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A Qualitative Study of the Work Environments of Mexican Nurses

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Abstract

Background—Studies of the nursing work environment are increasingly common in developed countries, but few exist in developing countries. Because of resource differences between the two contexts, researchers need to clarify what aspects of the work environments are similar and different.

Objectives—To study the perspectives of Mexican nurses about their work environments to determine similarities and differences to results from developed world studies.

Design—A secondary, directed content analysis of qualitative data from 46 Spanish language interviews using workplace-oriented themes

Setting—Purposively selected Mexican states from four regions of the country that reflect the country's socioeconomic differences.

Participants—Practicing Mexican nurses with at least one year of clinical experience and currently working in nursing. Participants were recruited through convenience and snowball sampling techniques.

Methods—Initial data collection occurred in 2006 and 2008 during a broader study about professionalization processes that occurred in Mexican nursing between 1980 and 2005. The secondary, directed content analysis focused on an in-depth exploration of a central theme that emerged from the two original studies: The Workplace. The directed content analysis used themes from the global nursing work environment literature to structure the analysis: Professional relationships, organizational administrative practices, and quality of care and services.

Results—The three themes from the global literature were relevant for the Mexican context and a new one emerged related to hiring practices. By category, the same factors that created positive or negative perceptions of the work environment matched findings from other international studies conducted in developed countries. The descriptors of the category, however, had different conceptual meanings that illustrate the health system challenges in Mexico.

Conclusions—Findings from this study suggest that studies that seek to measure nursing work environments will most likely apply in Mexico and other Latin American or middle-income

countries. Instruments designed to measure the work environment of nurses in these countries may prove relevant in those contexts, but require careful adaptation and systematic translations to ensure it.

Keywords

Cross-language research; Mexico; nurses; secondary analysis; qualitative research; work-environment

A variety of factors have increased the international focus on healthcare human resources toward capacity building, from reprioritization of the workforce as a key policy issue by the World Health Organization to the growing incidence of non-communicable diseases in low and middle income countries (UN, 2011; WHO, 2006). Nurses are a key part of that agenda, yet studies of the nursing workforce in developing countries, outsides of migration studies, are few. International research about nurses, their work environments, and the relationship to patient outcomes in hospitals or communities has mainly occurred in the developed world and under a common assumption that nursing is fairly similar across borders (Spence Laschinger et al. 2001). Common themes about the work environments in developed countries illustrated in dozens of studies include nurse-to-patient ratios at the unit level (known as staffing) and positive working environments.

While some similarities exist among nurses around the world, capturing the contextual differences that affect their profession and roles in their country is a key part of developing appropriate nursing workforce policies for different contexts. For example, hospital staff nurses may universally report some kind of supply management issue, usually related to a lack of supplies. In one country that may mean no supplies for the month, another none for a week, another none for a shift. Describing and quantifying the impact of those kinds of differences is important for creating the evidence necessary to shape the nursing human resources development policies of the twenty-first century. Thus, stronger research foundations based on the contextual complexities where nurses find themselves working in developing countries are needed. With that in mind, this qualitative study attempts to examine how Mexican nurses, as a case example, view their work environments in order to help identify the thematic similarities and differences related to the context of nursing practice in a high-middle income country.

Background

Around 200,000 nurses comprise the body of professional nursing in Mexico and like nursing in the United States (US), educational levels vary widely across the profession from nursing high school (vocational diploma after 9th grade) to graduate degrees (Alatorre 1992, 2003, [SSA] 2007, Squires 2007). Salaries range from $300 to $1,500 per month for staff nursing positions and the private sector pays the least. Underemployment is a common problem for nurses in the healthcare system (Nigenda et al. 2006). Generally, nurses work in both the private and public sector, in hospitals and community clinics. There is some kind of nursing leadership representative in most public sector hospitals, usually a director of nursing. For private hospitals, a nursing director or equivalent position is usually only found in hospitals over fifty beds, but many private hospitals will forgo some kind of nursing leadership representative for nursing staff. Nurses have representation in the Ministry of Health through a national Chief Nurse, who oversees the *Comisión Permanente de Enfermería* and there is also a national nursing organization (CIE, 2003a; CNE 1989). While nursing research exists, it is only in its infancy and few studies address workforce topics.

The healthcare system in Mexico, like many other countries, is complex and a product of the national history. The public sector includes three hospital systems targeted at different social classes in Mexico. The *Instituto Mexicano de Seguro Social* (IMSS), regarded as the best public option in terms of quality of care, covers at least 40 percent of Mexicans with primary and acute care services. Government employees (~10 percent of the population) receive coverage through the *Instituto de Seguridad Social y Servicios para Trabajadores del Estado* (ISSSTE) which operates much like a health maintenance organization (HMO) with primary and acute care services provided at select locations in each Mexican state. The public system open to all Mexicans regardless of the ability to pay is the *Secretaria de Salud y Asistencia* (SSA) system and provides care to anyone without insurance and also operates the equivalent of US Level I trauma centers, known as Level III hospitals in Mexico, in regional locations throughout the country. Generally, the SSA system (with the exception of the Level III hospitals) has a poor reputation and suffered from many years of underfunding and corruption within the Mexican healthcare system. Finally, the private sector includes small private clinics with as few as five beds to larger private facilities with over 300 beds. Prices are as high as the local market will tolerate and many will accept private insurance, which few Mexicans can afford.

Despite circumstances like those in Mexico that create a great need for nursing workforce research, few studies about the Mexican nursing workforce exist. Those that do exist have examined labor wastage, social conditions, and the influence of the North American Free Trade Agreement (NAFTA) on the profession (Diaz Olivarietta et al 2001; Nigenda et al 2006; Squires 2011). Studies of the hospital work environments of Mexican nurses have not been conducted by either Mexican or international researchers. This study represents one of the first forays into that arena.

The global literature provides multiple examples of the challenges facing the nursing workforce across countries and where they work, each with their own strengths and weaknesses. It is important to note that a limitation of these studies is they have all been conducted in the US, Canada, or Europe. McGibbon and colleagues (2010) deftly wove an institutional ethnography that captured the dimensions of stress among nurses who work in hospitals in one of the few qualitative studies about work environments. Some quantitative examples include the initial studies by Aiken and colleagues about nurse staffing, education, and work environments on the quality of nurses' work lives (Aiken, Clarke, Sloane 2002; Lake & Friese 2006; McHugh et al 2011). A weakness of these studies is that they all come from the same national sample datasets of four states in the United States (US). Patient outcomes studies also repeatedly show the positive effects of nurse staffing on patient outcomes in the US, especially in places with supportive work environments (Bolton et al 2007; Blegen et al 2011; Needleman et al 2011). Van den Heede et al (2009) were able to replicate similar analyses with Belgian hospital data and show similar effects with nurse staffing and cardiac outcomes. All these studies provide valuable evidence for supporting appropriate staffing patterns in developed countries, yet they all come from sources with reliable datasets –something that does not always happen in developing countries.

Challenges to conducting nursing workforce studies in developing countries that could replicate the findings of the studies highlighted above usually relate to a lack of data, research capacity, and resources (Diallo et al 2003; Nigenda et al 2011). Most research conducted in these countries comes from outsiders who may or may not be familiar with the systemic complexities of developing world health services. Therefore, while those resulting studies provide much needed evidence that documents worker related systemic issues, they require careful evaluation by contextual experts to ensure the reliability and validity of their results. Finally, most studies place little to no emphasis on societal gender issues related to

the nursing workforce despite the fact that it is a significant issue in health workforce planning (Squires & Beltrán-Sánchez, 2009; Standing 2000).

Methodology

A qualitative approach that can study a concept prior to executing other kinds of workforce research can provide valuable insight into the context of nursing practice, the factors affecting the nurses' work environment, and other workforce issues (Pascale-Carayon & Ayse 2008). Rigorous cross-cultural research usually begins with qualitative work since those studies can provide excellent information about the nature of concepts in different cultures, how they manifest themselves in different contexts, and provide useful linguistic tools that can facilitate the translation processes required for survey instruments (Erkut 2010; Im et al. 2004; Tran 2009). A qualitative study, therefore, can provide the necessary contextual and conceptual descriptions needed for rigorous quantitative study designs and results interpretations.

The Parent Study

A two-phase study about the professionalization of Mexican nursing provided the data for this study. The parent study received internal review board (IRB) approvals for the study through Yale University (2005–2007), the University of Pennsylvania (2007–2009), and as required by Mexican institutions (Squires 2007; Squires 2011). The parent study sought to examine the professionalization of Mexican nursing between 1980 and 2005. A case study approach structured initial data collection processes, which occurred in two separate three-month intervals in 2006 and 2008. The first phase of the study collected data from Mexico City (central) and Oaxaca (south). The second phase of the study collected data from Nuevo Leon (north, border state) and Tamaulipas (gulf coast). The principal investigator (PI), who has spent over 15 years living and working in Mexico, had employed a culturally appropriate method for participant recruitment for the study that was rooted in personal networks and purposive, snowball sampling techniques.

A total of 46 semi-structured, Spanish language interviews with practicing Mexican nurses and 410 primary and secondary sources comprised the data for the parent study. In the sample, the interviewees were 89 percent were female (n=41) and 11 percent were male (n=5), with the ages ranging from 24 to 62 years. Reported educational level consisted of: 15 percent master's educated nurses, followed by 64 percent bachelor-educated nurses (BSN) and then 21 percent with technical nursing degrees. Among the participants, 30 percent were single/never married, 22 percent were single mothers, 60 percent married, 30 percent divorced. Regarding children, 60 percent had children with 35 percent of them living at home and under age 18. Institutional work experience for this sub-sample included: 60 percent IMSS, 20 percent ISSSTE, 20 percent SSA-Federal/State, 25 percent private hospital, and 40 percent in teaching or universities. Complete participant demographics from the parent study are found in Table 1.

The "workplace" was a central theme that emerged from the parent study of professionalization processes in Mexico. The PI concluded that a more in-depth explanation of the workplace theme was necessary to ascertain its complexity, explore the nature of the concepts as they occur in Mexico, and determine similarities and differences with studies conducted in the developed world. Highlighting specific role-based, workplace sensitive challenges Mexican nurses face was also necessary to address this gap in the literature.

Approach

A secondary analysis of the qualitative data was determined to be the most effective approach to meet the study's goal. Secondary analyses of qualitative data focus on more in-depth explorations of a specific theme or new question generated from a larger, parent study (Gladstone et al, 2007; Hinds et al, 1997). At the time the secondary data analysis occurred for this study, the IRB approvals from the second phase of the study (2008) remained active and covered the secondary analysis.

Because the analysis sought to specifically examine the workplace themes, the PI and colleague used directed content analysis techniques for coding workplace sensitive themes in the data. Directed content analysis draws from theories or pre-existing coding categories, but do not preclude the possibility of new categories or themes arising during the analysis process (Elo 2008; Hsieh & Shannon 2005; Patton, 2002). Since a uniform theory about the nature of nursing workplaces does not exist, the researchers drew from workplace themes that consistently arise in nursing work environment studies to guide the directed content analysis process: Quality of care, relationships between health workers, and administrative practices. If other themes emerged that appeared unique to the Mexican nursing context, those were allowed to emerge from the analytic process.

Because interviews were in Spanish the researchers, both fluent in Spanish but with Anglo and Hispanic identities, employed a bilingual coding technique where the researchers kept the data in the original Spanish format but completed the coding in English. To control for possible translation errors, the researchers then compared their coding results together to evaluate the dependability and confirmability of the results (Lopez 2008; Squires 2008, 2009; Twinn 1997. An outside, disinterested auditor who was also bilingual in Spanish further confirmed the rigor of the translations, a recommended methodological step (Larkin & Dierckx de Casterlé 2007). The bilingual, comparative coding technique proved useful for blending the expert perspectives of the two analysts into the analysis and added greater depth to the secondary analysis process. The approach also helped to operationalize functions of language and clarify symbolic meanings found throughout the interviews (Barthes and Duisit 1975).

Findings

From the analysis, the three initial themes (quality of care, relationships between health workers, and administrative practices) used for coding appeared consistently throughout the data. "Hiring structures" was the only new, significant theme to emerge from the secondary analysis and researchers familiar with developing world health system contexts will not find this surprising. Generally, the study revealed that the nature of the Mexican nurses' workplace environments is complex and a product of the country's history. Some similarities do exist with findings from developed countries, yet contextual differences abound that could potentially affect future analyses related to patient outcomes and workforce production. The following sections will illustrate the dynamics of the themes in the Mexican context. All names of nurses quoted in this study have been changed for privacy purposes.

Hiring Structures

Participants in this study described hiring practices resulting from health system reforms as the main obstacle to obtaining a job as a nurse. Document-based evidence for this study, however, shows the problem has historical roots going as far back as the 1970s. First, economic development plans from the 1970s show the Mexican State set a policy that prioritized the hiring of auxiliary nurses in double the numbers of formally educated ones

(SSA, 1974a, 1974b, 1984). Cervantes Mota (1978) wrote about the resulting consequences of this policy to the hospital setting:

> Health-system administrators have a tendency to save wherever possible with regard to qualified nursing human resources. These factors influence the management environment of the workplace, fatigue, emotional stress, the indiscriminate hiring of unqualified personnel, and the use of nursing students as cheap labor. This diminishes the service provided by the organization and the quality of care (p. 27).

Additional studies that examined barriers to new nursing graduates getting jobs show this had not changed significantly by the 1990s (Müggenburg, 2004; Müggenburg, et al., 2006; Müggenburg et al., 2000).

Nurses interviewed for this study consistently described similar circumstances in the present day when they reported that hiring practices of State-run healthcare institutions are rife with politics complicated by unions, physicians, and the Ministry of Health. One reason for this is that unions and the hospital administrators share control over vacancies. This creates a fractured hiring process that often places overqualified workers into positions that do not match their education level or skill set. Even though a shift occurred in the 1990s, which changed emphasis in nursing education toward a bachelor's degree, Maria Elena, a BSN prepared nurse now with four years experience provides a good example of an inexperienced nurse trying to get a job as she described what it took for her to get her first job at a government facility.

> "So, I graduated and did my social service but then my school took another year after that to get my transcript and credentials together, and nobody hires you without those. Then I applied everywhere but I watched nurses with less education than me get jobs before me because they knew somebody in administration or in the union who got them in faster, and even that was just for per diem work. So then I go to the private hospitals and apply there and they have jobs, but they pay $350 a month and you work 12 hour shifts, five days a week and have no benefits, no job security, nothing. So I eventually I got a per diem job because that gave me a better shot at getting something full time that paid [well], even if it would take years."

All nurses in this study with less than ten years of experience, usually under the age of 35 and regardless of education level, described enormous difficulties trying to obtain a full-time position with benefits in both State and private hospitals. Contract work (e.g. per diem) was usually readily available with no guarantee of work hours nor benefits, little job security, few labor protections, and requires floating between units. The contracting system also allows administrators to quickly get rid of anyone they perceive as underperforming or troublesome, leading to a significant amount of subjectivity about worker performance. The system also leaves a generation of young women in their childbearing years without health insurance, since nurses' salaries are not high enough for them to be able to purchase insurance that might cover their medical expenses or those of their family members.

Professional Relationships

Participants in this study identified three sets of relationships that significantly affected their work environments: Nurse-physician, nurse-nurse, and nurse-administrator. Gender dynamics pervaded all aspects of these workplace relationships in Mexico. Evidenced through the participants' dialogue, workplace relationships significantly affected perceived quality of the work environment, stress levels experienced by staff nurses on the job, and affected their sense of professional autonomy to act in a crisis.

Nurse-Physician Relationships—Studies have widely documented the impact of the quality of nurse-physician relationships on nurses' perceptions of their work environments and job satisfaction (Kenaszchuk et al., 2010; Schmalenberg and Kramer 2009; Zangaro and Soeken 2007). In Mexico, the situation appears to be no different from anywhere else. Historically, the nurse's relationship with physicians in Mexico emerges from a complex history of role-based and gender oppression laced with bursts of support for professionalization (Alatorre 1992, 2003; Martinez et al 1985). Most nurses have been expected to follow physician orders without question, even if the nurse knew harm might come to the patient. Obedience and subservience were more important than the ability to think, as one professor described in an interview. Class differences between physicians and nurses also fueled some of these relational dynamics.

A young staff nurse with only two years of acute care experience and a bachelor's degree provided an excellent description of the dynamics many nurses face when working with some physicians:

> "Some doctors are very 'special.' [*How, like very picky about certain things?*] Yes, or they look at you like you are less than they are…But some are very nice and they treat you well, as a professional equal to them because you studied for a career."

Her words suggest that nurses with higher levels of education have helped create better working dynamics with physicians and mediated some of the class issues that have historically shaped the nurse-physician working dynamic in Mexico.

Generational differences also affect workplace roles and relationships of nurses and physicians. A 32 year-old nurse described working with older physicians, describing expectations related to unquestioning obedience, but still said, "…most of the time I think, 'those guys are old, and have no sense of humor'." Collectively, younger nurses currently working in hospitals, public or private, did describe improving relationships between physicians of their own generation. In contrast, however, nurses who worked in academia or administration reported more difficulties with the older generational dynamics that still pervaded management styles for many hospital administrators.

Gender is also an inescapable part of the workplace dynamic in the still largely traditional society of Mexico. Intragender dynamics also affect organizational communication lines between male physicians and female nurses. This type of communication extends from existing Mexican societal norms where a woman is expected to not challenge perceived male authority and proves difficult for many nurses to escape in the workplace. Atenea, a female, connects the inability to address patients care concerns to male physicians on the existing, gender-based organizational dynamic:

> "…well it's always like we have allowed [the physician] to believe that he is the one that knows the most and eventually, one will notice that they don't know much. You notice that he is afraid to do certain things, and when you notice that they are really afraid to do certain things, and that they don't like the challenges, they confront you with 'hey, but why?'. And you respond because of 'this and that', and they don't say anything because they know it's true and the problem lies with the physician, not you…. But they are the physicians and … you are still at fault, too, that they are like that. They believe that because no one ever puts a limit on what they do because it is always a "young lady" who responds to their needs and goes running to get what they need to meet them…"

As the nurse illustrates, the negative effects of this hierarchical placement of physicians limits patient advocacy by nurses as physicians disregard nurses input on clinical decisions. The same nurse also revealed how organizational level communication and intergender

dynamics contribute to a hostile workplace. In this scenario, the hostile workplace incident occurred after a physician publically humiliated her by calling her a "dog" for challenging his clinical decisions, even when one of them put the patient at risk for harm due to an order for a wrong medication.

In an effort to change this dynamic, Santiago, a male, described how he tried to teach his female colleagues to act differently around physicians. For him, the issue was not as much a matter of gender, but of generating respect for the nursing role from physicians and fostering a greater sense of equity between the two. He described how treating physicians as colleagues and not superiors was difficult for many nurses. It involved overcoming what he saw as Mexican women's ways of ingratiating themselves with men and sacrificing their own needs. He explains,

> "…sometimes nurses, to get on the good side of physicians, will make them coffee and bring them a snack. I try to tell my co-workers, if you're going to do that from the beginning, make sure you're not doing it when you have a lot of work to do, because the docs get used to it, really quickly. I try to tell them to make it more balanced, like you go get the coffee and I'll get the cookies."

Santiago's description portrays a common gender dynamic inside Mexican hospitals: The nurse sacrifices her own time spent with patients to develop a positive relationship with the physician through subservience. His attempts to teach his female coworkers a more equitable approach to nurse-physician relationships are further supported with statements from another male nursing professor from the study. The professors believed that increased professionalism in nursing behaviors, when interacting with physicians, would help to improve working relationships and mediate the effects of gender socialization.

Other nurses in the study indicated that they believed professionalism, fostered by a bachelor's degree level of education, promoted equity between nurses and physicians. Professionalism in nurses, for them, meant that they provided high quality information to physicians when reporting about a patient's status, asked appropriate questions, contributed opinions that help formulate the plan of care, sought assistance when necessary, and acted in a non-submissive way that showed the physician that respect was expected.

Nurse-Nurse Relationships—Nurses' ability to work together also affects the overall working environment. Mexican nursing journal articles indicate that intraprofessional relationships in the Mexican nurses' workplace have always proved complex and are not necessarily positive (Navarro 1992).

Generally, nurses in this study recognized the negative effects of poor workplace relationships within their own profession and attributed some of the issues to multiple entry levels into the profession. Different experiences and educational levels among nurses appears to be a significant and growing source of dissatisfaction with nurse-nurse working relationships and one that has implications for teamwork in healthcare organizations. Generational tensions also manifested in this study, as nurses under 35 perceived more teamwork occurring with nurses their own age as opposed to older staff nurses. Rea's exemplar of the problem and her frustration with this dynamic in her own workplace illustrates it well. She described what it was like to work with older nurses with significantly less education and how it affects her ability to do her job.

> "When there is a lot of work to do, it's really hard to keep telling them 'listen, do it this way or don't do it that way,' because they don't always do it in the safest way. And many…are reluctant to learn more, and so they get stuck in their way of doing

> things, saying ‘in my day I learned to do it this way so I’m going to keep doing it that way’.”

Rea’s statement indicates that concern over the quality of care provided by nurses with less education or by those who refuse to learn more to improve the quality of their work, thereby adding to her perceived level of workplace stress. The description also highlights a faction of Mexican nursing that appears to be very resistant to change.

Nurse-Administrator Relationships—Perspectives about nursing administration came from two sides in this study: Nurse administrators (NA) and those who worked with them. NAs often expressed frustration with not being able to operate their units as they would like or staff them as well. Many described the complex politics of health system hospitals and private hospitals as a significant burden on their work. Administrators were evenly split between those who perceived a certain level of autonomy to manage and those who felt subordinated to and by the medical director. Which dynamic they experienced affected how they felt they were able to manage general staff nurses. As an example, staff nurses who had negative experiences with nursing administrators often used phrases like “they are always in meetings” or “the same people always get the best opportunities” to describe their relationship with supervisors. The staff nurses also described cases of cronyism and favoritism in hiring and promotion, corruption with resource management, and a dearth of genuine leadership.

Intergender conflicts also influence administrative relationships, where male nurses often advance quickly into administrative roles. Hestia described a common dynamic in Mexican nursing: “…there are many people, I don’t know how many, that fear a male getting involved inside the nursing realm. This has been our space, one run by women for so long and we do not get many opportunities for advancement like that.” Males entering a traditionally female-dominated space, therefore, may be a source for workplace tensions. The depth of this tension, generational differences, and how to mediate it requires further exploration since workforce development can no longer afford to be gender-biased.

Organizational Administrative Practices

As dozens of studies have found, administrative practices and the culture of the organization affect nurses’ perceptions of their work environments and the Mexican nurses in this study were no different. Two categories emerged under administrative practices that shaped the Mexican nurses’ work environments: Staffing and burnout. Generally, in the current study, nursing professors over 45, who were familiar with the current Spanish language research literature, were more aware of burnout and its effects than their younger counterparts because of the research produced in the region on the topic. A comment by Deméter, a former OR and oncology nurse who now works as a professor, illustrates how burnout among Mexican nurses influences job changes. She described recognizing the symptoms of burnout in herself years later after attending a conference where a Mexican nurse researcher presented information on the topic. Her main reason for leaving a staff nursing position, she realized, was because she could no longer physically or mentally tolerate her working environment due to burnout. At the time, she said she thought, “My hospital work experiences have been enough. I don’t want to suffer anymore.” Similarly, Artemisia (a nurse with three years of experience) identified her sources of stress as the constant changes in practice environment from health system reforms. For this nurse, changes came primarily from floating and a fluctuating schedule, thus contributing to her self-described “high levels of anxiety” and even caused her to cry during the interview.

Nurses in this study reported a wide range of nurse-to-patient ratios experienced by themselves or their students when working in institutions. Nurses frequently described

daytime ratios for medical-surgical units as high as one nurse to care for twenty patients (1:20); pediatric nurses 1:5 to 10 for general units and 1:2 to 3 for pediatric ICU; and oncology nurses 1:5 to 8 patients with up to half of those patients receiving chemotherapy. All of these ratios were reported by nurses working in non-federal, state run facilities. Private hospital staffing reports varied the most as the majority of private hospitals in Mexico are no larger than 50 beds. Nurses who had worked in large private hospital facilities reported some of the best staffing levels, usually 1:5 to 6, but indicated that those numbers were insufficient to keep them working at a facility that had either a) a hostile management culture; b) low salaries compared to the public sector; c) wealthy patients who were perceived as "too demanding"; or d) some combination of the aforementioned. Meanwhile, nurses in this study who had worked in small private facilities often described being the only formally educated nurse in the facility, with the rest of the care provided by auxiliary nurses.

Afrodita summarized the effects of poor staffing on a nurse's morale when she said, "You can come in to work with all the desire to do a good job, but you don't get all the support that you need in order to provide the care that patients need." She further described how workplace support is tied to staffing patterns because nurses, especially new ones, rely on coworkers for support when they have challenging patients. In her view, a co-worker provided practice-based knowledge and another pair of hands for assistance with the physical aspects of the job. These seemingly intangible resources can mediate, in her opinion, some systemic workplace problems such as poor supply management.

Quality of Care and Services

Few nurses had positive things to say about the quality of care and services they were able to provide to patients while working as a nurse in Mexico. They assigned part of the responsibility to the health care system bureaucracy and the other to how members of the profession contributed to poor quality of care and services. What emerged as the most concrete example of problems with quality of care and nursing services was in the area of medical supply inventory management. Many staff nurses in the study commented about the supply situation in Mexican hospitals. Of note, professors or those not working directly with patient care were less likely to discuss the current state of supply management in Mexican hospitals, but they occasionally provided stories from their staff nursing experiences. This provided a portrayal of the effects on the health care system of the peso devaluation and the resulting economic crisis of the 1980s, and suggested that it has been an issue since that time period. Otherwise, it was clear from the study that medical supply inventory management in State managed facilities varied widely. They described, for example, a lack of clean sheets for obstetrical services, a lack of curtains to help provide privacy for patients sharing rooms, and altering how they performed procedures because of a lack of supplies. Nurses universally agreed that private hospitals were usually well-supplied with the tools needed to provide nursing care.

Two accounts from staff nurses in this study beautifully illustrate how medical supply inventory management problems translated into increased risks for patients and nurses in the workplace. The first comes from a new nurse, Lea:

> "Sometimes we get critical patients, we need oxygen so that…so that they can stabilize, right? But sometimes we don't have it, and so you go running around and then maintenance has to install an oxygen tank…but there is no oxygen for the whole service."

This nurse, with about a year of working experience, described a situation where a lack of supplies, even in her Level III hospital, inhibited her ability to respond to emergency situations. She provided other examples when her responses to critical situations with

patients were delayed because she had to run around the hospital looking for what she needed.

A second story illustrates the consequences of medical supply inventory management issues. Bartolo, a married male nurse in his mid-thirties, described how poor hospital management practices can affect the availability (or lack thereof) of supplies:

> "I went to work in Nephrology where we took care of all kinds of patients with kidney problems. We did peritoneal dialysis, the old style with only one bag because they weren't buying the double bag system. So you worked with the bag with only one connection and we had to measure the peritoneal fluid by cutting the tube with a razor blade and pouring it into a cylinder. It was very risky because we could have gotten cut. The bosses kept insisting we do it this way, without gloves and even though so many of those patients are likely to be infected with hepatitis. I spoke out about this poor practice and that's when I started to have problems."

He also described how some hospital administrators in Mexico attempted to save money by not providing "modern" equipment. He perceived that these management practices affect the quality of care provided to patients and increases the risk for worker injuries. Bartolo's story concluded with him voluntarily quitting that particular job and in fact, being "encouraged to leave" by the administration because he "complained too much" about the risks to workers and patients resulting from the supply issues.

A lack of supplies also increases workplace stress on nurses. A young nurse a few years out of school said, "This stresses you out, when you don't have medicines, when you don't have the supplies you need. Or if you have to ask a family member [to get something], and the family member gets upset." Her statement highlights how some Mexican healthcare institutions require family members to purchase medicines or supplies for their loved ones while they are in the hospital. This phenomenon occurs when a medicine or supply material is not on the hospital's standard list or they simply run out of it. It increases the financial burden on families, leaves the patient unlikely to get treatment, and adds to the stress they experience when a loved one is hospitalized. For nurses, it complicates the relational dynamic they have with the family. The lack of supplies is not the nurse's problem, but they bear the brunt of familial frustration and perceptions about quality of care provided by the institution.

Also closely tied to nurses' positive perceptions of quality of care was the efficacy of the administrator in navigating health system politics. Hestia, a pediatric hospital administrator with a high level of "political" efficacy, provides an excellent example. She obtained extensive educational resources to provide specialized training in her organization and stated:

> "On the nursing side, I have two post-graduates, coordinators of pediatric nursing and nurse intensivists. In addition, I have professional specialty level courses and workers who aspire to improve their specialty training and we are able to prepare them. I have the certificates. I have five specialty courses right here. And only for here."

Hestia's quote shows that sometimes nurse administrators, even in this lower resource setting, can obtain resources that can potentially have a positive impact on patient outcomes and nursing work environments. Administrator interviews also showed that the Mexican system rewards administrators through recognition programs such as Presidential awards of merit or a positive reception by state and municipal level politicians. Nonetheless, management issues persist as the technical competence of nursing administrators varies widely between hospitals. Nurses cited factors such as age of the manager, education level,

union politics, and lack of management training as the main contributors to quality of care issues where they worked.

Discussion

Findings from the study have implications for Mexican and global nursing workforce development. Results demonstrate that common themes about the nursing work environment that emerged from the developed world are relevant in Mexico. There is a message to health services and other researchers in the findings: Understanding the context is important when adapting and applying research results in other countries or setting future research agendas.

The examples of medical supply inventory management issues are good illustrations of how context matters, as nurses in high-income countries would not expect to be without medications for more than a few hours or materials for patient care for more than a shift. If a researcher used a survey that asked a nurse their opinion of if they have enough supplies to do their job, and the nurse disagreed, it is necessary to understand the source of the disagreement in order to address the problem from a management or policy perspective. The supply management issues illustrated in the findings also show how context may affect patient outcomes. The lack of medications and their timely administration, for example, could translate into longer lengths of stay, more procedures, lower patient satisfaction, increased patient morbidity, and more costs to the system.

Another key implication of this study is how gender and class issues weave through every major theme, from hiring practices to relationships to administrative practices. Findings show that Safa's (1995) work remains true today in that economics can often be used as a form of gender subordination, as the hiring difficulties nurses face hinder their ability to achieve economic stability. The role of gender and class in the study's findings should also sensitize researchers to the importance of them in health workforce studies and support the work of Hite and Viterna (2005), who studied the influence of both on working women in Latin America.

Specific to Mexican nursing, this study also illustrates several dynamics that constantly affect Mexican nurses. The nature of gender relations in Mexico clearly influences the nursing role and its performance expectations in the healthcare setting. Mexican female nurses, as evidenced through these interviews, also face strong pressures to adhere to societal norms and gender expectations. For them, this often means needing to work because they are the primary breadwinner yet still being expected to meet traditional cultural norms about maternal and familial roles. They often appear caught in the middle between the various actors within the healthcare system and society. Finally, women and men of lower socioeconomic status face significant barriers to accessing higher education in Mexico. Since most nurses come from poor socioeconomic circumstances, developing a professionally educated workforce that can meet the complex care needs of chronically ill patients will face additional challenges.

Class differences between nurses and physicians also appeared to affect the quality of their workplace relationships, something rarely discussed in contemporary Western studies as influencing the quality of nurse-physician workplace relationships. Previous studies of gender and class issues in Mexican health workers had focused largely on female physicians who, despite facing similar gender dynamics as nurses in the workplace, have more economic security and automatically elevate their class status when they receive the degree (Knaul, Frenk, Aguilar 2000).

Findings from this study suggest several areas for further research in Mexico and other countries. Studies that examine the organization of work, benefits, and other factors that

help or hinder a nurse's ability to obtain and maintain a job in relation to society's demands on their gender or class ascribed roles would facilitate long-term workforce planning. Since an administrator's political skills appear to make a positive difference in how many resources an organization can obtain for nursing personnel, even in a low resource setting, an ethnographic study that captures how administrators navigate the system would provide insight on where system efficiency and accountability could be improved and the impact on nurses.

Despite the strength of the findings in reinforcing the relevance of work environment issues in nursing across borders, a few limitations do exist. The first relates to a common limitation of secondary qualitative analyses which is the inability to verify findings with the original interviewees (Hinds, Vogel, and Clarke-Steffen 1997; Thome 1998). Additionally, despite the linguistic fluency of the PI and the assistant in Spanish and dependability checks by a native Mexican, as with any study involving translation the bilingual coding process poses some risk for conceptual drift during the translation process (Squires 2008, 2009; Twinn 1997). It is also noteworthy that the resulting sample of participants was not typical of Mexican nursing since over half had bachelor's degrees or higher and therefore, may have biased responses. The sampling bias also occurred due to the purposive, snowballing techniques used to recruit participants. It is a common limitation associated with that sampling technique in qualitative research (Patton 2002). Additionally, the views of private hospital nurses may not be adequately represented since few nurses in this study had worked in private hospitals. Finally, researchers are cautioned not to generalize the findings to other countries, even though regional trends in nursing may make them more relevant for nurses in Latin American countries.

Nonetheless, results from the study will have both methodological and policy implications for health services researchers attempting to expand their techniques and ideas into global contexts. Many of the policy implications for the nursing workforce have already been discussed here. From a methodological perspective, the study suggests that in countries where nursing workforce research is just beginning, qualitative research conducted prior to or in conjunction with a larger quantitative study may provide useful contextual data that can help with the interpretation of quantitative data results. The study also suggests that some of the survey-based studies about nursing work environments conducted in Western countries might be able to produce internationally comparable results in Mexico, with careful planning.

In conclusion, many people knowledgeable about the nursing profession and its challenges will find the quotes from the Mexican nurses in this study familiar and some may consider the findings as reinforcement that nursing issues are more or less the same everywhere. As health systems around the world attempt to scale-up their services or improve the quality of existing ones, researchers who seek to influence nursing and healthcare human resources workforce policy need to demonstrate how they accounted for contextual factors when presenting the results of studies derived from methods used in the developed world.

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What is already known about this topic

- Work environment studies in nursing increasingly show similarities across countries related to staffing, quality of care, burnout, and administrative issues.
- Mexico faces nursing human resources development challenges in the areas of production and retention.
- Few studies exist about the Mexican nursing workforce and factors affecting their work environments.

What this paper adds

- Demonstrates that themes that commonly emerge in high-income countries that affect the nurse's work environment also appear as factors for nurses who work in a lower income setting.
- Highlights the importance of understanding the nature of the conceptual and contextual differences related to the work environment that occur in each country in order to accurately interpret the results of nursing workforce research.

Table 1

Demographic Data of Sample [Female (n=41), 11 Male, (n=5)]

Age (Years)		
Mean	43	
Range	24 – 62	
	#	%
Civil Status		
Single, never married	13	30%
Married	22	48%
Divorced	11	22%
Children		
Single mother	16	34%
Have children	27	60%
Children under 18 at home	17	35%
Educational Level *		
Technical degree	10	21%
Bachelors degree	29	64%
Masters degree or higher	7	15%
Institutional Work Experience **		
IMSS	27	60%
ISSSTE	9	20%
SSA	12	25%
Private Hospital	12	25%
University	18	40%
Nursing Practice Area During Career **		
Medical-surgical	23	50%
Operating Room	4	8%
OB/GYN/Women's Health	4	8%
Intensive Care Unit	23	50%
Pediatrics	9	20%
Public Health	9	20%
Administration	9	20%
Education/Staff Development	14	30%
Other	5	10%

* Reflecting the multiple education entry system present in Mexican nursing, many nurses will have multiple degrees; therefore, numbers will not add up to 100%

** Numbers will not add up to 100% because of Mexican nurses tendencies to work multiple jobs or it is a reflection of career fluidity.