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Providing Care for Migrant Farm Worker Families in Their Unique Sociocultural Context and Environment

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Abstract

This article highlights the Farm Worker Family Health Program's (FWFHP) strategies for providing care to migrant farm workers residing within a unique social and cultural context. The care provided by health professions students from a variety of disciplines extends and augments the work of the local migrant farm worker clinic that is pushed beyond capacity during peak growing and harvest times. Nursing's social responsibility to care for underserved populations is a guiding principle of the FWFHP and shapes how the work is translated into action. The FWFHP is a community–academic partnership that began in the rural southeastern United States in 1993. Challenges facing migrant farm worker families include access to health care, language, health literacy, housing and sanitation, family and community integrity, and workplace safety. The nursing practice strategies used to address these health challenges may be adapted to strengthen health programs serving other populations who live in poverty or reside in low-resource settings.

Keywords

migrant farm workers, social responsibility, community partnership, low-resource setting, cultural competence, community health, transcultural health

This article highlights the Farm Worker Family Health Program's (FWFHP) strategies for providing care to migrant farm workers residing within a unique social and cultural context. The care is provided by students in health professions from a variety of disciplines during a 2-week immersion experience. The FWFHP is a community–academic partnership that extends and augments the year-round work of the local migrant farm worker clinic that is pushed beyond capacity during peak growing and harvest times. The FWFHP extends the clinic's hours of operation and site locations and provides care in a culturally appropriate manner. The article also explores nurses' social responsibility to care for underserved populations.

Nurses' stand at the particular and privileged intersection where they simultaneously provide care to patients and identify the forces that impede the attainment of patients' health. Social responsibility is a core value of nursing and is embedded in nursing's history and code of ethics. Nurses infuse social responsibility into the care of individuals, families, and communities in all settings. Social responsibility may be defined as a social contract to promote the health and well-being of its patients, especially those who are underserved, by working to influence structures that impede the fulfillment of health potential. These influencing structures include but are not limited to access to health care, language, health literacy and education, housing and sanitation, family and community integrity, and working conditions. In addition, poverty and social policies are direct and indirect influences (Mauer, 2005; see also Centers for Disease Control [CDC], 2005).

The FWFHP began in 1993 with a small grant and has grown into a multidisciplinary 15-year community–academic partnership that provides health care for migrant farm worker families in a rural southeastern setting. Migrant farm workers and their families are an extremely underserved population who demonstrate strength and resiliency in the face of significant health disparities and vulnerabilities.

While respecting the unique social and cultural variations of migrant farm worker families, the FWFHP team provides health promotion and screening, disease prevention, and innovative primary care strategies to treat common health problems of the population and demonstrates social responsibility in

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action. Through a community assessment, the team members familiarize themselves with the particular social patterns and cultural variations that influence the health of migrant farm worker families and creatively adapt standard practice guidelines to the uniqueness of the population and setting. In turn, team members gain skills in cultural competence as they provide care for an unfamiliar culture in an atypical and low-resource setting. The hope is that the team members will continue to improve their cultural competency skills, carry these skills with them into future practice settings, and serve as culturally competent providers and exemplars for their colleagues.

Although this article focuses on the migrant farm worker culture and delivery of care for that population, the content and strategies may be adapted to the care of others who live in poverty or low-resource settings. Working with populations that reside in low-resource setting requires a significant time commitment to build trust in the community, develop and nurture partnerships, thoroughly assess the population to understand the assets and needs, recruit community support, increase the team members' cultural understanding, and hone skills for working with fewer available resources. Faculty and students who participate in the FWFHP use many of the same principles in their work with other populations living in low-resource settings, such as persons who are homeless, disabled, elderly, living in congregate settings, and other marginalized groups.

Review of Literature on Migrant Farm Workers

The FWFHP serves the migrant farm workers who migrate along the East Coast from Florida to Maine following the peak harvesting seasons. This is one of three migratory streams in the United States in addition to the Western and Midwestern streams (Weathers, Minkovitz, O'Campo, & Diener-West, 2004). The multibillion dollar agriculture industry in the United States and the connected local and state economies rely on the enormous human labor force of migrant farm workers who greatly contribute to our nation's food supply and exports (U.S. Department of Labor, 2005a). The National Center for Farmworker Health (NCFH) estimates a stream of migrant and seasonal farm workers that includes approximately three million people (Larson & Plascencia, 1993 as cited in NCFH, 2003a).

Seventy-nine percent of the farm workers surveyed in the 2001-2002 National Agricultural Workers Survey were male, and half were younger than 31 years of age (U.S. Department of Labor, 2005a). Though males outnumber females, female workers were much more likely to be accompanied by children. In all, 56% of men and 33% of women were unauthorized to work in the United States. A total of 81% percent of those surveyed identified Spanish as their native language, whereas only 24% stated that they spoke English well (U.S. Department of Labor, 2005b).

Isolation is a significant factor contributing to migrant farm workers' health status. Migrant farm workers are often an invisible population because they work in rural, isolated areas and often live in farm worker housing camps located miles off main roads. Additionally, their major focus tends to be earning enough money to meet their basic needs for food, clothing, and housing while having money left over to send remittances to family members back home. This allows little energy for engaging with the broader community. Even more important, language barriers, immigration status, fear of deportation and immigration authorities create a heightened sense of vulnerability and the need to remain invisible. Additionally, a recent survey found that 57% of all migrant farm workers lived apart from nuclear family members, further intensifying this isolation (U.S. Department of Labor, 2005a).

Agricultural work is one of the most dangerous occupations in the United States. The working conditions, exposure to the natural elements, and the demanding nature of the work pose significant health risks for migrant farm workers. Morbidity is often perceived as part of the job and therefore underreported, but mortality data show a higher death rate among agricultural workers in the United States compared with other industries. Agricultural services, including farming, fishing, and forestry, had a 30% fatality rate compared with a 4% fatality rate among all occupational groups in 2006 (U.S. Department of Labor, U.S. Bureau of Labor Statistics, 2008).

During peak harvesting and planting seasons, migrant farm workers typically work from sun up to sun down, 6 days per week. Farm workers as well as their families, including children, experience pesticide exposure during the mixing and applying, weeding, irrigating, and harvesting, as well as simply by living near fields treated with pesticides (Reeves & Schafer, 2003). Farm workers are also exposed to natural elements, such as extreme heat, constant sun, rain storms, cold temperatures, plant toxins, and insects, among others. In addition to the harsh environmental conditions, the work is exhausting and requires physical strength and mental fortitude. They work at a fast pace, rarely breaking to eat, drink, or use the bathroom. This leads to occupational-related injury, chronic musculoskeletal problems, dehydration, heat exhaustion, and acute illnesses such as urinary tract infections. Food, water, and bathrooms are not always available or accessible during the work day. Sporadic access to food and water affects the health status of migrant farm workers and interferes with their ability to adhere to medication regimens.

Perceptions of health, health beliefs, and expectations of health care providers vary within the population. Even though most migrant farm workers are young, their health is often neglected, and many arrive with or develop comorbid conditions. They often acquire medicines from the home country, and the use of herbal remedies is pervasive. The farm workers may not be familiar with using over-the-counter medications in United States to treat or manage illness or injury. Nutrition

and eating patterns differ from typical United States patterns and may affect medicinal regimens.

The housing environment of migrant farm workers and families presents other threats. Many live in dilapidated trailers, barracks, or other crowded housing units with numerous structural, sanitation, and electrical problems. Living conditions under the government H2A visa for temporary agriculture workers may more closely comply with local housing codes and regulations. A survey of farm worker housing conditions found that housing units located in the Eastern migrant stream, which includes the FWFHP location, had the greatest prevalence of substandard housing. Furthermore, of all the housing units surveyed in the nation, 65% of severely substandard units were occupied by children (Holden, 2001).

Migrant farm worker families face significant barriers to accessing affordable health care. Poverty influences health and wellness and underlies health disparities. This is evident in much of the southeastern United States, where many counties are designated as a Health Professional Shortage Area by the Department of Health and Human Services. This designation means that the primary care physician to population ratio is less than 1:3500 and/or there are unusually high medical needs and insufficient capacity or inaccessible resources for the population in the area (U.S. Department of Health and Human Services, Health Resources and Services Administration [HRSA], Bureau of Health Professionals, 1992). The FWFHP sites are located in this shortage area. The lack of health professionals combined with extreme poverty rates in rural areas (National Advisory Committee on Rural Health and Human Services, 2004, p. 4) creates a dangerous set of conditions that silently affect health status. Weathers et al. (2004) write that the "lack of an independent means of transportation, lack of knowledge of where to go for needed care, and very high caretaker pressure to work contribute to unmet medical need among migrant children" (p. 281).

The migratory nature of the population is a cultural variation specific to this population that presents unique challenges to the provision of care and contributes to the fragmentation of health services. Furthermore, there is a "reluctance of migrant farm workers, particularly Hispanics, to apply for services and seek out available community supports. Inherent fears of negative consequences, such as determination of employment ineligibility or deportation, are pervasive" (Breeding, Harley, Rogers, & Crystal, 2005, Overview of Hispanic Migrant Workers, para. 6).

According to the Binational Farmworker Health Survey results, the rate of chronic health conditions in migrant farm workers was particularly alarming, with one in four farm workers reporting a diagnosed chronic illness. This number does not account for those who have not been diagnosed by a health care provider. Whereas some migrant workers begin proper management of their health conditions before entering the United States, others have never seen a professional health care provider and mainly rely on folk and herbal remedies. Those who are not able to access care in the United States may self-medicate with over-the-counter prescription medications from Mexico (Mines, Mullenax, & Saca, 2001).

The migrant status of women and children make them particularly vulnerable. One study found that only 42% of female migrant farm workers sought prenatal care in the first trimester of pregnancy, compared with 76% overall for pregnant women in the United States (Larson, McGuire, Watkins, & Mountain, 1992). A study in South Carolina found that children of migrant farm workers are significantly delayed in receiving immunizations on the recommended schedule (Lee, McDermott, & Elliott, 1990). Another study found greater than one third of children of migrant workers suffered "intestinal parasites, severe asthma, chronic diarrhea, vitamin A deficiency, chemical poisoning or continuous otitis media" (Migrant and Seasonal Farmworker Children and HRSA Fact Sheet, n.d. as cited in NCFH, 2003b).

One study found that 66% of migrant farm children migrate with their parents every year (NCFH, 2003b). This presents barriers to education as children move between school systems with the growing season, creating logistical challenges such as keeping school health records up-to-date.

Children and adults typically do not have access to periodic screening for growth and development or health promotion and disease prevention; thus health issues that may have been found during preventive screening are often only diagnosed and treated in an emergency room when the condition has progressed to a more serious and costly stage (NCFH, 2003a). For many migrant communities follow-up care is nearly impossible because of limited transportation, telephone access, and financial resources. An example of this is tuberculosis, from which farm workers suffer at disproportionately higher rates than the general population. Although the 1992 CDC guidelines for tuberculosis care for migrant farm workers calls for access to screening, treatment, and follow-up care, implementing this practice is challenging in the face of frequent mobility and fractured care (CDC, 1992). Federally funded migrant health centers positioned along the established migrant worker streams provide key resources for families, yet provide care to only approximately 20% of the nation's migrant farm workers (National Advisory Council on Migrant Health, 1993 as cited in NCFH, 2003a). Additional support is needed during peak growing seasons to augment the care provided by these clinics.

Meade and Calvo (2001) wrote that partnerships between academic institutions and community agencies can improve the health of at-risk populations such as migrant farm workers by creating a sustainable delivery system through which institutions can provide care. Furthermore, community–academic health partnerships bring human, educational, and financial resources into underserved communities (Sherrill et al., 2005; Wilson, Wold, Spencer, & Pittman, 2000), as well as recruit future health professionals into shortage areas (Plowfield, Wheeler, & Raymond, 2005; Van Hofwegen, Kirkham, & Harwood, 2005).

Organizational Structure, Planning, and Implementation of the FWFHP

The FWFHP is a sustained community partnership with a 15-year history of providing care for migrant farm worker families. A southeastern university school of nursing coordinates the FWFHP in partnership with a local migrant farm worker health clinic. The migrant health clinic nurtures relationships with other local partners, including a summer education program, businesses, faith communities, child care centers, the Area Health Education Center (AHEC), farmers and growers, and others. The local clinic's outreach workers play a key role in follow-up with referrals and ensure the migrant farm workers needs are met long after the program has ended each summer.

Educational partners whose faculty and students participate in the FWFHP include three urban universities and one rural college. Each summer approximately 90 health professional students and faculty members from nursing, physical therapy, dental hygiene, and psychology travel to an isolated rural southeastern U.S. setting to live and work for 2 weeks. Each professional discipline adds to the overall scope of services. Although many of the students on the team change each year, the partner's faculty coordinators and returning students provide important continuity of care.

The school of nursing coordinates on-going year-round communications via electronic and face-to-face meetings among the many partners. This promotes interdisciplinary collegiality and leads to the implementation of a successful program each summer. During the 2-week immersion experience the health professions faculty, students, and clinic staff hold daily meetings to respond to the complex issues that arise in the demanding and constantly changing work environment. The FWFHP's motto is "Blessed are the flexible for they shall not be bent out of shape"; the mascot is Gumby.

The FWFHP increases access to care by providing care in places where people gather and during nontraditional hours. Because migrant farm workers are in the fields from sunup to sundown and others work in the packing sheds at night, the FWFHP offers evening clinics at the workplace or housing areas. The clinics begin near sunset and stay open until everyone receives care, often until midnight. During the day, the FWFHP team provides care for children in schools, day care settings, and in the community housing areas. The program dates are strategically planned to coincide with the peak harvesting season in order to serve the greatest number of people. Without the assistance of the FWFHP team, the local migrant health clinic would not be able to meet the needs of migrant farm families during the peak influx. The team provides health screenings, physical exams, treatment for illnesses, health education, dental care, physical therapy, and psychological assessment for 700 to 1,000 migrant farm workers and family members.

The migrant children cared for during the FWFHP are at increased risk for obesity, hypertension, diabetes, anemia, dental caries, infections, social isolation, and school delays. The assessment of each child includes a history and physical exam with emotional, developmental, and social health assessments. Undergraduate nursing students assess height, weight, body mass index, vision, hearing, blood pressure, hemoglobin, and glucose. Nurse practitioner students complete head-to-toe exams and evaluate developmental milestones and the overall care plan. Dental hygiene students clean teeth and apply fluoride and sealants. Physical therapy students assess fine and gross motor abilities and teach strengthening and body mechanics. Psychology students further assess children with learning difficulties, emotional or social delays, and other issues. An important role that the FWFHP team plays is to complete the required health documents that children need to transition into and between schools.

Undergraduate nursing students also complete the routine screening for adult blood pressure, blood glucose, and hemoglobin. Additionally, adults are evaluated by the nurse practitioners, dental or physical therapy providers for commonly occurring conditions such as dental caries and abscesses, musculoskeletal injuries, dermatological concerns, pesticide exposure and poisoning, heat stress, dehydration, depression and isolation, sexually transmitted infections, parasitic infections, hypertension, diabetes, obesity, chronic diseases, and so on.

These early and periodic screenings for children and adults are intended to promote health and prevent disease as well as identify and delay disease progression. The FWFHP team is able to diagnosis significant problems in migrant children related to vision, hearing, development delays, musculoskeletal and dental problems that, if not identified at an early age, may significantly affect a child's overall health and well-being. Similarly, the adult screenings identify problems that can be addressed early before they seriously affect health while they are still at a stage that is less costly to treat. For example, the FWFHP has found a significant decrease in the number of dental caries in the migrant children whose teeth were sealed during previous FWFHP years. Also, some migrant farm workers return to the FWFHP each year bringing the medicine bottles dispensed during previous years and share stories about how helpful the medications were for them or with FWFHP cards detailing their blood pressure, glucose, and hemoglobin measurements.

The FWFHP hopes to reduce health disparities and promote health by preventing or delaying the progression of adverse health conditions. Once identified, the migrant farm worker clinic coordinates the follow-up care and referrals. If a patient presents with a condition that is beyond the scope of the FWFHP, transportation and follow-up with a migrant farm clinic is arranged on-site. Throughout the year the clinic keeps the university team members abreast of the treatment and follow-up of patients referred by the FWFHP.

Rooted in a deep respect for the culture and traditions of migrant farm workers, the team acknowledges the farm workers' health beliefs and practices and incorporates them into the care, as they are able. Providers use verbal, written, and pictorial information to assist the farm workers as they navigate the U.S. system and help them understand their prescriptions, over-the-counter medications, and treatment plan. Health education, prevention, and promotion are often the most valuable tools that the farm worker families have as they migrate. This element of care builds capacity within the migrant farm worker community by increasing knowledge and influencing health practices.

Multiple dynamics are at play when working with underserved populations in low-resource settings and across cultures. Understanding this is the basis for providing care that is culturally competent and is responsive to community preferences, priorities, and variations. Before beginning the program, team members are encouraged to begin exploring culturally competent care by reflecting on their motivation for participation and their own strengths and weaknesses, biases, stereotypes, beliefs, and values. Team members must enter the community with an open mind, ready to serve. They must also be aware of the inherent power differential between the health care provider and the migrant farm worker. Although the power differential is rarely equalized, it is important to recognize and acknowledge its presence. When providers are aware of this and have opportunities to process these issues, they are often able to learn as much from the farm workers as the farm workers learn from them. This skill set is essential for providers when conducting a community assessment or working directly with all underserved populations.

The FWFHP helps the health care team members reflect on social responsibility and translate it into pragmatic action. Physician-anthropologist Paul Farmer (1999) refers to this value in action as "pragmatic solidarity" (p. 25). Such social responsibility in action necessitates creative and practical interventions specifically adapted to best serve the needs of the migrant farm worker population. The setting for the FWFHP offers team members daily opportunities to explore creative solutions for addressing complex health issues and to strengthen interprofessional collegiality.

Adapting Nursing Practice to the Unique Variations and Patterns of Migrant Farm Workers

Going to where the migrant farm workers live, work, and go to school not only helps the population access care but also offers the team a glimpse into the "lived experience" of the grueling physical labor and the social and mental struggles that migrant families face. Assessing the context of migrant farm worker life reveals strengths as well as a number of challenges. The FWFHP tailors its strategies to use the migrant farm workers' assets and strengths, such as resiliency, dedication, work ethic, and strong family and community bonds to improve health while also addressing significant health challenges. As mentioned earlier, poverty is an underlying challenge to health. Other challenges include health care access, language, health literacy, isolation, housing and sanitation, strains in family and community integrity, and difficult working conditions.

Access to Health Care

The politically charged climate surrounding immigration policy in the United States has negatively affected resources for the prevention of illness as well as the care and management of existing health conditions for migrant farm workers. Legal status, immigration, and work visas are factors that may dictate who receives care and where.

The FWFHP strategy is to provide an array of health services in a variety of locations and connect the migrant farm workers with outreach services and resources. Care is provided in farm fields, packing sheds, farm worker barracks, child care centers, and public schools. The FWFHP clinics are scheduled to coincide with the most convenient time for the workers and their families. Local health outreach workers promote the time and location of FWFHP clinics by visiting the workers and the farm owners ahead of time. This approach is supported by Weathers et al. (2004), who state, "delivery of health care during nontraditional working hours and in nontraditional working sites, in proximity to farm workers, also would likely reduce access barriers for migrant children" (p. 281). A strong and mutually beneficial partnership exists between the FWFHP and the local migrant health clinic. The FWFHP expands the reach of the local migrant clinic, which in turn ensures the sustainability of the FWFHP summer program's efforts.

Language and Health Literacy

An assessment of the population reveals language and cultural differences between team members, partners, and migrant farm workers. The primary language for the migrant farm workers is Spanish, although some speak English and others speak indigenous languages from their home countries. The language divide can add to the power differential between the provider and the migrant farm worker.

While some team members are fluent in Spanish, all are instructed in the appropriate ways to work with interpreters and incorporate cultural competence into their care. The need for interpreters is critical because they provide a crucial link in bridging the language barrier and serving as cultural brokers. All FWFHP interpreters are trained and certified. Each has successfully completed Bridging the Gap medical interpreter training program, a 5-day training program through the nonprofit Cross-Cultural Health Care Program (CCHCP). The interpreters are local community members who have firsthand knowledge of available, affordable, and accessible

services. In addition, some of the interpreters have been migrant farm workers themselves, and they offer a different kind of compassion and empathy because of their shared experience and deep understanding of the farm workers' plight. Many of the interpreters return year after year because they care, are invested in the work of the FWFHP, and have a desire to improve the health of their community. Additionally, some interpreters develop an interest in pursuing a health profession because of their work with the FWFHP. One former farm worker earned her nursing degree, works locally, and interprets for the FWFHP each year. Their continuity and dedication contribute to improving the delivery of services.

Another more hidden but critical role the interpreters play is serving the migrant farm workers whose first language is an indigenous language and whose second language is Spanish. Occasionally, migrant farm workers speak languages that are indigenous to the area of the countries from which they originate. Many come from the area of Chiapas in Mexico or nearby Guatemalan regions where dialects of Mayan origin predominate.

Though native-language interpreters would be ideal, having interpreters whose first language is Spanish and who have cultural and historical ties to the same home country as these particular migrant farm workers is a tremendous asset in responding to the health needs of the population. Likewise, the engagement of the migrant farm workers who have participated in previous FWFHPs helps build trust and acceptance for the new migrant workers.

Health literacy is significantly influenced by these language issues and a primary concern of the FWFHP. Team members design health education materials that are pragmatic and valuable for the population based on identified needs. Written and pictorial materials for health education, treatment recommendations, pharmaceutical instructions, and screening results are chosen based on what is currently being used by the local migrant clinic and new information from leading agencies such as the American Cancer Society (ACS), Centers for Disease Control and Prevention, and so forth. The materials are reviewed each year to improve the clarity of the materials with input from native Spanish-speaking consumers, the clinic staff, and others. Although the FWFHP has not used a reading-level tool such as the Fleisch-Kincaid, such a tool could be used to improve the materials.

Isolation, Housing, and Sanitation

Migrant farm workers and families are separated from the greater community by social, cultural, and language barriers as well as by geographic location. Most migrant farm workers live in inadequate housing that is out-of-site of most community members. Lack of transportation and little free time also isolates the population.

The systems theory is the basis for the systems-based framework for community assessment, which the team members use in assessing the migrant farm worker community. This framework recognizes that the community is dynamic in nature and constantly adapts to internal and external stimuli (Mauer & Smith, 2005). The team members visit the migrant farm workers where they live to assess the environmental and housing conditions. They inquire about access to such things as clean running water, electricity, and adequate sewage, as well as proximity to or distance from neighbors. The provider may also need to know if the patient lives in a barrack, whether it is a family or single-gender unit, and how many people live there. Congregate settings such as barracks are environments that increase the spread of communicable diseases. A food-borne illness in a single trailer has a different impact on a population than a food-borne illness in a barrack setting, where all the workers may have eaten from the same food source or used the same inadequate hand-washing facilities. The FWFHP team takes into consideration housing conditions such as these when planning care.

Family and Community Integrity

The geographic separation of families disrupts family integrity, strains support networks, and affects the health of the community at large. This separation may be particularly significant because farm workers often come from cultures that highly value family and community relations. The FWFHP responds to concerns from many single men who are apart from their families for extended periods of time and feel disconnected from daily support systems. Depression and loneliness are frequent reasons the migrant farm workers seek the services of the FWFHP team, and these problems underlie many of the farm workers' physical complaints.

The team assesses farm worker families for depression and mental health issues that not only affect psychosocial–spiritual well-being but also lead to chronic stress. Those farm workers who live in barracks that are geographically isolated frequently complain of loneliness, which may in turn lead to engagement in high-risk behaviors, including alcohol and drug abuse, prostitution, and violence. The convergence of these high-risk behaviors increases the risk of sexually transmitted infections.

The FWFHP team approach allows providers to spend extra time with patients and discuss complicated issues. They use the expertise of the interpreters in assisting with available supports in the communities, provide printed, video, and verbal health education information and connect the farm workers with the clinic who assist with clinic appointments, prescriptions, support groups, and so on. The clinic outreach workers connect the farm workers with faith communities, grief groups, and other support networks. Most important, the team members encourage the patient to discuss feelings and offer a listening presence and caring milieu. As is true in many settings, following up on mental health issues is a challenge.

Workplace Safety

An occupational health assessment and treatment plan is particularly important for this population. Migrant farm workers are at risk for a variety of health problems because of exposures to chemicals and pesticides, plants, sun, and moisture. They are also at risk for ergonomic and equipment-related injuries.

Harvesting crops poses a variety of risks to migrant farm workers and their families. Exposure to high levels of harmful pesticides and other chemicals is prevalent. Often, workers do not have access to protective gear, extra clothing, or laundry facilities that could prevent pesticide exposure. These are important issues to discuss with patients. Falling into bed without changing clothes after working an exhausting 14- to 16-hour day may be a pattern for some workers who are unaware of the danger this can pose to their health. It is important to inquire about common routines related to clothing, footwear, and access to laundry facilities. Workers' footwear should be left outdoors as should clothing, if possible. The FWFHP provides significant clothing and footwear donations at each site visited so that workers will have more clothing and can rotate the contaminated items for washing.

The type of crop harvested may also place them at risk. For example, workers in tobacco fields are at-risk for nicotine poisoning. Although clothing and proper footwear may diminish skin exposure to and absorption of the nicotine in the plants, the clothing offers less protection once shirts and pants are wet with sweat and early morning dew. With this information, workers may wear extra layers and waterproof arm coverings or waders; in the event of an exposure they should seek assistance and remove contaminated clothing.

Sun exposure not only causes skin damage but may also cause corneal overgrowths called pterygiums to form on one or both eyes. Pterygiums can cause visual impairment or loss of vision if left untreated. The FWFHP team members encourage farm workers to wear a hat and place a mild ophthalmic ointment on the eyelids each evening. Though sunglasses are an obvious choice to protect them from ultraviolet rays, workers do not wear sunglasses because the tinting distorts the color of the crops. Clear ultraviolet safety glasses are an alternative but they tend to fog up and slide down the nose with sweating. Information about the eye growths and why they occur helps workers be more conscientious about wearing brimmed hats for protection and seeking care if pterygiums begin to grow.

Chronic exposure to moisture from standing in wet fields causes foot fungal infections. Foot assessment is especially important because diabetes rates are high in the migrant farm worker population. The FWFHP provides extra socks, foot powder, and additional foot wear for the workers and encourages them to change their socks when wet. Those with active foot fungus receive creams for treatment. A foot care station offers foot washing, health education, a soothing touch, and additional time to talk with a provider.

Another occupational hazard is chronic musculoskeletal pain. Treatment strategies include health education information, hot and cold compresses, muscle rub, and anti-inflammatory medications. The farm workers are also taught easy and effective back care exercises to prevent injury and protect their bodies. This information is given individually and in group classes. Later, when access to health care is limited, migrant farm workers will have the educational information and peer support to rely on in their work and living environments.

Farm workers are also at high risk from injury related to farm implements and machinery. It is essential to increase awareness of their exposure to farm-related injuries and provide verbal, written, and pictorial prevention education.

The FWFHP addresses issues related to workplace safety as possible during the 2-week immersion. The local migrant clinic has requested to be the partner that works directly with the farm owners on issues that are more complex in scope. The migrant clinic's 20-year history of building social networks and social capital within the community makes it the most appropriate partner to directly address larger issues.

Conclusion

The FWFHP model is designed to improve the health of migrant farm worker families through a collaborative community–academic partnership with a strong emphasis on increasing cultural competence and social responsibility. The program recognizes and respects the unique social and cultural dynamics within an underserved population that demonstrates extraordinary strength and resiliency in the face of significant health disparities and vulnerabilities. The FWFHP adapts practice guidelines to provide culturally competent care while addressing the challenges facing migrant farm workers, such as access to health care, language barriers, health literacy and education, housing and sanitation, family and community integrity, and workplace safety. The FWFHP offers creative strategies for providing high-quality care in an extremely low-resource setting.

The FWFHP's 15-year history demonstrates commitment and nurtures trust within the community. The partnership's caring approach emphasizes health education, encourages empowerment, and increases the capacities and strengths of the community.

The FWFHP model may be adapted for use by others working with populations who live in low-resource settings. The FWFHP's emphasis on cultural competence and social responsibility as grounding principles adds important dimensions to the care provided. The FWFHP works with the community year round to adapt to a constantly changing, unpredictable environment, and respond to the multifaceted needs of migrant farm worker families. The team members gain skills and cultural understanding for working with underserved

populations and are able to adapt practice to the unique social and cultural variations of the population.

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References

Breeding, R. R., Harley, D. A., Rogers, J. B., & Crystal, R. M. (2005). The Kentucky migrant vocational rehabilitation program: A demonstration project for working with Hispanic farm workers. *Journal of Rehabilitation, 71*, 32-41.

Centers for Disease Control and Prevention. (1992). Prevention and control of tuberculosis in migrant farm workers recommendations of the advisory council for the elimination of tuberculosis. *Morbidity and Mortality Weekly Report (MMWR), 41*(RR10). Retrieved June 30, 2008, from http://www.cdc.gov/mmwr/preview/mmwrhtml/00032773.htm

Centers for Disease Control and Prevention. (2005). *Social determinants of health*. Retrieved January 21, 2009, from http://www.cdc.gov/socialdeterminants/Index.html

Farmer, P. (1999). *Infections and inequalities: The modern plagues*. Berkeley: University of California Press.

Holden, C. (2001, October). *Housing* (Migrant Health Issues Monograph Series No. 8). Buda, TX: National Center for Farmworker Health. Retrieved September 1, 2007, from http://www.ncfh.org/docs/00-10%20-%20monograph.pdf

Larson, K., McGuire, J., Watkins, E., & Mountain, K. (1992). Maternal care coordination for migrant farmworker women: Program structure and evaluation of effects on use of prenatal care and birth outcome. *Journal of Rural Health, 8*, 128-133.

Lee, C. V., McDermott, S. W., & Elliott, C. (1990). The delayed immunization of migrant farm workers in South Carolina. *Public Health Reports, 105*, 317-320.

Mauer, F. A. (2005). Vulnerable populations. In F. A. Mauer & C. M. Smith (Eds.), *Community/ public health nursing practice: Health for families and populations* (3rd ed., pp. 485-486). St. Louis, MO: Elsevier.

Mauer, F. A., & Smith, C. M. (2005). Community assessment. In F. A. Mauer & C. M. Smith (Eds.), *Community/ public health nursing practice: Health for families and populations* (3rd ed., pp. 345-356). St. Louis, MO: Elsevier.

Meade, C. D., & Calvo, A. (2001). Developing community-academic partnerships to enhance breast health among rural Hispanic migrant and seasonal farmworker women. *Oncology Nursing Forum, 28*, 1577-1584.

Mines, R., Mullenax, N., & Saca, L. (2001). *Binational Farmworker Health Survey*. Davis: California Institute of Rural Studies. Retrieved September 11, 2007, from http://www.cirsinc.org/Documents/Pub0601.1.PDF

National Advisory Committee on Rural Health and Human Services. (2004, April). *Report to the secretary: Rural health and human service issues. Rural America 2004: A demographic portrait*. Retrieved November 15, 2005, from ftp://ftp.hrsa.gov/ruralhealth/NAC04web.pdf

National Center for Farmworker Health. (2003a). *Facts about farmworkers*. Retrieved July 24, 2005, from http://www.ncfh.org/docs/fs-Facts%20about%20Farmworkers.pdf

National Center for Farmworker Health. (2003b). *Maternal and child health fact sheet*. Retrieved July 28, 2008, from http://www.ncfh.org/docs/fs-Facts%20about%20Farmworkers.pdf

Plowfield, L. A., Wheeler, E. C., & Raymond, J. E. (2005). Time, tact, talent, and trust: Essential ingredients of effective academic-community partnerships. *Nursing Education Perspectives, 26*, 217-220.

Reeves, M., & Schafer, K. (2003). Greater risks, fewer rights: U.S. farmworkers and pesticides. *International Journal of Occupational and Environmental Health, 9*, 30-39.

Sherrill, W., Crew, L., Mayo, R. M., Mayo, W. F., Rogers, B. L., & Haynes, D. F. (2005). Educational and health service innovations to improve care for rural Hispanic communities in the USA. *International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy, 5*. Retrieved May 29, 2006, from http://rrh.deakin.edu.au

U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions. (1992, January 22). *Shortage area primary medical care designation criteria*. Retrieved July 3, 2008, from http://bhpr.hrsa.gov/shortage/hpsacritpcm.htm

U.S. Department of Labor. (2005a). *The National Agricultural Workers Survey. Chapter 2: Demographics, family size, and household structure*. Retrieved September 1, 2007, from http://www.doleta.gov/agworker/report9/chapter2.cfm#age

U.S. Department of Labor. (2005b). *The National Agricultural Workers Survey. Chapter 3: Education, literacy, and English skills*. Retrieved September 1, 2007, from http://www.doleta.gov/agworker/report9/chapter3.cfm#language

U.S. Department of Labor, U.S. Bureau of Labor Statistics. (2008). *Number of fatal work injuries, 1992-2006 and other related data*. Retrieved July 3, 2008, from http://www.bls.gov/iif/oshwc/cfoi/cfch0005.pdf

Van Hofwegen, L., Kirkham, S., & Harwood, C. (2005). The strength of rural nursing: Implications for undergraduate nursing education. *International Journal of Nursing Education Scholarship, 2*, 1-13.

Weathers, A., Minkovitz, C., O'Campo, P., & Diener-West, M. (2004). Access to care for children of migratory agricultural workers: Factors associated with unmet need for medical care. *Pediatrics, 113*, 276-282.

Wilson, A. H., Wold, J. L., Spencer, L., & Pittman, K. (2000). Primary health care for Hispanic children of migrant farm workers. *Journal of Pediatric Health Care, 14*, 209-215.