and counseling practices of major health concerns among non-pregnant and pregnant AI/AN women; (4) perceived and actual knowledge and training in AI/AN health disparities and culture; (5) beliefs regarding barriers to care for AI/AN women and resources that may help to alleviate these barriers; (6) training related to AI/AN culture and health disparities. Knowledge about AI/AN health risks was assessed using a 4-point Likert scale. Physicians were asked whether the prevalence of certain conditions among AI/AN patients was above average, average, below average, or don't know when compared to the general female population in the United States.

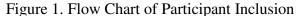
In the initial questionnaire, respondents who reported that their patient population consisted of less than 5% AI/AN women were instructed to complete only the demographics and actual knowledge portions of the survey (sections 1 and 2). Because very few respondents reported having a patient population with at least 5% AI/AN women, the survey instructions were revised for subsequent mailings, instructing participants who reported having any AI/AN women in their patient population to complete the entire survey. Participants who reported that their patient population included no AI/AN women completed only the demographics, actual knowledge, and perceived knowledge, confidence, and training portions of the survey (sections 1, 2, and 5). Demographic questions included the provider's year of birth, gender, race/ethnicity, number of years in practice, type of practice, primary medical specialty, practice location, and racial/ethnic distribution of patient population.

Data were analyzed using a statistical software package, SPSS 20.0 (IBM SPSS Statistics 20.0, IBM Corp.©, Armonk, NY). Descriptive statistics were computed for measures used in the analyses and reported as mean values ± standard deviation. Chi-square tests were performed for categorical analyses. One-way analysis of variance (ANOVA) was used to compare group means of continuous variables.

RESULTS

Surveys were sent to 722 active ACOG members in the state of Washington. Twelve participants were unreachable by mail (i.e., mail returned to sender). A total of 258 participants responded, for a response rate of 36.3%. Of these, 16 were retired and four reported practicing in a state other than Washington. Thus, these participants were excluded from data analyses. The

final number of participants included in analyses was 238 (see Figure 1). All respondents included in analyses were practicing Ob-Gyns in Washington. Sixty-nine (29%) respondents reported having no AI/AN patients in their practices, 165 (69%) reported seeing AI/AN patients, and four (4%) did not answer this question. Respondents who reported having AI/AN patients in their practices were more likely to be White and report their primary medical specialty as "obstetrics only" or "other", but did not vary in terms of other demographic variables. Additional participant demographic information can be found in Table 1.



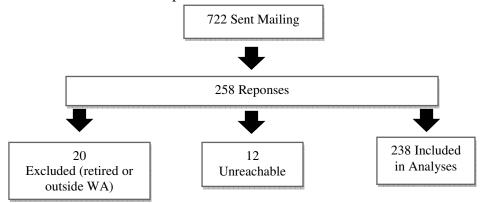


Table 1. Participant Demographics

| Demographic Characteristics | Participants with AI/AN Patients; n=165 | Participants with no AI/AN Patients; n=69 | P value | |
|------------------------------|---|---|---------|--|
| Gender | | | | |
| Female | 63.0% | 73.9% | .108 | |
| Age, mean (SD) | 51.8 (±10.80 | 49.7 (±10.97) | .183 | |
| Years in practice, mean (SD) | 18.5 (±10.78) | 16.2 (±10.59) | .131 | |
| Type of practice (%) | | | .188 | |
| Solo practice | 4.2 | 8.7 | | |
| Ob-Gyn partnership /group | 29.1 | 31.9 | | |
| Multi-specialty group | 26.7 | 15.9 | | |
| University faculty and | 13.9 | 10.1 | | |
| practice | | | | |
| HMO (staff model) | 10.9 | 8.7 | | |
| Other | 15.2 | 24.6 | | |
| Primary specialty (%) | | | .021* | |
| General Ob-Gyn | 63.6 | 62.3 | | |
| Obstetrics only | 17.0 | 8.7 | | |
| Gynecology only | 14.5 | 13.0 | | |
| Other | 4.8 | 15.9 | | |
| Practice location (%) | | | .446 | |
| Urban, non-inner city | 30.3 | 39.1 | | |
| Urban, inner city | 25.5 | 17.4 | | |
| Rural | 12.7 | 8.7 | | |
| Suburban | 29.1 | 33.3 | | |
| Other | 2.4 | 1.4 | | |
| Ob-Gyn race (%) | | | .040* | |
| Non-Hispanic, White | 81.8 | 72.1 | | |
| Asian/Pacific Islander | 7.3 | 19.1 | | |
| Multiracial | 4.2 | 8.8 | | |
| Hispanic | 3.0 | 0.0 | | |
| AI/AN | 1.2 | 0.0 | | |
| African American | 0.6 | 0.0 | | |
| Other | 1.8 | 0.0 | | |

^{*}p < .05

Participants also provided estimates regarding the racial and ethnic distribution of their patient populations, their patients' ages, and the insurance status of their patients. On average, participants who cared for AI/AN patients reported that 3.8% of their patients were AI/AN, slightly higher than the national average of approximately 2% (U.S. Census Bureau, 2012). These participants reported having a greater number of Hispanic patients and patients with public or no insurance coverage in their practices. Physicians who did not report seeing AI/AN patients

estimated that a greater proportion of their patients were NHW or Asian/Pacific Islander. Additional patient demographic information can be found in Table 2.

Table 2. Estimated Patient Demographics

| Demographic | ographic Participants with AI/AN Participa | | P value |
|--------------------------|--|--------------------------|---------|
| Characteristics | Patients; $n = 165$ | AI/AN Patients; $n = 69$ | |
| | (mean percentage, range) | (mean percentage, range) | |
| Patient race | | | |
| Non-Hispanic | 56.4 (5 – 95) | 65.5 (10 –100) | .002** |
| White | | | |
| Hispanic | 16.6(0-80) | 10.0(0-34) | .002** |
| Asian/Pacific | 11.0(0-60) | 14.2(0-50) | .032* |
| Islander | | | |
| African American | 7.9(0-35) | 6.2(0-80) | .183 |
| AI/AN | 3.8(1-30) | 0 | **000 |
| Multiracial | 3.4(0-30) | 3.7(0-40) | .691 |
| Other | .43(0-20) | 1.5(0-40) | .142 |
| Patient age | | | |
| <18 years old | 7.9(0-70) | 6.6(0-85) | .354 |
| 18-44 years old | 53.4 (0 – 100) | 57.6 (0 – 100) | .254 |
| 45-64 years old | 25.5 (0 – 90) | 26.0 (0 – 90) | .840 |
| 65 years and older | 12.2(0-95) | 9.3(0-50) | .151 |
| Patient insurance status | | | |
| Private insurance | 49.6 (0 – 100) | 66.3 (0 - 100) | **000 |
| Public insurance | 43.4 (0 – 100) | 31.0(0-100) | .001** |
| Uninsured | 6.5(0-50) | 3.1(0-20) | .008** |

^{*}p < .05, **p < .01

Knowledge of General Health Disparities

Respondent knowledge of health care disparities among AI/AN women was assessed. Participants were asked to rate the prevalence of various physical and mental health concerns among the AI/AN female population in the United States relative to the general female population in the United States. Contrary to our hypothesis, the majority of all respondents (including those who did not see AI/AN patients) knew that AI/AN women in the United States are at above average risk for almost all of the listed health concerns on the questionnaire including: diabetes (91.4%), obesity (84.7%), alcohol use (85.9%), physical violence (77.8%), depression (75.5%), sexual violence (70.5%), tobacco use (69.5%), suicide (67.0%), tuberculosis (63.1%), and illicit substance use (56.9%). Almost half of respondents knew that AI/AN women are at above average risk for STDs (49.8%), anxiety disorders (47.6%), and Hepatitis C (46.8%).

We examined differences in knowledge scores between participants who reported having AI/AN patients within their practices and those who did not in order to determine whether those caring for AI/AN patients were more knowledgeable. Results indicated that participants with AI/AN patients were more likely to correctly identify AI/ANs' increased risk for diabetes (χ^2 (1, n = 229) = 7.89, p = .005) and sexual violence (χ^2 (1, n = 230) = 4.77, p = .029). Knowledge

scores between these two groups did not significantly differ regarding other health conditions. Among all responding participants, however, female Ob-Gyns were significantly more knowledgeable than males regarding AI/ANs' increased risk for the following health concerns: diabetes (χ^2 (1, n = 233) = 6.39, p = .011); alcohol use (χ^2 (1, n = 234) = 5.13, p = .024); obesity (χ^2 (1, n = 235) = 6.65, p = .010); physical violence (χ^2 (1, n = 234) = 7.43, p = .006); depression (χ^2 (1, n = 233) = 5.69, p = .017); sexual violence (χ^2 (1, n = 234) = 5.02, p = .025); tobacco use (χ^2 (1, n = 233) = 3.94, p = .047); and anxiety (χ^2 (1, n = 233) = 5.02, p = .025).

Knowledge of Pregnancy-Related Health Disparities

Participants were also asked to rate the prevalence of several health concerns among pregnant AI/AN women in the United States relative to all pregnant women in the United States. The majority of all respondents knew that pregnant AI/AN women in the United States are at increased risk for alcohol use (79.0%), obesity (77.8%), infant mortality (64.6%), tobacco use (64.2%), preterm birth (62.3%), low birth weight (62.0%), and illicit substance use (56.6%). Slightly less than half of respondents knew that pregnant AI/AN women are at greater risk for STDs (48.2%), Hepatitis C (45.8%), stillbirth (44.5%), and maternal death (40.0%). Only 22.3% and 21.0% of participants knew that AI/AN infants are at increased risk for congenital malformations and maternal hemorrhage, respectively. Participants who reported having no AI/AN patients in their practices were more knowledgeable than those who reported caring for AI/AN women regarding AI/ANs' increased risk for maternal hemorrhage (χ^2 (1, n = 225) = 5.99, p = .014). No differences were observed between male and female respondents on these questions.

Prevalence of Health Concerns among Patients

Finally, participants with AI/AN patients were asked to rate the prevalence of the previously mentioned health concerns among their non-pregnant and pregnant AI/AN patients relative to their general patient population of non-pregnant and pregnant women. Over half of respondents reported that their non-pregnant AI/AN patients carried a higher prevalence of diabetes (77.0%), obesity (79.7%), hypertension (58.9%), depression (59.5%), physical violence (62.2%), sexual violence (54.1%), tobacco use (59.5%), and alcohol use (70.3%) compared to their general population of non-pregnant patients. Less than half stated that their non-pregnant AI/AN patients were at higher risk of suicide (48.6%), illicit substance drug use (48.6%), Hepatitis C (43.2%), STDs (41.9%), anxiety disorders (35.1%), and tuberculosis (32.4%). The majority of participants believed that their pregnant AI/AN patients were at increased risk for obesity (75.0%), alcohol use (68.8%) illicit substance use (60.9%), tobacco use (59.4%), and hypertension (57.8%) relative to their general population of pregnant patients. Slightly less than half of respondents believed that their pregnant AI/AN patients were at greater risk for low birth weight (49.2%), preterm birth (47.7%), infant mortality (42.2%), STDs (40.6%), and Hepatitis C (43.8%). Only 23.8% and 17.2% of respondents reported that their pregnant AI/AN patients were at greater risk of stillbirth and maternal death, respectively.

Perceived Knowledge, Training, and Confidence

While less than half of all participants believed that their knowledge of health disparities among AI/AN women was adequate or comprehensive, and even fewer believed that their residency/general medical training in AI/AN health disparities or knowledge about AI/AN culture was adequate or comprehensive, the majority of respondents reported that their

confidence in their abilities to treat AI/AN patients was adequate or comprehensive (see Figure 2).

Significantly more male respondents perceived their knowledge of AI/AN health disparities as adequate relative to female respondents (51% men vs. 38% women, χ^2 (4, n = 122) = 12.47, p = .014), and no differences were observed between those who see AI/AN patients and those who do not.

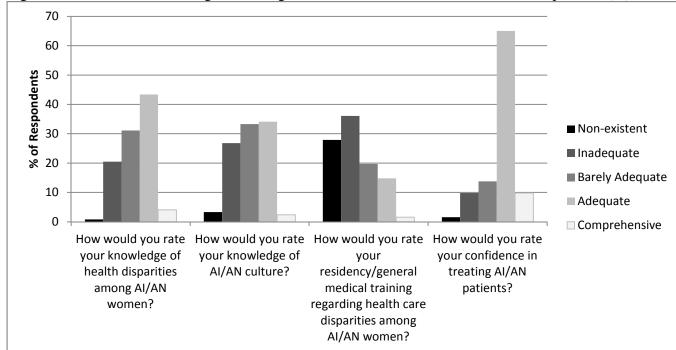


Figure 2. Perceived Knowledge, Training, and Confidence in AI/AN Health Disparities (%)

Reported knowledge regarding health disparities in AI/AN women was positively correlated with correctly answering questions regarding general health disparities among AI/AN women and health disparities among pregnant AI/AN women (r = .260, n = 83, p = .019; and r = .281, n = 81, p = .011, respectively). Confidence in treating AI/AN women was not, however, correlated with increased knowledge regarding these disparities. The proportion of AI/AN patients seen by respondents was correlated with confidence such that Ob-Gyns who reported seeing more AI/AN patients were less confident in their ability to treat AI/AN patients (r = -.264, n = 90, p = .012).

Specific Practices

Participants who saw AI/AN patients were asked about their screening and counseling practices regarding various physical and mental health concerns among their non-pregnant AI/AN patients during their annual visits (see Table 3). Over half of respondents reported that they screen for and/or discuss tobacco use (60.8%), hypertension (55.4%), and alcohol use (55.4%) always or most of the time with their AI/AN patients during annual visits. Approximately half of participants reported that they routinely screen for and/or discuss obesity, illicit drug use, and STDs with AI/AN patients during annual visits, whereas approximately two-

fifths of respondents reported that they always screen for and/or discuss mental health concerns and diabetes.

As hypothesized, participants reported low rates of breastfeeding among their AI/AN patients. Respondents estimated that, of their AI/AN patients who have delivered a baby, 41%, 21%, and 10% choose to exclusively breastfeed for three, six, and 12 months respectively, whereas 33% choose to partially breastfeed, and 30% choose to exclusively formula feed. Similar rates were reported when participants were asked to estimate AI/AN breastfeeding continuation rates at three, six, and 12 months. Very few respondents reported being very satisfied (5.2%) or somewhat satisfied (20.7%) with the proportion of their AI/AN patients who breastfeed.

Table 3. Frequency of Respondent Screening and Counseling Practices for Health Concerns among Their Non-Pregnant AI/AN Patients (%)

| | Never | Rarely | Sometimes | Fairly Often | Always/ Most of the time |
|------------------------------------|-------|--------|-----------|-----------------|--------------------------------|
| Tobacco use | 1.4 | 6.8 | 6.8 | 24.3 | 60.8 |
| Hypertension | 1.4 | 4.1 | 10.8 | 28.4 | 55.4 |
| Alcohol use | 1.4 | 9.5 | 13.5 | 20.3 | 55.4 |
| Obesity | 1.4 | 5.4 | 8.1 | 32.4 | 52.7 |
| Illicit substance use | 1.4 | 9.5 | 13.5 | 23.0 | 52.7 |
| STDs | 1.4 | 11.0 | 17.8 | 19.2 | 50.7 |
| Mental health concerns (e.g., | 1.4 | 9.5 | 20.3 | 27.0 | 41.9 |
| depression, anxiety, suicide risk) | | | | | |
| Diabetes | 1.4 | 4.1 | 13.5 | 41.9 | 39.2 |

Provider and Patient-Related Barriers to Adequate Care for AI/AN Women

Respondents were asked about provider and patient-related barriers to adequate health care for AI/AN women (see Table 4). The most commonly endorsed major barriers to care were lack of exposure to this population, inadequate training regarding this population, and inadequate patient insurance coverage. Patient nonadherence to medical recommendations and lack of sufficient knowledge about this population were also identified as major barriers to providing health care. Respondents who care for AI/AN patients were more likely than those who do not to report patient nonadherence as a major barrier to care (χ^2 (2, n = 118) = 11.32, p = .003). Other barriers identified by participants in qualitative responses included: restrictions by IHS, late referrals, denied services, patient mistrust in physicians and the health care system, patient geographic and cultural isolation, systemic poverty, and racism.

Table 4. Frequency of Provider and Patient-Related Barriers to Adequate Health Care for AI/AN Women (%)

| | Major | Minor | Not a |
|--|---------|---------|---------|
| | Barrier | Barrier | Barrier |
| Lack of exposure to this population | 50.4 | 32.2 | 17.4 |
| Inadequate training about this population | 44.1 | 44.1 | 11.9 |
| Inadequate patient insurance coverage | 43.2 | 35.6 | 21.2 |
| Patient nonadherence to medical recommendations | 41.5 | 45.8 | 12.7 |
| Lack of sufficient knowledge about this population | 41.0 | 50.4 | 8.5 |
| Patients' inability to see a specialist | 25.6 | 55.6 | 18.8 |
| Language barriers | 6.8 | 40.7 | 52.5 |

Resources Needed to Improve Health Care Quality

Respondents identified resources that they believed would help improve the quality of health care services offered to AI/AN patients. Participants' responses to these questions are detailed in Table 5. Additional resources suggested by respondents in narrative responses included an ACOG Bulletin addressing AI/AN disparities, a course presented by IHS-based clinicians with data from current IHS patients, local hospital or in-office meetings with health care professionals well-versed in issues pertinent to this population, and hospital meetings with local AI/AN women.

Table 5. Resources that Would Help Improve Quality of Health Care Services Offered to AI/AN Patients (%)

| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|-------------------|-------|---------|----------|----------------------|
| Interpreter/Translator | 13.2 | 9.9 | 32.2 | 28.9 | 15.7 |
| Grand rounds | 11.7 | 44.2 | 35.0 | 6.7 | 2.5 |
| Web-based resources/website materials | 11.6 | 48.8 | 26.4 | 9.1 | 4.1 |
| CME at ACOG annual clinical meeting | 11.5 | 41.0 | 33.6 | 10.7 | 3.3 |
| Translated pamphlets | 11.1 | 22.2 | 40.2 | 18.8 | 7.7 |
| CME course at ACOG annual district meeting | 9.9 | 46.3 | 29.8 | 10.7 | 3.3 |
| ACOG CME/post-graduate cultural | 9.2 | 48.3 | 34.2 | 4.2 | 4.2 |
| training course | | | | | |
| Webinars | 5.0 | 33.1 | 43.8 | 13.2 | 5.0 |
| CD-ROMS | 4.1 | 30.6 | 44.6 | 15.7 | 5.0 |
| Videos | 3.4 | 27.7 | 54.6 | 10.1 | 4.2 |

*CME = continuing medical education; *ACOG = American College of Obstetricians and Gynecologists

DISCUSSION

We found that Washington State Ob-Gyns demonstrate adequate knowledge of AI/AN health disparities as well as high confidence in their ability to treat AI/AN women. However, Ob-Gyns' perceived knowledge of health disparities and cultural training is low. This study also

suggests that AI/AN women make up a relatively small proportion of the patients seen by Washington State Ob-Gyns, although it is similar to the national population.

It appears that there is a discrepancy in providers' perceived cultural competency of AI/AN health and their comfort in treating this population such that, despite low perception of cultural competency, physicians nonetheless reported being comfortable treating AI/AN women. Interestingly, male respondents were more likely than female participants to perceive their knowledge of AI/AN disparities as adequate; however, actual knowledge scores indicated that females were more knowledgeable about several AI/AN health disparities.

Patient-related barriers identified by respondents, such as inadequate insurance coverage, non-adherence to medical recommendations, geographic location, discrimination, and systemic poverty, reflect long-standing disparities among AI/ANs (Call et al., 2006). Almost 30% of urban AI/ANs report not having health care coverage (Urban Indian Health Institute, 2008), and AI/ANs have the lowest rate of private health care coverage of any racial/ethnic group with only 41% of nonelderly AI/ANs having private insurance (James et al., 2009). Nonadherence to medical recommendations in part reflects an extensive history of mistrust of physicians and the health care system and differences in cultural beliefs (Guadagnolo et al., 2009; Hunt et al., 2005).

Consistent with national statistics (Muckle et al., 2011), the majority of participants were also dissatisfied with the rates of breastfeeding among their AI/AN patients. This represents an area in which Ob-Gyns can play a significant role in reducing health disparities by beginning breastfeeding discussions during early prenatal care visits, particularly for women with inconsistent prenatal care (Feijen-de Jong et al., 2012; Partridge, Balayla, Holcroft, & Abenhaim 2012).

Respondents identified resources that they believed would help improve the quality of health care services offered to AI/AN women. Based on their responses, increasing communication between Ob-Gyns, IHS-based clinicians, and AI/AN patients through the organization of meetings and IHS-based courses may aid in the development of resources to eliminate barriers to care and ultimately, bridge the disparities gap. Participants also suggested that ACOG web-based resources and continuing medical education courses could improve the quality of care for AI/AN women.

The purpose of this study was to explore Ob-Gyns' knowledge and perceptions regarding health disparities among AI/AN women. This study is unique in assessing Ob-Gyn knowledge of health disparities among AI/AN patients. The limited response rate (36.3%) may reflect a lack of knowledge or interest among non-respondents regarding AI/AN health disparities. As with all survey research, there is a possibility of non-response bias. Our results may not be generalizable to Ob-Gyns across the United States given that our sample was geographically limited to Ob-Gyns practicing in Washington. It is possible that Ob-Gyns in other states have different experiences or knowledge, or that AI/AN patients in Washington may differ from AI/AN individuals in other regions based on tribal affiliation, lifestyle, and other factors. Little is known, however, regarding how these variations impact physician care of AI/AN populations, and this is the first study that evaluates Ob-Gyn perception of care. While over one-quarter of respondents reported having at least 5% of AI/AN patients in their practice, it is possible that other Ob-Gyns who serve a larger proportion of the AI/AN population in Washington were not included or that variations in the proportion of AI/AN patients reflect geographical variations in

the proportion of AI/AN people in the sampled locations of Washington. It is also possible that our results reflect a larger healthcare problem that the AI/AN population is underserved.

In conclusion, our findings indicate that the majority of participants were knowledgeable about numerous health disparities among AI/AN women and felt confident providing care to this population. Despite this, participants reported concerns about the extent of their knowledge and training. It is possible that while these Ob-Gyns feel confident treating the medical conditions that their patients present with, they may not be fully aware of the cultural barriers to care. Previous studies have emphasized the importance of well-woman care as a major source of preventative care for females (Jones, Cason, & Bond, 2002; Morgan, Anderson, Lawrence, & Schulkin, 2012; Morgan, Lawrence, & Schulkin, 2010). Ob-Gyns have a unique opportunity to screen and educate AI/AN patients regarding their increased health risk profile. Future efforts focusing on developing resources and programs to bridge the gap in disparities and to encourage physician awareness and skills in patient education may help to reduce health disparities among AI/AN patients who see Ob-Gyns.

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