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Female Farmworkers' Health During Pregnancy Health Care Providers' Perspectives

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Of the estimated 3.5 million migrant and seasonal farmworkers in the United States, approximately 21 % are women. Overall, female farmworkers are of childbearing age; in 2001-2002, the average age was 33, and half were younger than 31 (Carroll, Samardick, Bernard, Gabbard, & Hernandez, 2005). The effect of agricultural work on reproductive health outcomes has been studied to a limited extent, with conflicting results. Late prenatal care and low weight gain, for instance, have been identified as risks for Hispanic farmworkers (Centers for Disease Control and Prevention, 1997). Currently, Hispanic women in the United States have a higher incidence of preterm birth but a lower incidence of low birth weight than their non-Hispanic White counterparts. Conversely, Hispanic women have a higher incidence of macrosomia (high infant body weight) than other ethnic groups, a statistic only partly explained by the increased prevalence of gestational diabetes in this group (March of Dimes, 2012).

Pesticides have received the most attention among all potential occupational hazards that could affect the health of pregnant farmworkers. Yet, even the results of pesticide studies are conflicting (De Roos et al., 2005). Some data have pointed to the possibility of impaired fecundability (i.e., the probability of being pregnant in a single menstrual cycle) and increased incidence of spontaneous abortions, stillbirths, preterm births, and low birth weight (Hanke & Jurewicz, 2004). Other studies examining these same variables have not demonstrated increased risk (Bretveld, Zielhuis, & Roeleveld, 2006; Bretveld et al., 2008; Whyatt et al., 2004; Zhu, Hjollund, Andersen, & Olsen, 2006). The demonstration of causal relationships between pesticide exposure and reproductive health is methodologically challenging. Limited understanding of the cumulative, additive, and synergistic effects of multiple sources of exposure to multiple pesticides among high-risk populations complicates these studies (Committee on Environmental Justice, Institute of Medicine, 1999; World

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Health Organization, 2009). Moreover, gestational age at the time of exposure is also confounding (Calvert et al., 2007; Colborn, 2004).

RESEARCH FRAMEWORK

To advance understanding of worker health and safety issues in this vulnerable population, university investigators partnered with community organizations to conduct community-based participatory research about pregnancy health among workers in Florida ferneries and nurseries. A long-term objective of this study is to influence public policy regarding appropriate occupational and environmental health and safety, worker protection, and training policies for pregnant farmworkers. The findings reported in this article served as a preliminary step in developing a comprehensive program of research to address the specific occupational and environmental hazards associated with pregnant women working in agriculture. Focus groups and interviews were conducted with both female farmworkers of childbearing age (Flocks, Kelley, Economos, & McCauley, 2012) and health care providers working in clinics in the targeted communities. *This article reports the health care providers' perspectives regarding health care for pregnant farmworkers.*

As context for this report, interviews were conducted in health centers located in three counties in central Florida. In 2011, the birth rates for these counties were 13.3 per 1,000 for Orange County (population 1.1 million), 11.4 per 10,000 for Putnam County (population 74,052), and 9.4 per 1,000 for Volusia County (population 495,400) (Florida Vital Statistics Annual Report 2011,2012). In 2011, Florida, overall, had a birth rate of 11.2 per 1,000 (Hamilton, Martin, & Ventura, 2012). The approximate number of prenatal patients seen annually in each clinic was 1,200 in Orange County, 6,000 in Putnam County, and 1,000 in Volusia County. These numbers were estimates by providers in the clinics included in the study. From a statewide perspective, *27.5% of live births in Florida are to mothers of Hispanic origin (Hamilton et al., 2012).* These numbers reflect the Hispanic population as a whole and not necessarily the specific communities targeted in this study, the nursery workers in Putnam County and Orange County and the fernery workers in Volusia County.

METHODS

Potential study participants were identified using four sources: (1) research team members from the Farmworker Association of Florida (FWAF), (2) referrals from community residents known to the FWAF, (3)\health care providers serving as consultants on the project, and (4) discussions with individuals from the Migrant Clinicians Network.

Eight health care providers working in the targeted clinics agreed to participate; they were interviewed about their knowledge of, perceptions about, and practices related to farmworker health during pregnancy. Interviews were conducted in three different settings with four obstetricians, two advanced practice nurses, one physician's assistant, and one registered nurse.

Questions used to guide the structured interviews included:

1. During which trimester do you usually see pregnant farmworkers for their first prenatal visit?
2. Do you believe that access to prenatal care is readily available in your area? Why or why not?
3. What advice do you give pregnant farmworkers about pesticide exposure during pregnancy?
4. What recommendations do you give pregnant farmworkers about standing, lifting, and hot environments during pregnancy?
5. What types of problems do pregnant farmworkers present within your office? Do you see some conditions more frequently in farmworkers? If so, what are they?

RESULTS

The data converged along five thematic areas: (1) information collected at intake; (2) barriers to health care; (3) patient occupation, culture, and pregnancy health; (4) occupational and environmental hazards during pregnancy; and (5) health care provider needs

Information Collected at Intake

Awareness of Patient Occupation.

All of the health care providers worked either part-time or full-time at the publicly funded health centers in which the interviews occurred. Farmworkers constituted a portion of their case loads in each center. With one exception, health care providers reported that they did not routinely record occupational information for the prenatal record. Occupational data were collected at a separate visit and on separate forms by intake workers. One health care provider reported that although space was provided in the medical record to record patients' occupations, occupations were not routinely recorded there.

Awareness of Patient's Time of Entry Into Prenatal Care.

Health care providers indicated that pregnant farmworkers do seek prenatal care, being seen for the first time between 9 and 24 weeks' gestation. Very few women arrive at the hospital for delivery with no prenatal care. Two groups of providers reported a policy of declining to see prenatal patients in the third trimester because of the liability of unidentified high-risk cases without time to manage these mothers optimally.

Health Care Coverage and Access.

The state in which the research was conducted grants an initial 45 days of presumptive Medicaid eligibility for pregnant women. This policy allows health centers time to verify income and citizenship; if verified, Medicaid covers pregnancy and delivery care. For farmworkers, many of whom are not citizens, presumptive eligibility provides entry into the prenatal care system and baseline prenatal testing. Clinics also seek other funding for women who may not be eligible for Medicaid. All interviewed health care providers believed adequate access to prenatal care existed for pregnant farmworkers.

Barriers to Health Care

One of the eight health care providers interviewed was bilingual, speaking Spanish and English. Providers acknowledged that the ability to communicate directly with patients was not optimal, but they believed that adequate translation services were available in their clinics. Transportation for patients was not identified as a current barrier to care, but two health care providers indicated it had been a problem previously. When asked whether farmworkers had difficulty taking time off work for prenatal visits, health care providers reported they had received no indication from the patients that this was a barrier. One health care provider identified limited knowledge of available services as a barrier, and another expressed concern that immigration status could affect health-seeking behavior.

Patient Occupation, Culture, and Pregnancy Health

Health care providers believed that many patients who could be farmworkers were not actually working in the fields while pregnant,

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instead staying home raising children or being currently unable to find work. The economy was identified as affecting this trend. Health care providers also reported that Haitian and Hispanic female farmworkers did not generally voice complaints or ask questions during their prenatal visits; the health care providers believe that motherhood was a source of pride for the female farmworkers.

Health care providers noted that health issues specific to pregnancy were insufficient or excessive weight gain and increased incidence of diabetes and macrosomia (high infant body weight). Health care providers reported they had not perceived an increased incidence of preterm labor, preeclampsia, or other pregnancy complications in this patient group.

Occupational and Environmental Hazards During Pregnancy

Pesticides. Health care providers reported that patients did not ask about pesticide exposure, and the providers did not identify problems that were obviously related to pesticide exposure. For example, four health care providers erroneously believed that the Occupational Safety and Health Administration regulated agricultural pesticide use. Some health care providers admitted they did not know how to advise workers about pesticide exposure during pregnancy. Two health care providers believed that farmworkers were adequately informed and trained about pesticide exposure at their work sites.

One health care provider expressed perceptions of work practices related to pesticides this way:

> *"If they're changing clothing like they're supposed to ... if they're not entering a field prior to the time they're supposed to ... then whether they are pregnant or not pregnant, you are not going to have any additional risk of exposure .... The problem is not everything happens like it's supposed to happen."*

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Ergonomics. One health care provider reported that pregnant farmworkers complained of lower back pain, and another health care provider acknowledged that repetitive motion in farm work could cause pain. Four health care providers stated that all women received the same advice about ergonomics during pregnancy-not to lift more than 25 pounds and to avoid motions that cause pain-regardless of occupational status.

Heat Exposure. Health care providers reported that patients never asked or complained about heat-related issues in the workplace. The health care providers recognized dehydration as a potential problem, but said they had not seen dehydration in the farmworker population.

Health Care Provider Needs

Two health care providers expressed the desire for training about the particular risks that female farmworkers faced, including ergonomic stress, pesticides exposure, and heat stress. One health care provider characterized this as follows:

"My training is limited on how to guide them.... You tell them that this is how you lift ... don't breathe anything directly, if you smell anything unusual leave the area .... Those are logical guidelines, but I don't

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think there are any special trainings on how to counsel that group of people."

The findings from this study offer only a glimpse of the potential unmet health needs of pregnant farmworkers. The sample was drawn from a specific geographic region; the findings may not be generalizable beyond the particular areas where these health care providers are located. This health care provider subgroup may not reflect the knowledge base of a less specialty-focused provider group, such as family physicians and family nurse practitioners.

IMPLICATIONS FOR PRACTICE

The findings from this study affirm several points about health care provider training in farmworker communities that have been acknowledged and discussed by agencies and organizations for more than a decade.

First, environmental and occupational health should be an essential element of medical and nursing school curricula. The Institute of Medicine has long supported the integration of environmental health content into health care provider education (Pope & Rall, 1995; Pope, Snyder, & Mood, 1995). In addition, the National Environmental Education Foundation formed an interagency task force that brought together health professionals and other stakeholders, producing a position statement on health professionals and environmental health education (National Environmental Education Foundation, 2004). Despite this history of efforts, most health care providers do not have knowledge and tools to address patients' environmental and occupational health issues. If the work of federal agencies and nongovernmental organizations has been effective in improving health provider education or practice, it has been slow to become apparent at the farming community level. Health care providers who serve farmworkers are in a position to positively affect workers' health through prevention education, accurate diagnoses, and prompt and appropriate treatment. Yet, once in practice, their awareness and understanding of occupational injuries and environmental illnesses may not expand.

Second, health care providers should receive continuing education and information on environmental and occupational health risks in general and more specifically for the populations they serve. In farming communities, this education should include the recognition and management of pesticide-related illnesses, treatment options, risks to the fetus and fetal development, and instructions regarding specific pesticide poisoning reporting requirements. The Migrant Clinicians Network (www.migrantclinician.org), an organization providing direct support for clinicians, offers education and technical assistance on issues relevant to farmworkers, including environmental and occupational health. In Florida, the Farrnworker Health and Safety Institute, through the FWAF, offers training in pesticide exposure of farmworkers to clinics and health care providers.

Finally, an occupational health history should be part of initial health care visits. This history could be obtained prior to individuals seeing the clinician; it should be reviewed by the provider, using an interpreter if appropriate. Failure to assess patients' occupational health histories results in little attention to agriculture-related health issues in this group of women.

CONCLUSION

To effectively meet the prenatal health needs of pregnant farmworkers and their fetuses, health care providers must be educated early and continuously in environmental and occupational health. Health care providers located in areas with farmworker populations must learn about their patient population. Inquiring about a pregnant farmworker's occupational history is an example of becoming more aware of the needs of this potentially high-risk and vulnerable population.

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streamline

Increasing Access to Health Care for Farmworkers Who Are Unaccompanied Minors

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BACKGROUND

Access to Health Care for Unaccompanied Migrant Farmworker Minors

This research study seeks to provide primary care providers with policy recommendations for increasing access to health services for migrant farmworkers who are unaccompanied minors, while ensuring the protection of providers from legal liabilities. It was initiated after several Health Centers in the Mid-Atlantic region of the United States reported instances of unaccompanied minors (defined as those under age 18) seeking treatment without a legal guardian who could give consent. Some primary care providers expressed concerns regarding the possible liabilities of serving unaccompanied minors.[1] Primary care providers also face ethical issues of whether these minors should be working at all or should be referred to social services and enrolled in school and foster care. Health Centers do not wish to adopt policies that would discourage patients from seeking the medical help they need, or policies that will prohibit them from effectively serving this vulnerable population.

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Minors in Agricultural Labor

The number of minors employed in agricultural labor has increased in recent years as more teens immigrate alone to the United States in order to work in the agricultural industry and send earnings back home to their families.[2] The US Department of Labor reported in 2000 that 80 percent of migrant, minor farmworkers do not live with any member of their family, and 91 percent are foreign born.[3] According to the Centers for Disease Control and Prevention, an estimated 230,000 youth were hired to work on US farms in 2009.[4]

Unaccompanied migrant minors face many challenges as a result of their work conditions, poverty, low levels of education and lack of parental support. Half of all teenage farmworkers live in households with annual incomes of less than $10,000, yet only 2 percent of all farmworkers live in households that receive Temporary Assistance for Needy Families, and only 7 percent of farmworkers aged between 14 and 17 receive food stamps.[5] Teenage farmworkers are half as likely to receive food stamp benefits as adult farmworkers. The low levels of federal assistance may be due to the fact that many minor migrant workers are foreign-born.

Minors working in agriculture are also paid less on average than adult farmworkers. Approximately 23 percent of adult agricultural workers earned minimum wage or less while 30 percent of child farmworkers earned at or below minimum wage.[6] Teens who work and live away from their families have also been shown to struggle academically. Almost half of unaccompanied teens indicated that they had worked for more than 13 weeks out of the year, which indicates that they performed some work during the school year.[7]

Health of Minor Farmworkers

Although data on unaccompanied minor farmworkers is limited, the US Department of Labor reported that, "it is unlikely that many of these minors have employer provided health insurance."[8] In fact, only 8 percent of all farmworkers report having health insurance. This is especially troubling considering the often hazardous nature of farm work. According to the National Safety Council, agriculture is the most dangerous

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