

CULTURALLY SENSITIVE HEALTH PROMOTION PLAN FOR TUBERCULOSIS PREVENTION AND TREATMENT IN MEXICAN MIGRANT FARM WORKER POPULATIONS

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ABSTRACT

Tuberculosis (TB) is re-emerging as a national health priority. Healthcare providers have been attempting to address the challenge of providing preventative care as well as addressing TB cases through long-term treatment plans as these cases are identified. The migrant farm worker population has come into the spotlight as highly vulnerable to this disease with highly unsuccessful outcomes in prevention and treatment. Many factors contribute to this disturbing trend, including barriers related to a specific lack of cultural competence amongst health care providers for this specific patient population and patient related barriers associated with cultural beliefs, logistics such as transportation and clinic locations, and the transient nature of the farm worker lifestyle. Thus innovations to address these barriers to services are needed. There is a need to develop unorthodox service provision locations as well as the provision of appointment times that are suitable to the workers' needs. Interventions such as reducing wait times, providing meaningful incentives and the renovation of disease specific educational approaches may improve outcomes. Treatment strategies that incorporate the cultural beliefs and practices of this population may narrow the service gap considerably. The purpose of this case study presentation is to illustrate the issues associated with providing TB treatment to this vulnerable patient population and to discuss possible solutions and interventions to stimulate culturally competent communication and care.

INTRODUCTION

Two of the many challenges facing rural healthcare providers include the plight of migrant farm workers and the virulent resurgence of tuberculosis. These two challenges have combined to stress an already fragile network of health care systems as providers attempt to meet the problems of identification, treatment, tracking, and prevention in a constantly migrating patient population. Cultural sensitivity in health planning, communication and intervention is instrumental in making a meaningful connection with migrant farm worker patients. The following case study will illustrate some of the inherent problems that a health care provider may face when caring for a migrant patient with TB.

THE PROBLEM

Over the past five decades migrant farm workers have presented quite a complex problem for health officials. Villarejo (2003) found that even as late as 2001 there had not been any national statistics gathered on the size of the population, or its chronic health indicators. There are approximately 3-5 million migrant farm workers and their families living in the U.S. It is estimated that fifty percent of them are undocumented. The author also stated that the federal Migrant Health Program was serving only about thirteen percent of workers and their families. Migrant workers, mostly comprised of Hispanics of Mexican descent, struggle with many issues

that contribute to under service, such as: transience, severe financial limitations, illegal immigration status, isolation in their work and home settings, language barriers, and cultural norms and barriers limiting expansion of traditional folk themes (Gwyther & Jenkins, 1998). The healthcare service organizations also have factors that compound the inadequacy of services.

THE CASE

Jose, a 42-year-old Mexican National migrant farm worker, presented to a health department of a rural county with a chief complaint of inability to work up to par due to fatigue and shortness of breath. Jose's inability to function at his previous high level motivated his foreman, Raphael, to bring him to the health department. Further questioning, with the assistance of Raphael acting as an informal translator, revealed that Jose has become fatigued, weak, short of breath and has recently developed a blood-tinged productive cough. Jose also reports experiencing chills, night sweats, a subjective low grade fever and a loss of appetite. His sputum is reported as thick, cloudy, and most often, bloody. The cough started approximately 6 weeks ago and progressively worsened over time. His weakness and fatigue led to low productivity on the job and ultimately, the visit to the health department. Given that Jose had the classic symptoms of TB, protective masks were put into use and a certified translator is summoned to the exam room.

With the help of an experienced and empathetic medical translator, Jose reveals a significant family history of TB and diabetes. Jose is single and migrated from a very poor part of Southern Mexico. His father had recently died from uncontrolled diabetes and had a persistent cough at his time of death. Jose, his mother, sister, and brother had all persistent coughs and were supposedly treated for TB approximately 10 years ago. Jose is unsure of the medications used and the duration of treatment. Jose further reports that he had returned to Mexico 3 months ago for a short visit after his father's death, returning to the US 6 weeks ago to continue working. Given this history, the epidemiology department was asked to join in the evaluation.

CULTURAL DOMAINS

Five cultural domains were chosen to elaborate on the health problems associated with tuberculosis in the migrant population including communication, workforce issues, high-risk behaviors, healthcare practices, and barriers presented by the healthcare system itself. These domains are interconnected and exacerbate each other, weaving a stranglehold on efforts to stop the transmission and treatment of this deadly disease.

Mexican migrant farm workers tend to be non-English speaking, extremely poor, and illiterate. Guasasco, Heuer, & Lausch (2002) stated that because of this and the isolation of their work and housing sites, migrant workers tend to have minimal access to media or awareness of health education. The authors explained that communication between these close-knit family groups often lapse for many months with little extra familial contact as well. Transmission of health related information is limited, and written materials are useless as most people do not read, or write, at a level to understand health information pamphlets.

The family is the center of most farm worker's life. Guasasco, Heuer, and Lausch (2002) describe the traditional structure of the Mexican family system as patriarchal by form, with the family as the focus of work and lifestyle. Positive, up-beat relationships and strong relationships

between extended family members and close friends, along with the strong leadership of the men, give the family its priorities and values. Guasaso, Heur and Lausch describe the roles of men as workers, women as child bearers and caregivers, with a high value placed by both on productive work. Men do not seek nonemergent health care, as it takes them away from the fields. Women seek healthcare primarily for childbirth or for a sick child. Medical appointments can take up to a full day because of the waiting times in clinics.

Workforce issues are numerous: long hours of backbreaking work in fields; cramped transportation for long hours in trucks to and from fields; heat and exhaustion factors; exposure to agriculture toxins (insecticides, fungicides, herbicides) which may decrease immune function; and seasonal migration between harvests resulting in disruption of healthcare continuity. Villarejo (2003) found the above factors to be compounded by a lack of employer-provided health insurance and a lack of worker in-service training on health issues including toxin exposure management or hygiene, as well as language barriers, isolated locations, and an inability of migrants to pay for services. Given these factors, it is easy to understand how migrants may view healthcare as a low priority unless it is emergent in nature.

Many normal daily activities of farm worker families are classified as high-risk behaviors due to their cultural and healthcare practices. Transience leads to lack of follow-through and loss of patient contact with healthcare practitioners (Department of Health and Human Services [DHHS], 1992; Connor, et al., 2007). Periods of intense close-quartered communal living with several other families in substandard dwellings can lead to an increase in disease communicability and diminishing hygiene practices (Guasaco, Heuer, & Lausch, 2002).

Cultural healthcare practices have been identified as contributing factors to the growing epidemic of TB (Joseph et al., 2008). TB has an insidious onset of symptoms. A chronic cough does not prevent a worker from being in the fields, a mother from tending to her children, or a child from performing their role in the family. Secondly, as previously noted, this culture does not tend to proactively seek preventive care or nonemergent care. They often rely on folk healing remedies (Rodriguez, 1998). The early symptoms of tuberculosis would not trigger an emergent need for medical care and, thus, could go untreated for several years before the symptoms drive the patient into the healthcare setting. Thirdly, when a person becomes hospitalized due to symptoms, there is loss of contact with family due to transportation and isolation factors. Weathers (2003) found that fear of isolation could contribute to a postponing of treatment because the social consequences are so high.

The last domain to be explored in this paper is that of the healthcare system itself as a contributing factor. Healthcare practices for low-income populations are not geared to be culturally sensitive (Rodriguez, 1993; Castro & Ruiz, 2009). Rodriguez found relationships between patient and practitioner to be fraught with difficulties due to language problems, the inflexibility of site-based care provision, lack of childcare at sites, and an environment insensitive in approach to care and treatment or education. Castro and Ruiz (2009) reported that patient satisfaction has been identified as a key element to increasing a patient's utilization of medical care. The authors state that the inadequate cultural competence training of providers creates a disparity in the therapeutic provider-patient bond. Characteristics reported by both provider and patient are distrust, misperceptions, misunderstanding, and low follow through rates. These issues, compounded by the transient nature of the farm worker's life, has lead to a lack of successful interjurisdictional care coordination for this patient population which has significantly impaired successful treatment outcomes for TB among migrant workers and their families.

Finally, even the primary health goals of the farm workers and the U.S. government are at odds. Healthy People 2010 (U.S. Dept. of Health and Human Services, 2000) recommended several goals and priorities for healthcare, including the eradication of TB and a significant decrease in obesity and diabetes rates for all adults. Tuberculosis, obesity, and diabetes are all preventable diseases commonly seen in Mexican migrant farm worker families. These are not recognized as health priorities among migrants until they trigger a situation that greatly disrupts the family (Guasasco, Heuer, & Lausch, 2002; Weathers, 2003; Wilson et al., 2000).

Detecting and preventing TB is difficult in migrant farm workers. The combination of the issues within the five domains makes identification and prevention/treatment a complex and complicated process. Its insidious nature contributes to desensitization and discounting of risk factors or symptoms until significant damage is done to the body and there has been long-term transmission of the bacteria to others (Wyss & Alderman, 2006). The extended course of medication for treatment leads to noncompliance issues, which may be contributing to the increase in antibiotic resistant strains of TB (Restrepo et al., 2007).

The DHHS conducted a survey over the past fifteen years which revealed that the “risk of TB among farm workers was estimated to be six times that of the general population” (3). Their testing showed that 35% of migrant farm workers in North Carolina have positive skin tests with 68% being in those over the age of 34.

The standard course of treatment for uncomplicated TB is a six-month regimen of an antibiotic cocktail. Ongoing tests of sputum and blood draws are required to determine drug resistant strains of TB and hepatotoxicity (Kandula et al., 2004). Kandula, et al. (2004) noted that patients were hesitant to comply with blood draws due to a belief that they would be drained of energy. Complicated or advanced tuberculosis requires weeks of isolation in the hospital along with extended courses of medication, increasing patient bias against intervention.

Healthy People 2010 (U. S. Department of Health and Human Services, 2000) prioritized the need for significant gains toward eradication of TB by 2010. This actually complicates intervention further for migrants. The goals outlined in Healthy People 2010 require ongoing observed treatment and follow up for patients. It requires preventive care for most farm workers and their families including a six-month regime of antibiotic cocktails for the 2-3 million people who are the most vulnerable to disease transmission. Farm workers are in constant motion nationally in the migration streams and transition in and out of multiple jurisdictions annually. There is also a requirement of up to a year of preventive care for those who are HIV positive. Healthy People 2010 supported the structure of penalties for medication noncompliance in a population very difficult to track and treat comprehensively with present resources.

THE CASE CONTINUES

On physical exam Jose was found to have a low grade fever and several dull areas over the upper lobes of the lungs are percussed. Auscultation detects bronchial breath sounds with mild wheezing and crepitant rales. There is no detectable sign of other body part involvement, but to totally rule out this possibility, further evaluation would be needed.

*The chest x-ray shows nodular lesions with patchy infiltrates in the upper lobes, a few cavitory lesions, hilar adenopathy and diffuse scar tissue. Sputum stain revealed nonmotile acid-fast bacilli consistent with TB. Given this information, a diagnosis of recrudescent TB is made and antitubercular therapy was started. The sputum culture returns with a positive diagnosis of *Mycobacterium tuberculosis*. A TB skin test is planted but never read. Blood sugar at the time of*

the exam was 180 postprandial. Fasting blood work is ordered including, CBC, CMP, lipid panel, hepatic functions, hepatitis screen and a 2 hour glucose tolerance test. Jose did not come in for the appointment and labs were not drawn.

The treatment consisted of daily doses of the appropriate antitubercular agents for 9 months. Jose was given the first 3-month supply of the medicines and is instructed to return for a follow-up appointment in three months. Appropriate teaching is given to Jose and Raphael stressing the need to be compliant with the medications, have his lab work completed, and the importance of completing the 9 month treatment program.

Jose never returned after the initial appointment. Necessary lab work, primary care, and antitubercular refills were not done. Multiple attempts to make contact with Jose were made but were unsuccessful. An epidemiology investigator was sent out to the last known residence and found that Jose had left shortly after the visit to the health department. A few of Jose's peers reported that Jose had left convinced that the epidemiology department was going to turn him in to immigration. Jose and his community had the misperception that their health was not the health department's primary concern. Given this information, it would appear that the health department, during this encounter, failed to communicate effectively with Jose and his community. Jose left with only the initial 3 months of treatment in hand, unless he seeks further health care and completes the 9 month course of treatment, he could be at an increased risk for developing and transmitting a resistant strain of TB. Jose's symptoms likely diminished with the first three months of treatment; allowing the TB to become dormant or resistant. Jose was never found but the investigator did find 6 other farmworkers in the camp with a persistent blood producing cough.

DISCUSSION

Unless there is a significant change in both the migrant farm worker culture and the culture of the traditional health care system, health outcomes for this vulnerable patient population are unlikely to improve and may actually worsen in the coming decade. Addressing the needs of both entities will require a significant redesigning of healthcare's approach to migrants. Issues and barriers that must be addressed include the establishment of realistic revisions in TB care and follow up to address the overwhelming numbers of migrants who should receive treatment and the major barriers inherent to this care. Culturally competent changes in the educational and outreach approaches for this patient population must be developed and implemented.

Redesigning the healthcare system for Mexican migrant populations should have two main mandates: 1) modify the system's structure, and 2) to prioritize adaptations for the migrants (Guasasco et al., 2002). The development of interstate/interjurisdictional/ interagency cooperatives that service the geographic streams of migrants needs to be a priority. These cooperatives should have multi-agency releases and case management plans for migrant groups as they transition between work sites. Building interagency data banks for charting and follow up care monitoring would give practitioners a concrete way to track, plan, and document healthcare in a centralized format.

Connecting designated teams of practitioners between sites will enhance continuity of care; decrease patients lost to disparities, and reduce noncompliance due to the lack of cultural priority (Guasasco et al., 2002). Incorporation of nontraditional supports for funding and service enhancement will enlarge and deepen the healthcare system's ability to monitor and serve

migrants in a cohesive and organized manner. These nontraditional supports can be through researchers at universities, utilizing graduate students from several disciplines in healthcare, and by providing a foundation for access to multidisciplinary services such as counseling, education, legal assistance and advocacy organizations.

The second mandate required of the healthcare system is to enhance accessibility of healthcare services to migrants. Changing the focus of care to that of the needs of the migrant worker and family members will likely increase the numbers of underserved migrants receiving health care. Changes may include providing flexible and variable clinic locations for receiving health care. The clinics need to have flexible hours and assist with childcare to meet the needs of workers and their families (Weathers, 2003). Having access to convenient mobile health care that has regular stops at the migrant community, the work site, and at the cultural gatherings and celebrations would also result in improved health outcomes for this population. Connor, Rainer, Simcox, and Thomisee (2007) describe a 13 year model of community interdisciplinary partnership which sends providers of medical and dental services to farmworker families where they live and work. This is a diverse collaboration of disciplines, both clinical and academic, that has a successful sustained history.

Reducing the wait times for appointments can greatly reduce the stress of utilizing healthcare services. Most women bring their children with them for medical visits and extensive wait times can make child management very frustrating for them (Castro & Ruiz, 2009). Moore, Saywell, Thakker, and Jones (2002) reported that the foremost factor in patient dissatisfaction was wait time. For farm workers, time is an essential commodity. It is easy to see the implication: the more time out of the fields, the more income is lost, and the less likely they will utilize services in the future

The use of meaningful incentives for participation in educational, preventive, and treatment may increase participation in these high priority activities (Kent, 1993). Incentives are a long used mechanism to draw and maintain participation in healthcare activities. Culturally sensitive, financially beneficial and socially appropriate incentives need to be developed to elicit initiation of services and maintain compliance with service components.

Cultural congruence will be required to increase the effectiveness of TB care for the migrant farm worker (Weathers, 2003). A re-evaluation of treatment methods in light of cultural values and priorities should lead to more effective treatment strategies, and thus reduce noncompliance and other stressors on the healthcare systems. Kandula, et al. (2004) report on the exploration of medication delivery options that may decrease the length of treatment and number of doses required for treatment. This would enhance compliance by simplifying treatment and preventive care for those who are identified now, and for the estimated 2-3 million who will need to be treated in the next five years to meet the Healthy People 2010 goals.

The final piece of the picture is to renovate the educational approaches that have failed over the past few years. The focus should shift to building communication and cultural bridges. Guasasco, et al. (2002) reports the utilization of bilingual healthcare outreach workers who come from the traditional cultural background and are trained to provide a variety of services from translation to patient education. Developing consistent teams of practitioners to increase continuity and relational aspects of care can improve patient satisfaction and compliance. Incorporating the highly valued persons and the community's leaders in the culture as partners in education and support is important. These stakeholders include clergy, folk practitioners, traditional healers, and men and women in leadership roles in their community. Through the combined efforts of stakeholders and culturally competent providers, trust and rapport with the

health care system may be established and improve health outcomes (Pender, Murdaugh, & Parsons, 2002). It will be important to develop tools and materials for education that are appropriate for the population in form and content will require that the community itself be mobilized as a stakeholder for their own care.

Evaluation of program effectiveness will take several years to gather data on the ever increasing numbers of Mexican migrant farm worker families. Given the strict guidelines and high expectations of the federal government for eradication of TB in this population, identification and preventive care strategies will become a tremendous effort to accomplish in the next five years. Unfortunately, the migrant populations are not readily identified as priorities and continue to experience multiple barriers to effective health care. It is important that support and funding resources are tied to evidenced-based programs for prevention and treatment to maximize health outcomes for this particularly vulnerable population.

REFERENCES

- Castro, A., & Ruiz, E. (2009). The effects of nurse practitioner cultural competence on Latina patient satisfaction. *Journal of the American Academy of Nurse Practitioners*, 21, 278-286. [[MEDLINE](#)]
- Connor, A., Rainer, L., Simcox, J., & Thomisee, K. (2007). Increasing the delivery of health care services to migrant farm worker families through a community partnership model. *Public Health Nursing*, 24(4), 355-360. [[MEDLINE](#)]
- Department of Health and Human Services Advisory Council for the Elimination of Tuberculosis. (1992). *Prevention and control of tuberculosis in migrant farm workers, recommendations of the advisory council for the elimination of tuberculosis. Recommendations and Reports*, 41(RR10). Washington D.C.: United States Government Printing Office. [[MEDLINE](#)]
- Guasasco, C., Heuer, L.J., & Lausch, C. (2002). Providing health care and education to migrant farm workers in nurse-managed centers. *Nursing Education Perspectives*, 23, 160-66.
- Gwyther, M., & Jenkins, M. (1998). Migrant farmworker children: Health status, barriers to care, and nursing innovations in health care delivery. *Journal of Pediatric Healthcare*, 12(2), 60-66. [[MEDLINE](#)]
- Joseph, H., Waldman, K., Rawls, C., Wilce, M., & Shrestha-Kuwahara, R. (2008). TB perspectives among a sample of Mexicans in the United States: Results from an ethnographic study. *Journal of Immigrant Minority Health*, 10, 177-185. [[MEDLINE](#)]
- Kandula, N., Dworkin, M., Carroll, M., & Lauderdale, D. (2004). Tuberculosis prevention in Mexican immigrants: Limitations of short-course therapy. *American Journal of Prevention Medicine*, 26(2), 163-166. [[MEDLINE](#)]
- Kent, J. (1993). The epidemiology of multidrug-resistant tuberculosis in the United States. *Journal of Clinical Medicine of North America*, 77(6), 1391-1409. [[MEDLINE](#)]
- Moore, J., Saywell, R., Thakker, N., & Jones, T. (2002). An analysis of patient compliance with nurse recommendations from an after hours call center. *American Journal of Managed Care*, 8(4), 343-351. [[MEDLINE](#)]
- Pender, N.J., Murdaugh, C.L., & Parsons, M.A. (2002). Health promotion in vulnerable populations. In *Health Promotion in Nursing Practice* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

- Restrepo, B., Fisher-Hoch, S., Crespo, J., Whitney, E., Perez, A., Smith, B., et al. (2007). Type 2 diabetes and tuberculosis in a dynamic bi-national border population. *Epidemiology and Infection*, 135(3), 483-491. [[MEDLINE](#)]
- Rodriguez, E.R. (1998). Addressing the needs of diverse racial/ethnic populations. In Roth-Roemer, S., Robinson, S., Kurpius, & Carmin, C., (eds.), *The Emerging Role of Counseling Psychology* (pp. 356-393). Evanston, IL: Norton.
- Rodriguez, R. (1993). Violence in transience: Nursing care of battered migrant women. *AWHONN's Clinical Issues in Perinatal and Women's Health Nursing*, 4(3), 437-40. [[MEDLINE](#)]
- U.S. Department of Health and Human Services. (2000). *Healthy People 2010*. Washington D.C.: U.S. Government Printing Services.
- Villarejo, D. (2003). The health of U.S. hired farm workers. *Annual Review of Public Health*, 24, 175-93. [[MEDLINE](#)]
- Weathers, A.C. (2003). Migrant farm workers focus of new research: Hidden population doesn't get regular care. *Medical Ethics Advisor*, 19(7), 79-83.
- 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(5), 209-215. [[MEDLINE](#)]
- Wyss, L., & Alderman, M. (2006). Using theory to interpret beliefs in migrants diagnosed with latent TB. *Online Journal of Nursing*, 12(1), 7. [[MEDLINE](#)]
- Zoucha, R., & Purnell, L.D. (2003). People of Mexican heritage. In L.D. Purnell, & B.J. Paulanka (eds.), *Transcultural Health Care: A Culturally Competent Approach* (2nd ed.) (pp. 264-278). Philadelphia: F.A. Davis Company.