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A Comparison of Nursing Service Demand in Title 1 Schools and Non-Title 1 Schools

Karen Ray Stratford
University of Nevada, Las Vegas, stratfo4@unlv.nevada.edu

A COMPARISON OF NURSING SERVICE DEMAND

IN TITLE 1 SCHOOLS AND

NON-TITLE 1 SCHOOLS

By

Karen Stratford

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Nancy Menzel, Ph.D., Committee Chair

Janelle Willis, M.S.N., Committee Member

Lori Candela, Ph.D., Committee Member

Chris Cochran, Ph.D., Graduate College Representative

Tom Piechota, Ph.D., Interim Vice President for Research &
Dean of the Graduate College

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ABSTRACT

A COMPARISON OF NURSING SERVICE DEMAND IN TITLE 1 SCHOOLS AND NON-TITLE 1 SCHOOLS

Children from low-income families are known to struggle academically, but lack of health services may also impact their education. School nurses must identify and manage health problems in the school-age child to improve academic success. Unfortunately, the school nurse-to-student ratio may limit the amount of time nurses can give to the recognition of health problems and appropriate follow-up. The Elementary and Secondary Education Act of 1965 provides Title 1 funding to schools whose enrollment includes at least 40% of low-income families. These federal funds are intended to be used to bridge the achievement gap between low-income students and other students. It was hypothesized that Title 1 schools are more susceptible to increased nursing service demand due to the academic and health disparities among low-income students. This cross-sectional correlational study sought to determine whether there were significantly more special education physical assessments, referrals (vision, dental, hearing, and medical), and occurrences of assisting students with community resources in Title 1 schools as compared to non-Title 1 schools. Results of a one-way MANOVA found significant positive relationships between the school type (Title 1, non-Title 1) and physical assessment, referrals, and accessing resources. Title 1 schools reported significantly greater nursing demand as compared to non-Title 1 schools. The survey results support prior research findings that there are more health disparities and academic difficulties among the poor. School nurses are better able to identify and assist these students if staff assignments take into consideration the increased nursing demand in Title 1 schools.

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CHAPTER 1

INTRODUCTION

Background and Significance of the Study

Poverty is a growing problem in the United States. In 2010, the National Center for Children in Poverty reported that among all children less than 18 years of age, 21% live in poverty and 44% live in low-income families. Children represent 34% of all people in poverty. Unfortunately, the number of children living in poverty and low-income families has steadily been on the rise. In 2010, 44% of children lived in low-income families as compared to 40% in 2005. Black, American Indian, and Hispanic children are twice as likely to live in low-income families as compared to White or Asian children (NCCP, 2012).

Economic insecurity, race/ethnicity, and parents' educational attainment and employment are some influencing factors for those in low-income or impoverished families (NCCP, 2012). Families in poverty are more likely to be headed by a young, single parent who has low educational attainment and is unemployed or has low earnings (Brooks-Gunn & Duncan, 1997). Adequate housing is difficult to access, as most live in racially segregated housing that is substandard or live in public shelters, government subsidized housing, multi-family units, on the streets, or in their cars. Many families do not have transportation due to the financial burden of monthly payments, registration and insurance costs, and maintenance fees. The public transit systems are the primary means to get to work, appointments, and child care services (Price, McKinney, & Braun, 2011).

As economic hardship and job loss increases many Americans are falling below the federal poverty level. The number of schools receiving federal funding, when

enrollment includes at least 40% of low-income families, is rising. Title 1 funds are provided to support and assist low-income students to meet State academic standards (U.S. Department of Education, 2011).

Title 1 was enacted under the Elementary and Secondary Education Act in 1965 (U.S. Department of Health Education and Welfare: Office of Education, 1969). Federal funds are provided to bridge the achievement gap between low-income students and other students. The purpose of Title 1 funding is "to ensure that all children have a fair, equal, and significant opportunity to obtain a high quality education and reach, at minimum, proficiency on challenging State academic achievement standards and state academic assessments" (U.S. Department of Education, 2004). In 1994, the policy was amended to address the needs of at-risk students. The implementation of the *No Child Left Behind Act* in 2001 requires schools to make adequate yearly progress on state testing in order to continue receiving funds. Some of the ways schools disperse Title 1 funds are curriculum improvement, instructional activities, counseling, trainings, increased staff positions, and program improvement (U.S. Department of Education, 2011).

Children from low-income families are known to struggle academically, but lack of health services may also impact their education. Healthy students have better attendance rates and can focus on their education (Fleming, 2011). Children from low-income families often have poorer health outcomes due to difficulty accessing, understanding, and utilizing health services (Pettit & Nienhaus, 2010).

For children in poverty, school nurses are often the first healthcare professional the child may encounter. Identification and management of health problems in the

school-age child is essential for academic success. School nurses provide free health care for all public school children. This includes "screening, referral, health education, case management services, and direct clinical care for chronic and acute health conditions" (Fleming, 2011, p. 309). Identifying and assessing children with health disparities is a vital role of the school nurse. Referral to appropriate resources improves the student's health status and learning readiness.

The National Association of School Nurses (NASN) recommends a nurse-to-student ratio of 1 nurse to every 750 regular education students. Most states fall far below this recommendation with the average school nurse servicing at least two schools and over 1151 students (NASN, 2010). Confounding this problem is the rising number of students with chronic disabilities, the increased need for special education services, and the worsening economy. The high volume of students and their increased needs affect the amount of care and follow-up a nurse can provide. Staffing recommendations do not consider whether a school is Title 1 or not.

Although this study examined a large urban school district in Nevada, it is hoped that this research may be applied to other school districts with Title 1 schools. The consequences of not addressing this issue are that nurses will not have adequate time to provide quality care and follow-up to all students being served and that these students will continue to struggle academically due to unmet health needs.

Statement of Purpose

The high percentage of low-income and uninsured families with their associated needs is likely to increase the nursing service demand of the school nurse. The purpose

of this study is to determine if the nurses of the Clark County School District (CCSD) perform more special education physical assessments, initiate more referrals (medical, dental, vision, hearing), and assist more families in accessing resources in Title 1 schools than non-Title 1 schools.

Research Questions

1. Do school nurses perform more special education physical assessments at Title 1 schools as compared to non-Title 1 schools?

2. Do school nurses initiate more medical, dental, vision, and hearing referrals at Title 1 schools as compared to non-Title 1 schools?

3. Do school nurses assist more families in accessing resources in Title 1 schools than non-Title 1 schools?

CHAPTER 2

DEFINITION OF TERMS AND THEORETICAL FRAMEWORK

Definition of Terms

The U.S. Census Bureau establishes who is in poverty using the federal poverty threshold, determined by "a set of money income thresholds that vary by family size and composition" (2012). When the family's income is less than the measure of need, the family members are considered to be in poverty. Children who are "poor" are those who fall below the U.S. Census Bureau's established poverty threshold. Those who are considered "not poor" have incomes that are 200% of the poverty threshold or greater (U.S. Census Bureau, 2012). For a child to be considered low income, the family's taxable income for the preceding year cannot exceed 200% of the poverty threshold amount (NCCP, 2012).

Title 1 Schools are operationally defined as schools receiving federal funding through Title 1 because enrollment includes at least 40% low-income families. The CCSD distributes funds "upon the ranking of schools in order of poverty as measured by the number of students receiving free and reduced lunch" (CCSD, n.d.). These funds are distributed first to the schools highest in poverty. Title 1 schools have a mixture of general education and special education students.

Non-Title 1 schools are operationally defined as schools without Title 1 status that have a mixture of general education students and special education students. A special school is operationally defined as any school whose entire student population receives special education services. These are also known as self-contained schools.

For this study, nursing service demand is operationally defined as the nurses' duty to conduct special education physical assessments; issue vision, hearing, dental, and medical referrals; and assist families with accessing community resources. There are many other duties of the school nurse, but these three are the primary interest of this study.

Theoretical Framework

A theoretical framework is used to guide a research study. Predictions of how phenomena will behave are made on the basis of a theory, and these predictions are then tested through the research process (Polit & Tatano Beck, 2008). The theory of Self-Care Deficit was utilized to develop this research study. Dorothea Orem developed her Self-Care Deficit Theory of Nursing when considering the question, "What condition exists in a person when judgments are made that a nurse should be brought into the situation?" (Orem, 2001, p. 20). The basic premise of her theory is that people will take care of themselves if able, but when unable to care for themselves, a nurse should provide the assistance needed. In the case of children, nurses are needed when parents are unable to provide necessary care. Children in poverty lack the basic resources needed to access health care.

There are three interrelated theories that comprise Orem's theory. These are the theory of self-care, the theory of self-care deficit, and the theory of nursing systems. Self-care is defined as "the performance or practice of activities that individuals initiate and perform on their behalf to maintain life, health, and well-being" (George, 2002, p.127). When a person is unable to perform self-care effectively, there is a self-care deficit, and nursing care is needed. Orem (2001) identifies the following five methods of

helping that nurses may utilize: "acting for or doing for another, guiding and directing, providing physical and psychological support, providing and maintaining an environment that supports personal development, and teaching" (p. 56).

The theory of nursing systems proposes that nursing is the deliberate action of diagnosis, prescription, and regulation for persons with "health-derived or health-associated limitations in self-care or dependent care" (Marriner Tomey & Alligood, 2002, p. 195). Orem (2001) identified three classifications of nursing systems to assist the person in meeting self-care requisites. The wholly compensatory nursing system is for persons who are dependent on nursing services for all activities of daily living. The partly compensatory nursing system allows the person and the nurse to work together to perform self-care measures. In the supportive-educative nursing system, the person requires help with decision making, behavior control, and acquiring knowledge and skill. The nurse's role is that of a teacher or consultant (Orem, 2001).

Orem's theory is appropriate for this research study because children are dependent on adults to meet their self-care needs. There is a self-care deficit among students in poverty due to their associated health needs, emotional/behavioral needs, and cognitive and academic needs. Most families in poverty lack the necessary resources to assist their children in obtaining assistance for these deficits. The nurse is the most appropriate health care provider to intervene and provide assistance to students in the school setting. Students are dependent on the nurse for managing their healthcare needs at school. Nurses are also a primary source of information and consultation. Under the partly compensatory system and supportive-educative nursing system, the nurse can assist the student and parent in self-care activities and act as a teacher and consultant.

The goal of school nursing is to treat and manage health disparities, emotional/behavioral disparities, and cognitive disparities that limit the student's ability to actively engage in the learning process.

CHAPTER 3

REVIEW OF RELATED LITERATURE

Consequences of Poverty

Research continues to demonstrate the ongoing impact of poverty on children.

Children in poverty are surrounded by its effects at home, in school, in their

neighborhoods, and in their community (American Psychological Association, 2013).

Poverty affects the child's physical health, cognitive ability, school achievement, and

emotional and behavioral health. The *Healthy People 2020 Initiative* recognizes the

following influences on health:

- A high-quality education

- Nutritious food

- Decent and safe housing

- Affordable, reliable public transportation

- Culturally sensitive health care providers

- Health insurance

- Clean water and nonpolluted air (U.S. Department of Health and Human Services, 2010).

 Physical Health

Children born into poverty often have higher associated health risks and more

severe health problems than those who are not poor. They often lack their basic needs of

food, clothing, and shelter, so it is no surprise that they do not eat the recommended daily

fruits and vegetables or get the recommended levels of exercise needed for a healthy

lifestyle (Price, McKinney, and Braun, 2011). Poor children are also at risk for receiving

lower-quality health care or no health care which means they may not fare as well as wealthier children who have asthma, heart conditions, kidney disease, epilepsy, digestive problems, mental retardation, and vision and hearing disorders (Case, Lubotsky, & Paxson, 2002; Chen, Martin, & Matthews, 2006). Poor children typically do not have a primary care physician or a usual source of health care. Vaccinations in early childhood are significantly less leaving them vulnerable to communicable diseases (Case & Paxson, 2006; Chen et al., 2006). The Council on Community Pediatrics and Committee on Native American Child Health (2010) states:

> if health disparities in the United States were eliminated, such that all children had the same risks of adverse outcomes as those of the most economically privileged, the prevalence of poor outcomes (e.g. low birth weight, cerebral palsy, intellectual disabilities, psychological problems, child abuse, disabilities attributable to intentional and unintentional injuries) would be reduced by 60-70% (p. 839).

Children in poverty are more likely to be exposed to risk factors that compromise early development; such as prenatal exposure to drugs and alcohol, low birth weight, poor nutritional status, lead poisoning, and poor parenting (Brooks-Gunn & Duncan, 1997; O'Connor & DeLuca Fernandez, 2006; Pettit & Nienhaus, 2010).

Parental health literacy also affects children living in poverty. In 2009, 10% of all youth were without health insurance, and 15% of children in poverty were uninsured. Two-thirds of these children were eligible for insurance, but their parents were either not aware their child was eligible or found it too difficult to complete the necessary paperwork. Difficulty accessing and understanding health information and services affects a parent's ability to seek appropriate medical care and incorporate healthy practices into their child's life (Pettit & Nienhaus, 2010; Price, McKinney, & Braun, 2011).

According to the Centers for Disease Control and Prevention's Vital and Health Statistics report for 2011, 8.8% of poor children had no health insurance compared to 4% who are not poor. When examining usual places for health care for poor children, 38.5% go to a clinic (compared to 14.7% who are not poor), 57.8% go to a doctor's office (compared to 84.1% who are not poor), 1.6% go to the emergency room (compared to 0.2% who are not poor), 1.5% use the hospital as an outpatient (compared to 0.6% who are not poor), and 0.4% go to some other place (no difference). The survey also contains the parents' self-assessment of their child's health status. Those who are poor report 70.5% of their children are in excellent or very good health as compared to 89.9% for those who are not poor. Those who are poor reported 4.4% of their children have fair or poor health as compared to 0.9% of those who are not poor (U.S. Department of Health and Human Services Centers for Disease Control and Prevention, 2012).

Socioeconomic status (SES) is typically defined by "family income, level of poverty in the child's neighborhood, and educational attainment by parents" (Jordan & Levine, 2009, p. 60). Low SES is associated with a number of health risks. Low birth weight is more prevalent in those of low SES and is a direct measure of the quality of medical care received during pregnancy and the quality of the intrauterine environment for the baby. Low birth weight is often associated with preterm birth (born before 37 weeks gestation) and may cause cerebral palsy, blindness, respiratory complications, attention deficit hyperactivity disorder (ADHD), behavioral problems, reduced IQ, and mental retardation. The National Health Interview Survey shows that 9.3% of low birth weight babies were born to families with incomes less than $30,000, while families that earned more than $60,000 had a low birth weight rate of 5.6%. This higher increase

among those of low SES may be associated with lack of or a delay in prenatal care, improper nutrition, and vitamin deficiencies. Smoking during pregnancy also increases the likelihood of preterm birth and is linked with intrauterine growth retardation, behavior problems, and learning difficulties. Although difficult to ascertain accurate counts of its prevalence, alcohol and illegal drug use play a role in the development of the fetus (Case & Paxson, 2006; Pettit & Nienhaus, 2010).

Children from low SES have higher rates of hospitalization and greater activity limitations than those from higher SES (Case, Lubotsky, & Paxson, 2002; Chen et al., 2006). Low SES is associated with poor health behaviors, higher rates of injury, increased rates of smoking, and more sedentary lifestyles. Living in poor neighborhoods limits access to recreational facilities and fresh produce (Chen et al., 2006; Pettit & Nienhaus, 2010). While the effects of low SES are seen in all races, Chen et al. (2006) found that White and Black children had more health disparities than Hispanic and Asian children. This is thought to be related to increased social networks and community support for healthier behavioral outcomes in the Hispanic and Asian population (Chen, 2006).

Poor health contributes to decreased achievement at school, greater absenteeism from school, and greater likelihood of dropping out of school early. High school dropouts are more likely to abuse drugs and alcohol, have unplanned pregnancies, and have more mental health issues. These complications carry on into adulthood as those with chronic health problems and lower educational attainment have lower earning potential, limited employment opportunities, and lack of health insurance coverage.

Chronic health problems impact a person's ability to maintain employment due to multiple absences related to illness (Case & Paxton, 2006; Pettit & Nienhaus, 2010).

Educational attainment is associated with elimination of health risks. Students with a high school diploma or GED are more likely to engage in healthier lifestyle choices. Obesity rates were less among graduates than those who dropped out of high school. Students who drop out of high school limit their opportunities for physical education, athletics, activities at student recreation facilities, and other physical activities. Dietary practices were also influenced by educational attainment. Women with higher levels of education were found to eat the recommended amount of fruits and vegetables whereas those with lower educational attainment were eating foods high in fat and sugar. Income also affects whether a person can purchase healthy food choices (Pettit & Nienhaus, 2010).

Vision Disparities

About 1 in 5 American children has a vision problem. Children in poverty, experience more than twice the normal rate of vision problems. Premature birth and low birth weight are two possible reasons for this increase (Basch, 2011). Vision problems compromise the academic potential of students. Poor vision is associated with reading errors, spelling errors, and impaired literacy skills. The American Optometric Association indicates that a child's ability to perform well in school is linked to seeing well in the classroom at far and near distances. Since a large majority of learning occurs through the visual senses, it is assumed that a student who is unable to see will struggle academically (Ethan & Basch, 2008; Basch, 2011). In a study by Maples (2001), vision

skills were more predictive of performance on a standardized test than race and socioeconomic status.

Many youth in poverty are at risk for under-diagnosis, under-treatment, and an unmet need for vision services (Basch, 2011). As the number of vision problems rise for those in poverty, there remains a concern as to why there is low compliance with follow-up care and treatment among the poor. Several barriers to follow-up and treatment cited by low-income families were cost, no insurance coverage, problems scheduling appointments, difficulty getting to the appointments, the belief that vision problems are not the priority or that the screening results are inaccurate, and their child's refusal to wear eyeglasses (Kimel, 2006; Mark & Mark, 1999).

In an effort to eliminate the health disparity of vision problems among the poor, the U.S. Department of Health and Human Services' *Healthy People* initiative seeks to reduce visual impairment related to refractive errors, reduce blindness and visual impairment in children under 18 years old, and increase the amount of preschool children who receive vision screening. Several states have enacted legislation to require all children receive a comprehensive eye exam before entering elementary school. In 2006, Rhode Island, Oklahoma, and North Carolina enacted legislation that required students who failed the vision exam to follow-up with an optometrist or ophthalmologist before entering school (Ethan & Basch, 2008). School-based vision screening programs are also a useful way of identifying students with vision problems. Although the programs identify vision problems, there is no evidence as to whether appropriate follow-up and treatment are achieved (Basch, 2011).

Dental Disparities

The effects of poor dental health extend far beyond the mouth. Oral diseases "can lead to systemic diseases, emergency visits, hospital stays, medications, [and] even death" (Mulligan, Seirawan, Faust, & Barzaga, 2011, p. 648). The U.S. General Accounting Office (GAO) prepared a report entitled *Oral Health: Dental Disease is a Chronic Problem among Low-Income Populations* to address the continued concern that the low-income population has a higher burden of dental disease. The GAO reported that children living in families with incomes <$20,000 had "nearly 12 times more restricted-activity days (e.g. missing school) because of dental problems compared with children living in families with incomes of ≥ $20,000" (Dye & Thornton-Evans, 2010, p. 818).

Dye and Thornton-Evans (2010) compared the two National Health and Nutrition Examination Surveys (NHANES) from 1988-1994 and 1999-2004 to monitor changes in oral health. The investigators found that children aged 2-4 years old experienced an increase in caries experience. The increase was observed for all boys and for non-Hispanic white children but not for girls or non-Hispanic black or Mexican American children. Surprisingly, only non-poor children experience a significant increase in caries in this age group when compared to poor and near-poor children. This may be associated with an increase in soda and juice consumption. Important to note is the narrowing of oral health disparities between the poor and non-poor. This may be attributed to the increased use of dental sealants among poor children through public dental sealant programs and community health centers' oral health programs (Dye & Thornton-Evans, 2010).

Mulligan et al. (2011) conducted a study to investigate the occurrence of dental caries among the poor, migrant, and minority children in Los Angeles County. The study found that 44% of children had untreated caries while 29% showed the early stages of dental caries. Seventy two percent of children still needed early dental care, and 9% needed urgent care. In the 6-8 year olds, 13% had more urgent needs than younger or older children. Risk factors associated with increased dental needs included "birth abroad, toothache in the last six months, needed but inaccessible dental care within the last year, and no dental insurance" (p. 652). Children of parents who lacked high schools diplomas or where English was not spoken in the home were 1.2 and 1.1 times more likely to have untreated dental caries than children where one parent had a high school diploma or lived in a home where English was spoken but wasn't the primary language. Children who experienced toothache or had difficulty accessing dental care were 3-4 times more likely to need urgent dental care. This study found that dental caries, among poor children in Los Angeles, were double that of the national estimates. The Dental Health Foundation (DHF) found untreated tooth decay in 33% of children who were eligible for free and reduced lunch programs, compared to 22% of children who were not eligible. The study confirmed "that the odds of having untreated dental caries and urgent dental needs were 1.4 and 2.5 times higher respectively among poor children than among other children" (Mulligan, 2011, p. 657).

People of low income have a consistent history of underutilizing dental services, even when services are free. Muirhead, Levine, Nicolau, Landry and Bedose (2013) investigated the decision-making influences of low-income families in accessing dental services. Parents' decisions were influenced by their own lay diagnosis, which was

derived from visually inspecting their child's teeth for problems. Most parents were able

to recognize cavities and interpret intermittent versus chronic pain. These skills were

developed from their life experiences and dental care experiences in the past. Having

experienced many of these same problems, parents felt competent in diagnosing and

managing their child's dental health. The decision to take their child to the dentist was

based on their lay diagnosis and was influenced by whether or not their child was

experiencing pain. Reasons for not seeking dental care included no obvious

identification of problems, no expression of pain, if their child was afraid of dental

treatment, and if the affected tooth was deciduous and would eventually fall out. Some

parents waited and watched their children instead of following a recommendation to

follow-up with a dentist. The investigators determined that parents in poverty were not

neglectful of their child's oral health, but preferred to manage their child's oral health

without professionals. This is linked to being resourceful given their life circumstances

(Muirhead et al, 2013).

Cognitive Ability and School Achievement

Often times poor health outcomes translate into low cognitive outcomes. Students

with unresolved health issues aren't able to focus on their education. Other external

factors, such as family, neighborhood, and community influence academic outcomes for

children. There are many studies that document the decreased academic performance of

children in poverty. Over the past ten years, 4th and 8th graders attending high-poverty

schools consistently scored lower in reading, math, visual arts, and music than children in

low-poverty schools (Olivares-Cuhat, 2011; NAEP 2012). Learning disabilities and

developmental delays are more common among the poor (Case & Paxton, 2006; Fleming,

Cook, & Stone, 2002; Vanderberg & Emery, 2009).

The number of high-poverty schools is on the rise. In 2007-2008, approximately

40 % of elementary city schools and 20% of secondary city schools were considered

high-poverty schools (Aud et al., 2010).   There are many factors associated with low

family income that impact the educational outcomes of children. These factors include

poor health, single-parent family structures, limited access to high-quality preschools,

decreased participation is summer or after-school activities, and frequent moves in and

out of schools due to unstable housing arrangements (Phillips, 2011; Raudenbush, Jean &

Art, 2011; Ladd, 2012).

All children bring some level of foundational knowledge to school. The family's

income status, the child's early home and preschool experiences, and a child's cognitive

abilities influence the level of this knowledge. Research continues to show a large gap

between achievement in low SES and high SES. Children who attend Head Start

programs perform worse on mathematic achievement tests than those in middle-income

preschools. This is thought to be associated with less support for mathematics in their

home environment. Public preschools serving low SES children also provide fewer

learning opportunities for math development than those serving middle-income families

(Jordan & Levine, 2009).

The achievement gap between students of low income families and high income

families is significant. Homeless children have "significantly lower reading and math

scores, 25-40% have had to repeat at least one grade, 32% have been expelled from

school, and only about 25% will graduate from high school" (Price, McKinney, & Braun, 2010, p. 6). Children from low SES families perform substantially worse in mathematics than those from higher SES. Poor mathematic achievement can influence career choice in the areas of science, technology, engineering, and mathematics. With the increased use of technology, math is becoming a more essential skill for all children (Jordan & Levine, 2009). Barbaresi, Katusic, Colligan, Weaver, and Jacobsen (2005) found that more than half of children with mathematic difficulties also struggle with reading and language problems. Children from low SES are at a particular risk for persistent math problems when they have reading and math difficulties.

Sean Reardon (2011) examined the achievement gaps of school-aged children from high and low-income families over a period of 55 years. He states that families with higher incomes tend to have parents who are highly educated, are able to provide resources and opportunities to develop their child's cognitive and academic skills, and are able to provide access to preschools and higher education (Reardon, 2012). They are also likely to invest in tutoring, after-school programs, camps, and traveling (Ladd, 2012). These advantages may be an explanation for why students who are from high-income families tend to perform better in school.

The quality of a school and the teachers also has a large impact on academic achievement. Middle and upper-class families tend to know how to work the education system in their favor by assuring their children are in the best schools with the best teachers (Ladd, 2012). The quality of a school is difficult to determine, but is "a direct output of the education system, where the system includes the managerial input of the state and local education policymakers, school-level inputs such as teachers and

principals, and educational resources such as technology, facilities, and instructional materials" (Ladd, 2012, p. 211). Quality can differ from school to school based on the quantity, quality, and effective use of these inputs (Ladd, 2012).

The *No Child Left Behind Act* (NCLB) holds all schools to the same standard, despite their populations' income, minority status, and Limited English Proficiency status. Essentially, schools are required to offset any disadvantages of the student in order to improve educational outcomes (Ladd, 2011). NCLB has not been successful in raising student test scores anywhere near the desired amount, especially for students of poverty (Dee & Jacobs, 2011).

Under NCLB, teachers are evaluated based on student test scores. Teachers whose students are not meeting the standard often experience a low morale despite their efforts to educate these children (Ladd, 2012). High-quality teachers are less likely to teach in schools with a high number of disadvantaged students (Clotfelter, Ladd, & Vigor, 2011; Jackson, 2009). This confounds the problem since students whose teachers hold a master's degree continue to achieve higher student reading and math scores than those whose teachers hold a bachelor's degree (NAEP, 2011). Schools with a high number of minority students tend to employ more beginning teachers with a bachelor's degree. These teachers have higher absence and turnover rates, poor working conditions, inadequate facilities and supplies, larger class sizes, and decreased administrative support (Price, McKinney, & Braun, 2011).

Students from poverty are referred for special education services more frequently due to their increased academic achievement gap and behavioral problems. Learning disability is determined by a discrepancy in a child's potential ability (IQ) and academic achievement. The amount of children receiving special education services for learning disabilities has more than doubled over the last 20 years. With special education costs being 2.3 times more than general education costs, this growth is placing a strain on the public school system's finances. Blair and Scott (2002) studied the proportion of special education placements for learning disability in children aged 12- 14. They utilized a linked birth record with school database records to estimate the extent to which low SES factors at birth were associated with special education placements for students with LD. These SES factors included low birth weight, race, gender, maternal education, maternal age, prenatal care, and marital status. The researchers found the highest risk factors for development of learning disabilities to be male gender (2.5 times more likely than females) and maternal education less than 12 years (1.5 times more likely than those with education >12 years). A combination of the risk factors also significantly increased the likelihood of placement for learning disabilities. Low SES was attributable to 30% of LD placements for boys and 39% for girls. This accounts for one third of all placements for a learning disability. Although there is an association between SES and LD, the researchers cannot state that low SES causes learning disabilities. There can be other influencing factors. The researchers also state that students with low achievement may be identified as learning disabled when there is no discrepancy between IQ and achievement. Low achievers are different from those with LD as they have a low IQ and low achievement. For this reason, the number of students identified as LD may also be

misrepresented with a high number of students who would be classified as low achievement (Blair & Scott, 2002).

Emotional and Behavioral Health

Children from low income families may present with poor mental health and depression. This is typically associated with problems at home, such as domestic abuse, divorce, alcohol and drug abuse, work-related stress, and parents with poor physical health (Case & Paxton, 2006; Ladd, 2012; Price, McKinney, & Braun, 2011). Children also experience weakened family structures, higher mobility, and higher crime rates associated with low-income neighborhoods (Evans, 2004). Parents are less likely to be nurturing and do not engage in helping their child succeed in school. In addition to poor parenting, children are exposed to poor role models in their communities. Inconsistencies in parenting may also lead to behavior problems at school (Bavin, 2002).

A child who is homeless has a greater chance of engaging in aggressive or delinquent behaviors. They have increased anxiety due to fear of harm to themselves or family members (Price, McKinney, & Braun, 2011). Some children are able to get assistance for mental health issues, but many are left to suffer in silence (Ladd, 2012). Fleming (2011) found that social-emotional visits to the school nurse varied among race and poverty status. Approximately one third of poor Whites and Hispanics made health office visits for social-emotional reasons as compared to one fifth of Blacks and 1 in 10 Asians. Lack of social-emotional visits for Blacks and Asians may be associated with cultural traditions in disguising mental health concerns and presenting with somatic complaints instead of an emotional concern.

Adverse outcomes of poverty include externalizing and internalizing problems, low academic performance, and psychiatric morbidity. Students with behavior problems are not well accepted by peers or teachers. This affects self-esteem and progress in the academic setting (Bigelow, 2006). Abuse and neglect are also associated with mood disorders, conduct disorders, ADHD, and learning problems.

The Role of the School Nurse in Assisting Students in Poverty

The National Association of School Nurses (NASN) defines the role of a school nurse as follows:

> The registered professional school nurse is the leader in the school community to oversee school health policies and programs. The school nurse serves in a pivotal role to provide expertise and oversight for the provision of school health services and promotion of health education. Using clinical knowledge and judgment, the school nurse provides health care to students and staff, performs health screenings, and coordinates referrals to the medical home or private healthcare provider. The school nurse serves as a liaison between school personnel, family, community and healthcare providers to advocate for health care and a healthy school environment (2011a).

The school nurse utilizes the nursing process for assessment, planning and implementation of interventions, and evaluation of care. The nurse also provides case management, health promotion, safety, quality health care for actual and potential health problems, and coordination of health services (NASN, 2011a).

School nurses submitted recommendations for the *Healthy People 2020* initiative to emphasize the importance of school nursing. One important recommendation was having a full-time registered nurse-to-student ratio of at least 1:750 for healthy students. The ratio changes to 1:225 for school populations that require daily school nursing services such as special education services and drops to 1:125 in populations with

complex health needs (NASN, 2010; NASN, 2011b). The average school nurse services

1151 students in 2.2 schools. As of August 2011, 34 states did not meet the minimum

requirement for students to have adequate access to a school nurse (Rollins, 2011).

Twenty-five percent of U.S. children have no access to a registered nurse at all (NASN,

2010). NASN indicates that the lack of school nurses is not due to a shortage of nurses,

but a shortage of funding for school nurse positions. School nurses are funded by local

school district budgets; state budgets; Title 1; Early and Periodic Screening, Diagnostic,

and Treatment (EPSDT); Medicaid; and community sponsors (NASN, 2011b). Adequate

staffing is necessary for improving child health and academic outcomes (American

Academy of Pediatrics, 2008).

The need for health care in schools has increased over the past decade. New onset

diabetes has almost doubled, while food allergies, anaphylaxis, and children in special

education with health conditions have doubled (NASN, 2010). As NICU survival rates

increase, the number of children with health problems continues to rise. Those who

survive often present with learning disabilities, vision problems, and neuro-

developmental problems (NASN, 2010; Sullivan & McGrath, 2003).

Baisch, Lundeen, and Murphy (2011) examined school staff satisfaction with the

nurse at their school and their perceptions of the impact the nurse has on efficient

management of student health concerns. The results indicated that teachers, principals,

and staff were very satisfied having a nurse in their school. Staff spent a combined 13

hours per day handling student health concerns prior to having a school nurse. A cost

analysis of the total annual savings in staff time per school, based on changes in time

spent dealing with health concerns when a nurse is present, was estimated to be over

$133,000. This is significantly lower than the average nurse salary. Staff also mentioned

their ability to focus on student learning when a school nurse was able to manage the

health needs of the student. In addition to managing the student health needs, nurses

maintained emergency medical records and disseminated important health plans to staff.

Student attendance rates significantly improved with better management of health

problems.

Guttu, Keehner Engelke, and Swanson (2004) examined school nurse-to-student

ratios, the services provided in school, and the health outcomes. They discovered that

school nurses were able to identify more students with chronic health conditions, were

better suited to assist students in management of these conditions, identified and treated

more accidents and injuries, counseled students about physical and psychological health

issues, and provided more follow-up for identified health issues. As the number of

students with chronic health conditions increases, it is important for school nurses to

locate these students on their campuses. Nurses with lower student ratios were able to

better identify these students and plan for their health needs.

Fleming (2011) completed a cross-sectional descriptive study to determine if there

was a pattern of student visits to the school nurse according to poverty, race, and

ethnicity. The results indicate that poverty and race are strong predictors of increased

student visits to the school nurse. In particular, poor White, Black, Asian, and Hispanic

students were almost twice as likely as their non-poor peers to visit the nurse for physical

health complaints and injuries. Social-emotional visits, visits requiring nursing

treatment, and health screenings were also increased in the poor. Bavin (2002) studied

the frequency of health office visits in Title 1 schools and non-Title 1 schools in

California. She found a statistically significant difference in the amount of visits at Title 1 schools as compared to non-Title 1 schools. She concluded that the increased health office visits at Title 1 schools indicated a need for more health care services available at school and better access to community resources (Bavin, 2002).

CHAPTER 4

METHODOLOGY

Research Design

This non-experimental, correlational cross-sectional study was developed to identify if there was a higher demand for nursing services in Title 1 schools than non-Title 1 schools. A correlation design is used to examine the relationships between variables. A correlation is an interrelationship between the independent variable and the dependent variable, so the variation in one variable tends to be related to variation in the other (Polit & Tatano Beck, 2008). The design was selected because the researcher was looking at the effect of Title 1 school status (independent variable) on the number of special education physical assessments, referrals, and the need to access community resources (dependent variables). The between-subjects design was utilized to compare Title 1 schools and non-Title 1 schools.

Population and Sample

The Clark County School District (CCSD) employs 185 school nurses to service the 217 elementary schools, 60 middle schools, and 57 high schools (CCSD, 2012). Full-time nurses employed with Clark County School District (CCSD) often have two to three school assignments. Nurses may have Title 1 schools, non-Title 1 schools, or a combination of the two. Some nurses have a special school, which is comprised of students whose entire population receives special education services.

The target population for this study consisted of registered nurses (RNs) who work in Title 1 and non-Title 1 schools. Non-probability sampling using a convenience sample was used. The accessible population was 185 school nurses employed by the CCSD in Nevada. Inclusion criteria for the participants were: (a) a RN in the State of Nevada; (b) a full-time or part-time school employment status; (c) currently employed by the Clark County School District in Nevada; (d) currently working in Title 1 or non-Title 1 school(s); (e) able to access the CCSD email and Internet for survey completion.

Measurement Methods

There were no current measurement tools that fit the requirements for this research study. The researcher developed an online survey based on the areas being studied (Appendix C). Demographic data for each school included student enrollment, whether the school was a special school, and Title 1 status. Nurses were asked to estimate the average number of special education physical assessments completed, average number of referrals issued, and average number of resources accessed in a month. Content validity was ascertained by asking two experienced school nurses and four experienced research committee members to critique the survey. Modifications were made based on their recommendations.

 Data Collection Methods and Procedure

After receiving exempt status from the University of Nevada, Las Vegas Office for the Protection of Research Subjects Institutional Review Board (IRB) (Appendix A) and Clark County School District Assessment, Accountability, Research, and School

Improvement Department (Appendix B), the researcher collected data from the nurses of CCSD. Data collection occurred over a two week period.

All CCSD school nurses were invited to participate via the CCSD email system. The initial email invitation provided an introduction, information on the research study, and a link to the online survey. A follow-up email was sent one week later reminding nurses that the survey would be closing in a few days. The data collection methods consisted of a self-report survey tool administered via electronic format through Survey Monkey (Stratford, 2013). Informed consent was obtained by having the document as the first part of the survey with participants unable to proceed until they give consent. The researcher did not collect the school names or any identifying information about the participants. All information was unidentifiable and could not be linked to any of the participants. Participation was strictly voluntary, and respondents were given the opportunity to opt out at any time.

Upon closure of the survey, the data from SurveyMonkey was downloaded into a Microsoft Excel file (Microsoft Corporation, 2007). A total of 99 respondents completed the survey, yielding a response rate of 54%. The data was reviewed and then was uploaded into IBM SPSS 19.0 for Windows (IBM, 2010). Thirty of the respondents stated they had a special school assignment. Data for school nurses working in special schools was excluded from this study due to the complex physical and behavioral needs of the students and entire student population receiving special education services. Data from a total of 166 Title 1 and non-Title 1 schools were available for analysis.

Data Screening and Assumption Testing

The dataset was screened for accuracy using univariate descriptive statistics. Data screening and assumption testing procedures proceeded by splitting the file by group (Title 1 and non-Title 1) and conducting these procedures for each group separately for each of the variables under consideration (special education physical assessment referrals; vision, hearing, dental, and medical referrals; and referral requiring access to community resources). This method is more accurate as data screening and assumption testing for the entire sample is meaningless when conducting between-subjects analyses. Data screening was done by requesting box plots by group and by reviewing Malahanobis Distance results for the linear combination of dependent variables. Deletion of outliers from the dataset is preferred over transformation because transforming the variables in an attempt to normalize data complicates interpretation because the data is no longer in its original scale (Tabachnick & Fidell, 2007); this is especially true if multiple approaches are used in transforming the data. However, deletion of outliers may not be possible in situations in which deleting the outliers would lead to a severe loss of power—that is, datasets with smaller numbers of cases.

For the present study, data screening detected outliers at the univariate level, with 7 cases outside of the range in the box plots. However, because of the descriptive nature of the study, and because removal of the outliers would bias the results by restricting the range and inflating or deflating group means, these cases were retained rather than removed. Furthermore, the data met the requisite assumptions, including homogeneity of error variance (all p-values were $> .05$ for *Levene's Test*) for each of the outcome variables by group, and the homogeneity of variance-covariances matrices. Two of the

schools did not provide enrollment information, and hence, were omitted from the analysis. Therefore, data analysis proceeded as planned with the 166 cases.

Data Preparation and Analysis

Prior to data analysis, the three outcome variables — special education physical assessment referrals; vision, hearing, dental, and medical referrals; and referrals requiring access to community resources —were statistically transformed to represent ratios rather than raw values, taking into account the student enrollment total in each school. Thus, the values of the outcome variables represent a ratio per 1,000 students.

In order to ascertain whether nurses in Title I schools reported significantly higher referral ratios across the three outcome variables than non-Title I schools, the data were submitted to a one-way multivariate analysis of variance (MANOVA).   School type (Title I, non-Title I) served as the between-subjects factor and type of referral (special education physical assessment referrals; vision, hearing, dental, and medical referrals; and referrals requiring access to community resources) served as the dependent variables. The Bonferroni adjustment for the inflation of Type I error rate was employed when interpreting the univariate results to prevent capitalizing on chance variation, which can occur when conducting multiple analyses on the same data. The more conservative *p*-value for the univariate results was .05/3 = .016.

Cohen (1988) suggests that for effect size (η^2) the following guidelines be used for interpreting the practical significance of results: .01 to .05 (modest); .06 to .13 (moderate); and $\geq$ .14 (strong). With respect to the measure of association among variables, correlation coefficients < .20 are considered very weak; .30 to .39 are considered weak; .40 to .59 are considered moderate; and $\geq$ .70 are considered strong.

Negative coefficients represent inverse associations—as the value of one variable

increases, the value of the other decreases — and positive coefficients indicate that as the

value of one variable increases, the value of the other variable increases as well.

CHAPTER 5

FINDINGS OF THE STUDY

Demographics of the Study Sample

Ninety-nine school nurses participated in the online survey, a response rate of

54%. The majority of nurses (*n*=79) had two school assignments, while only 10 nurses

had just one school assignment; another 10 had three school assignments. Of the schools

represented, 93 were Title 1 schools, 75 were non-Title 1 schools, and 30 were reported

as special schools. One Title 1 school and one non-Title 1 school were withdrawn from

the study due to missing data, leaving 92 Title 1 schools and 74 non-Title 1 schools for

analysis. As mentioned previously, data regarding special schools was excluded.

Descriptive Statistics and Correlations

Descriptive statistics for all outcome measures and total student enrollment are

reported by group in Table 1. Zero-order correlations are reported for the Title I schools

and the non-Title I schools for the three referral types and the ratio of student enrollment

per school in Table 2.

Table 1
Descriptive Statistics of Referral Type and Total Enrollment by School Type

Variable	Title I[a]		Non-Title I[b]	
	M	*SD*	*M*	*SD*
Physical Assessments[c]	12.36	7.84	9.42	6.07
Vision, Hearing, Dental, and Medical[c]	14.72	14.38	8.18	7.60
Community[c]	10.38	10.99	3.96	4.00
Enrollment[d]	946.74	605.08	989.23	612.49

Note. [a] *n*=92; [b] *n*=74. Standard deviations are high due to the inclusion of the seven outliers in the sample.
[c] Means represent ratio per 1,000 students
[d] Means represent raw student enrollment total

Table 2
Zero-Order Correlations by School Type for Referral Type and Enrollment Ratio

Variable	1	2	3	4
1. Physical Assessments	-	.67**	.47**	-.28**
2. Vision, Hearing, Dental, and Medical Referrals	.54**	-	.69**	-.23*
3. Community Referrals	.50**	.74**	-	-.24**
4. Enrollment Ratio	-.43**	-.34**	-.28**	-

Note. Correlations above the diagonal are for the non-Title I schools[a] and those below the diagonal are for the Title I schools[b].
[a] *n*=74; [b] *n*=93
**$p<.01$ (one-tailed) * $p < .05$ (one-tailed)

Primary Analyses of the Present Study

Results of the one-way MANOVA found a significant multivariate effect of school type on the linear combination of referral type, $F_{(3,162)} = 7.57$, $p < 0.001$, $\eta^2 = 0.12$. Significant univariate results by each individual referral type dependent variable were interpreted next. Results were statistically significant for physical assessment referrals, $F_{(1,165)} = 7.00$, $p < 0.01$, $\eta^2 = 0.06$; vision, hearing, dental, and medical referrals, $F_{(1,165)} = 12.46$, $p < 0.001$, $\eta^2 = 0.10$; and referrals requiring community resources, $F_{(1,165)} = 22.80$, $p < 0.001$, $\eta^2 = 0.12$. Evidently, all effect sizes (η^2), which represent the magnitude of each effect, range from moderate to approaching large. Review of the means reported in Table 1 suggests that for all three referral types, Title I schools reported significantly greater referrals per 1,000 students than non-Title I schools, especially with respect to referrals requiring community resources and vision, hearing, dental, and medical referrals. Figure 1 presents the ratio of referral types for Title I and non-Title I schools. Figure 2 contains the enrollment average by school type.

As an ad hoc analysis, the ratio of nurses-to-students was also calculated. The ratio of nurses-to-students in the school district in which this study took place was 1:1,758. This is significantly higher than NASN's recommendation of 1 nurse for every 750 regular education students (NASN, 2010).
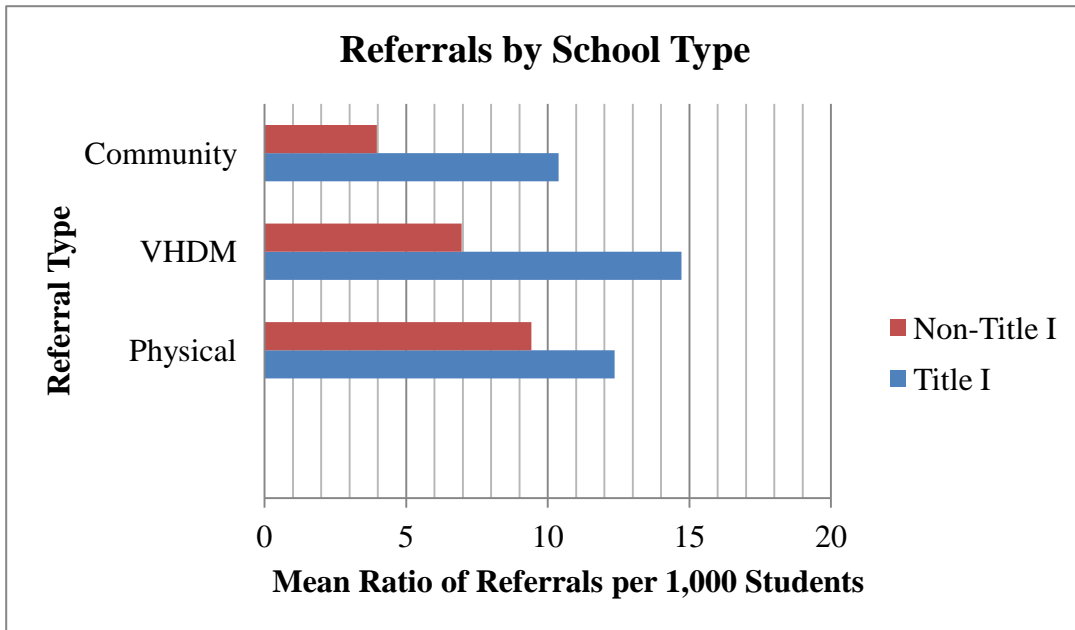
Figure 1. Average ratio of referrals by school type. VHDM = Vision, Hearing, Dental, and Medical referrals.
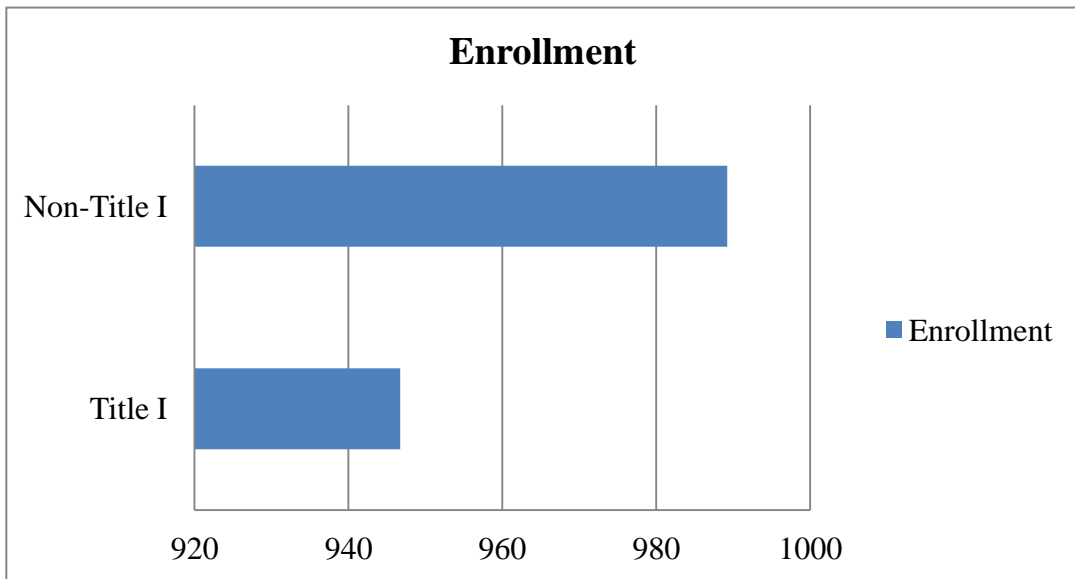

Figure 2. Average student enrollment between Title I and non-Title I schools.

CHAPTER 6

CONCLUSIONS AND IMPLICATIONS

Limitations of the Study

One limitation of this study is the use of a survey instrument designed by the researcher. Since the tool has not been tested prior to this study, its reliability is unknown. Reliability is directly related to a measure's "stability, consistency, and dependability" (Polit & Tatano Beck, 2008). Another concern is that the nurses were asked to estimate their responses instead of pulling from actual school data. This could cause an over-representation or under-representation of actual figures. The software program CCSD uses is not configured in a way that allows data extraction to answer the research questions with actual data.

Conclusions

The survey results support prior research findings that there are more health disparities and academic difficulties among the poor. Findings suggest that students in low-income families require more special education services as reflected in the increased number of special education health assessments completed at Title 1 schools as compared to non-Title 1 schools. A higher special education rate among low-income students reinforces the need for early intervention and increased academic support.

Findings also suggest that students in low-income families have higher associated health needs and lack resources needed to properly meet those health needs. This is evident in the increased number of vision, hearing, dental and medical referrals in Title 1

schools. Assisting families in accessing community resources is also significantly higher

in Title 1 schools which is consistent with difficulty accessing appropriate health care

services due to lack of insurance or inability to pay.

According to Orem's Theory of Self-Care Deficit, nurses must intervene to help

individuals change conditions within themselves in order to maintain a state of health. In

the case of children, nurses must assist families in meeting the student's self-care needs.

Through education, collaboration, and appropriate assistance, school nurses can help

minimize the health disparities among those in poverty (Marriner Tomey, & Alligood,

2002).

Recommendations

Children tend to model their parents' behavior which makes breaking the cycle of

poor health difficult. Health promotion activities must be targeted at the poor; otherwise

health disparities will continue to grow in this population (Pettit & Nienhaus, 2010).

Schools are powerful resources for disseminating health education, health promotion

activities, and early behavioral interventions. Some examples include exercise programs,

healthy eating, teen pregnancy prevention, drug abuse programs, and counseling

programs. "Youth who practice health-promoting behaviors are more likely to earn good

grades, graduate from high school, and pursue educational attainment opportunities after

high school" (Pettit & Nienhaus, 2010, p. 51).   They are also less likely to withdraw

from school. Incorporating health education and promotion into the educational system

allows students to gain knowledge and skills to support healthy behavior change.

Children attending Title 1 schools need more access to health care resources. Unless schools collaborate with outside resources and professionals, care for these children will be limited. More Title 1 funding may need to be allocated toward health programs within schools. Since lack of parental follow-up and lack of transportation is a genuine concern, it is essential that these resources be brought to the schools or coordinated from the schools. Bringing dentists, doctors, and behavioral counselors into the schools may minimize the disparities among the poor.

The American Academy of Pediatrics, the American School Health Association, and the National Association of School Nurses recommend one school nurse per school (Baisch, Lundeen, & Murphy, 2011). The school nurse-to-student ratio will likely not improve unless legislation mandates this initiative and funds are set aside for school nurse positions. Interaction with policymakers concerned with health initiatives may increase the likelihood of this legislation taking priority. Additional funding to support the increase in school nurse positions may be accessed through Title 1 and special education funding, federal programs such as Medicaid and Child Health Insurance Program (CHIP), third-party or private payers, community partnerships, and grants (Maughan, 2009).

Many states have enacted legislation mandating health examinations and vaccine verification prior to enrolling in school. A few states have included mandatory vision and hearing screening with appropriate follow-up prior to attending school (NASBE, n.d.). Enacting this legislation in Nevada would ensure that students are seen by another medical provider prior to attending school and that vaccinations are current. Vision and hearing screening prior to attending school ensures that students are ready to learn at the

start of their educational experience. With this legislation in place, nurses will be able to focus more of their time on the recognition of health problems, health promotion activities, and follow-up.

Future research should focus on using actual data from Title 1 and non-Title 1 schools to ascertain more accurate results. Despite the limitations, the findings of this study support that nursing service demand is higher among low-income students. This higher demand should be a call to action for schools to take a proactive approach in assisting these students.

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UNIVERSITY OF NEVADA LAS VEGAS

Biomedical IRB – Exempt Review
Deemed Exempt

DATE: January 25, 2013

TO: **Dr. Nancy Menzel,** Nursing

FROM: Office of Research Integrity – Human Subjects

RE: Notification of IRB Action
                 Protocol Title: Nursing Service Demand in Title I Schools
                 Protocol # 1301-4340
_____

This memorandum is notification that the project referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46 and deemed exempt under 45 CFR 46.101(b)2.

PLEASE NOTE:
Upon Approval, the research team is responsible for conducting the research as stated in the exempt application reviewed by the ORI – HS and/or the IRB which shall include using the most recently submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials. The official versions of these forms are indicated by footer which contains the date exempted.

Any changes to the application may cause this project to require a different level of IRB review. Should any changes need to be made, please submit a **Modification Form**. When the above-referenced project has been completed, please submit a **Continuing Review/Progress Completion report** to notify ORI – HS of its closure.

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 895-2794.

Appendix B

Clark County School District Research Approval

March 7, 2013

Karen Stratford, RN
118 Cricklewood Ave.
Henderson, NV 89002

Dear Karen:

The Research Review Committee of the Clark County School District has reviewed your request entitled: *Nursing Service Demand in Title 1 Schools*. The committee is pleased to inform you that your proposal has been approved with the following provisos:

1. Participation is strictly and solely on a voluntary basis,
2. Provide letter of acceptance from principals who agree to be involved with the study.

This research protocol is approved for a period of one year from the approval date. The expiration of this protocol is March 5, 2014. If the use of human subjects described in the referenced protocol will continue beyond the expiration date, you must provide a letter requesting an extension *one month* prior to the expiration date. The letter must indicate whether there will be any modifications to the original protocol. If there is any change to the protocol it will be necessary to request additional approval for such change(s) in writing through the Research Review Committee.

Please provide a copy of your research findings to this office upon completion. We look forward to the results. If you have any questions or require assistance please do not hesitate to contact Brett Campbell at 799-5195 or e-mail at bdcampbell@interact.ccsd.net.

Sincerely,

Jeffrey N. Halsell, Ed.D.
Coordinator IV
Assessment & Accountability Department
Chair, Research Review Committee

clk
c: Brett Campbell
    Pat Skorkowsky
    Research Review Committee   RRC-051-2013

INFORMED CONSENT AND ONLINE SURVEY

INFORMED CONSENT

Department of Nursing

TITLE OF STUDY: Nursing Service Demand in Title 1 Schools

INVESTIGATOR(S): 1. Karen Stratford, RN and 2. Nancy Menzel, PhD, RN

CONTACT PHONE NUMBER: 1. 702-375-3363 and 2. 702-895-5970

Purpose of the Study
You are invited to participate in a research study. The purpose of this study is to examine the frequency of special education physical assessments, referrals, and access to community resources in Title 1 schools and non-Title 1 schools.

Participants
You are being asked to participate in the study because you are a Registered Nurse employed by the Clark County School District.

Procedures
If you volunteer to participate in this study, you will be asked to do the following:
You will complete a survey, which should take 5-10 minutes. You will be asked to answer the questions for each of your assigned schools. If you do not have a second or third school, you can choose N/A for school #2 and/or #3. You will need to provide the current student enrollment for each school, whether the school is Title 1 or non-Title 1, and respond as to whether you have a special school.

Benefits of Participation
There may be a direct benefit to you as a participant in this study. You will be contributing to the knowledge of nursing service demand in Title 1 and non-Title 1 schools. Data will be analyzed to determine whether there is a significant difference between the two types of schools and presented to supervisors who make staffing assignments.

Risks of Participation
There are risks involved in all research studies. Minimal risks or discomforts may occur from taking part in this study; such as feeling uncomfortable if unsure of an answer to the questions.

Cost /Compensation

There is no financial cost to you to participate in this study. The study will take 5-10 minutes of your time. You will not be compensated for your time.

Contact Information

If you have any questions or concerns about the study, you may contact Karen Stratford at stratfo4@unlv.nevada.edu or 702-375-3363 or nancy.menzel@unlv.edu**.** For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact **the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794 or via email at IRB@unlv.edu.**

Voluntary Participation

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality

All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for three years after completion of the study. After the storage time the information gathered will be destroyed.

Participant Consent:

By beginning this survey, you acknowledge that you have read the above information and agree to participate in this research study, knowing that you are free to withdraw your participation at any time without penalty.

Informed Consent

INFORMED CONSENT

Department of Nursing
TITLE OF STUDY: Nursing Service Demand in Title 1 Schools
INVESTIGATOR(S): 1. Karen Stratford, RN and 2. Nancy Menzel, PhD, RN
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Confidentiality
All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for three years after completion of the study. After the storage time the information gathered will be destroyed.

Participant Consent:
By beginning this survey, you acknowledge that you have read the above information and agree to participate in this research study, knowing that you are free to withdraw your participation at any time without penalty.

Please answer the following questions for your first school.

✱1. Is your first school a Title 1 School?

◯ Yes

◯ No

✱2. Is your first school a special school (self-contained school)?

◯ Yes

◯ No

✱3. What is the current student enrollment?

Number of students [_____]

✱4. On average, how many physical assessments (initials, re-evaluations, and annuals) do you complete monthly?

Number of assessments [_____]

✱5. On average, how many vision, hearing, dental, and medical referrals do you initiate a month (do not include referrals issued in mass screenings)?

Number of referrals [_____]

✱6. On average, how many of the monthly referrals require assistance accessing community resources; such as dental clinics, VSP coupons/vision services, school based health clinics, etc.?

Referrals requiring
assistance from the nurse [_____]

Please answer the following questions for your second school. If you do not have a second school, answer no to question #7 and proceed to question #14.

*7. Do you have a second school assignment?

◯ Yes

◯ No

8. Is your second school a Title 1 School?

◯ Yes

◯ No

9. Is your second school a special school (self-contained school)?

◯ Yes

◯ No

10. What is the current student enrollment?

Number of students [   ]

11. On average, how many physical assessments (initials, re-evaluations, and annuals) do you complete monthly?

Number of Assessments [   ]

12. On average, how many vision, hearing, dental, and medical referrals do you initiate a month (do not include referrals issued in mass screenings)?

Number of Referrals [   ]

13. On average, how many of the monthly referrals require assistance accessing community resources; such as dental clinics, VSP coupons/vision services, school based health clinics, etc.?

Referrals requiring
assistance from the nurse [   ]

Please answer the following questions for your third school. If you do not have a third school, answer question #14 only.

*14. Do you have a third school assignment?

◯ Yes

◯ No

15. Is your third school a Title 1 School?

◯ Yes

◯ No

16. Is your third school a special school (self-contained school)?

◯ Yes

◯ No

17. What is the current student enrollment?

Number of Students [   ]

18. On average, how many physical assessments (initials, re-evaluations, and annuals) do you complete monthly?

Number of Assessments [   ]

19. On average, how many vision, hearing, dental, and medical referrals do you initiate a month (do not include referrals issued in mass screenings)?

Number of Referrals [   ]

20. On average, how many of the monthly referrals require assistance accessing community resources; such as dental clinics, VSP coupons/vision services, school based health clinics, etc.?

Referrals requiring
assistance from the nurse [   ]

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VITA

Graduate College
University of Nevada, Las Vegas

Karen Stratford

Degrees:
      Associate of Science in Nursing, 1995
      Samford University

      Bachelor of Science in Nursing, 1997
      Samford University

Thesis Title:
      A Comparison of Nursing Service Demand in Title 1 Schools And Non-Title 1
      Schools

Thesis Examination Committee:

      Chairperson, Nancy Menzel, Ph. D.
      Committee Member, Lori Candela, Ph.D.
      Committee Member, Janelle Willis
      Graduate Faculty Representative, Chris Cochran, Ph. D.