Original Research

The Role of School Nurses, Challenges, and Reactions to Delegation Legislation: A Qualitative Approach

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Abstract

Passage of new laws, national standards regarding delegation, and the recommendation for at least one full-time nurse in every school have provided more visibility to the role of school nurses. Recent legislative amendments in Kentucky presented an opportunity to examine how the role of the school nurse is changing. Aims were to describe the (1) role of school nurses in Kentucky, (2) impact of school nurses, (3) challenges faced by school nurses, and (4) impact of budget cuts and legislation. Three focus groups were conducted. School nurses faced challenges of limited time and resources, communication barriers, and multiple documentation requirements. Nurses' greatest impacts were their availability, recognition of psychosocial problems and health concerns, and connection with resources. Nurses had not yet encountered many changes due to new legislation that expanded delegation of diabetes-related tasks to unlicensed school personnel, but some had concerns about possible negative effects while others expressed support.

Keywords

delegation/UAP, qualitative research, elementary, high school, middle/junior/high school, school nurse characteristics

Many studies demonstrated the vast and significant work of school nurses. In their 2015 review of the literature, Lineberry and Ickes noted that the roles of school nurses in America could be conceptualized into four main areas: (a) health promotion and disease prevention, (b) triage and treatment of acute issues (e.g., injuries and infectious diseases), (c) management of chronic conditions, and (d) psychosocial support.

School nurses promote health and prevent disease in many ways. They deliver education on a range of topics, including hygiene to prevent the spread of infection, healthy eating, and sexual health. This education is delivered in a variety of settings such as the classroom, assemblies, and health fairs (Hoekstra, Young, Eley, Hawking, & McNulty, 2016). School nurses also promote positive behavioral health through curricula in schools as well as serving as advocates, facilitators, and counselors of behavioral health services (National Association of School Nurses [NASN], 2017). They train teachers, bus drivers, and other school staff to prevent, recognize, and treat food allergy reactions (Wahl, Stephens, Ruffo, & Jones, 2015) and seizure awareness and response (Brook, Hiltz, Kopplin, & Lindeke, 2015). School nurses conduct screenings to prevent or detect problems with vision (Kemper, Helfrich, Talbot, & Patel, 2012) and obesity (Morrison-Sandberg, Kubik, & Johnson, 2011). School nurses also monitor and promote compliance with required student immunizations (Baisch, Lundeen, & Murphy, 2011; Luthy, Thorpe, Dymock, & Connely, 2011), which reduces the transmission of communicable diseases in schools. In essence, school nurses play a critical role in protecting, promoting, and improving the health of children in the school and are thus considered an integral component of the Centers for Disease Control and Prevention's (2014) Whole School, Whole Community, Whole Child (WSCC) framework. The framework acknowledges school nurses (school health services) as being a critical component in promoting positive health outcomes of youth, and as part of the overall school community, school nurses are expected to coordinate resources, collaborate with other stakeholders in the school and community, and communicate/prioritize the health needs of students.

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The availability of school nurses increases students' time in the classroom and parents' time at work (Lineberry & Ickes, 2015) since assessment and recommendation by a school nurse, as opposed to a teacher or school administrator, are more likely to result in the student being returned to the classroom rather being sent home (Pennington & Delaney, 2008). Beyond the triage and treatment of acute complaints, school nurses are instrumental in managing chronic conditions in students. Between 13% and 18% of children and adolescents have a chronic health condition (Cohen et al., 2011; VanCleave, Gortmaker, & Perrin, 2010) with 7.5% of children between the ages of 6 and 17 taking medicine for emotional or behavioral difficulties in 2011–2012 (Howie, Pastor, & Lukacs, 2014). Using a nationally representative sample, Miller, Coffield, Leroy, and Wallin (2016) found the highest prevalence in school children for asthma, followed by epilepsy, diabetes, food allergies, and hypertension. School nurses document students' conditions and treatments in their health records much more completely than do nonnursing school staff, providing for safer management of students' health conditions at school (Baisch et al., 2011). School nurses also provide psychosocial support and community referrals to students, investigating underlying emotional and poverty-related issues when objective measures do not coincide with students' physical complaints or when students are frequent visitors to the school nurse (Pavletic, 2011). Perpetrators and victims of bullying are often frequent visitors to the school nurse for somatic complaints, illness, and injury (Vernberg, Nelson, Fonagy, & Twemlow, 2011), and each visit presents an opportunity for identification and psychosocial intervention.

The multifaceted role of the school nurse exemplifies the WSCC model, which describes "the critical role of day-to-day practices and processes. . . . in sustaining a school environment that supports both health and learning" (Lewallen, Hunt, Potts-Datema, Zaza, & Giles, 2015, p. 730). In fact, although school nurses are most clearly related to the Health Services component of WSCC, their roles also intersect with other components of the model including, but not limited to, health education; counseling, psychological, and social services; social and emotional climate; and nutrition environment and services; and community involvement.

The literature describes many challenges faced by the school nurses in fulfilling these critical roles, including issues with students' and parents' understanding of health conditions; communication among parents, school personnel, and physicians; lack of resources (privacy, time, and administrative support), policy, and training; and high workloads (Morrison-Sandberg et al., 2011; Stalter, Chaudry, & Polivka, 2011). Despite these challenges, increased nursing activities are related to higher quality schools, increased attendance, and cost savings in U.S. elementary schools (Lineberry & Ickes, 2015).

Unfortunately, budget cuts in education are forcing boards of health and school administrators to reduce costs in schools (Leachman & Mai, 2014). Elimination of school nursing jobs or reduction of nursing hours has frequently been the response to budget cuts. In order to continue offering health services to students despite fewer school nurses, many states have passed laws and regulations that allow health services to be delivered by school personnel rather than a registered nurse through a process called delegation. The NASN (2015b) posits that the delegation of nursing tasks in schools can be valuable when review of the five rights of delegation deems that it is appropriate and in compliance with state nursing laws, regulations, and guidance. These five rights include the right task, under the right circumstances, to the right person, with the right directions and communication, and under the right supervision and evaluation (Mueller & Vogelsmeier, 2013). However, many states have passed laws and regulations regarding delegation that vary considerably, and sometimes policies within states contradict one another (Wilt & Foley, 2011). New legislation often demands changes in other policies and regulations, so that all are compatible. For example, until recently, students with diabetes in Kentucky either had to attend a school where a school nurse could check the student's blood glucose and administer insulin or an adult member of the student's family (or legal guardian) was required to come to the school to manage these issues. These two options did not fully meet the needs of students with diabetes within the child's usual school setting with as little disruption to the school and the child's routine as possible as mandated by federal law (American Diabetes Association, 2014). Therefore, in 2014, legislators amended Kentucky Revised Statute (KRS) 158.838 to require at least one employee on duty at all times at each school to administer insulin injections to students with diabetes (Kentucky Legislative Research Commission, 2014). Because not all schools in Kentucky have a full-time nurse, this amendment necessitated an extension of the services that could be delegated to unlicensed assistive personnel (UAP) to include the administration of insulin. Later in 2014, the Kentucky Board of Nursing [KBN] released an advisory opinion statement which promulgated that "following assessment of a client, a nurse. . . . may delegate components of the administration of medication regardless of route" including administration of insulin in school settings (p. 5). Similar issues are being addressed across the United States, including the challenges faced by school nurses regarding the impact of budget cuts, new legislation, and delegation of services.

Recent passage of new laws in Kentucky and other states, as well as recent national standards regarding delegation (NASN, 2015b) and the recommendation for at least one full-time nurse in every school (American Academy of Pediatrics [AAP], 2016), have brought more attention to the many duties performed by school nurses and the changing roles of school nurses. The recent amendment to KRS 158.838—although specific to the delegation of insulin administration to a student with diabetes—provided a

unique opportunity to study various aspects of the role of school nurses and the perceptions of school nurses about the general nature of delegation in schools. Therefore, the purpose of this qualitative study was to explore school nursing in one particular segment of the United States—the state of Kentucky. More specifically, the aims of this study were to elicit perceptions from school nurses that (1) define the role of school nurses in Kentucky, (2) describe the impact of school nurses on students, (3) explore challenges (including delegation) faced by school nurses, and (4) describe if and how school nursing had changed due to budget cuts and legislation since the amendment to KRS 158.838.

Method

A qualitative focus group design was employed. Because key data can normally be discovered within two to three focus groups (Guest, Namey, & McKenna, 2017), three focus groups specific to three purposively sampled regions of the state of Kentucky were utilized to reach saturation. The study was deemed exempt by the University of Kentucky's institutional review board.

Setting and Sample

In early September 2014, three focus groups with school nurses were conducted in three regions (Western, Central, and Southern) of Kentucky. Demographic characteristics of the three regions were as follows: Western had 91% White, 6% Black, and 3% Other, with a median age of 40.9 years and 12.4% of families below the poverty line; Central had 95% White, 2% Black, and 3% Other, with a median age of 39.1 years and 11.6% below the poverty line; Southern had 97% White, 2% Black, and 1% Other, with a median age of 40.4 years and 19.6% below the poverty line (Proximity One, 2017). The three regions of the state were identified and one specific school district within each of those regions was selected based on the principal investigator's (PI) knowledge that the school district had an active school health coordinator. The school health coordinator assisted the PI in inviting school nurses to participate in focus groups. The focus groups were held in private meeting rooms located at public health departments and an elementary school in the districts of the participating school nurses.

Because data were to be analyzed at a group rather than individual level, no demographic information for individual participants was collected. All participants were over 22 years of age (per study protocol), women, and currently employed as a school nurse. The number of participants for each focus group was 10 (40%, Central region), 7 (28%, Western region), and 8 (32%, Southern region), respectively, for a total of 25 school nurses.

Data Collection

The PI, who had previous training, conducted the focus groups. After describing the research and obtaining informed consent from participants, the PI used the following prompts, guided by the aims of the study, for the audio-recorded discussion:

- Tell me about your role as a school nurse.
- How have your duties changed due to budget cuts and legislation?
- What challenges do you face in your role as a school nurse?
- How do you impact students in your role as a school nurse?

Brief field notes of key points, follow-up questions, and nonverbal gestures were taken to capture important information and serve as a backup in case the audio recordings were unclear or damaged. Each focus group lasted approximately 1 hr. Focus group audio recordings were transcribed by the PI.

Data Analysis

Analysis of the focus group data for the four prompts utilized Dedoose (www.dedoose.com), an online data management/analysis program. Data files for $N = 3$ focus groups were uploaded as media files into Dedoose before they were analyzed. In order to describe themes, the PI and an assistant professor in health education who were both experienced in qualitative data analysis separately reviewed the transcripts in their entirety to familiarize themselves with the data. Each researcher independently identified themes and then they met to compare observations and decide on a final set of themes emerging from each of the four prompts. The two researchers then independently coded the data based on those themes (Braun & Clark, 2006).

Results

The findings are presented as thematic descriptions of responses to the four prompts along with illustrative quotes.

Role as a School Nurse

When participants were asked about their role as a school nurse, they described a multitude of duties that they regularly must manage including assessment of acute injuries and illnesses, care of chronic conditions, administration of authorized medications, health promotion and prevention activities for both staff and students, coordination of care and resources, and provision of emotional support. Not surprisingly, participants said that students come to the nurse with acute illnesses such as headaches, sore throats, fevers, stomachaches, and vomiting as well as injuries acquired on

the playground, and she must use her training to assess the situation and appropriately triage the student.

> We are constantly seeing [students] for a medical condition and making an assessment of whether they can stay at school or not stay at school, if we can do something at school to make it better for them, medication or whatever it is, if it's an earache and you look in their ear and it's infected then you're calling the parent.

They also check students for head lice and comb students' hair with louse combs when home treatment has been ineffective. In addition to the acutely ill and injured students who present to the school nurse, participants care for chronically ill children. One nurse commented:

> I think [a] misconception is that we just do band-aids and boo-boos and really there's more and more ill kids coming to school . . . and I don't think people are even aware that we even do those things.

Nurse participants described caring for chronically ill students with diagnoses including attention deficit hyperactivity disorder, asthma, life-threatening allergies, cancer, diabetes, epilepsy and seizure disorders, hemophilia, heart conditions, and head trauma, among others. Nurses said that they are tasked to care for students' tracheostomies, gastrostomy tubes, and urinary catheters as well as monitor blood glucose levels, count carbohydrates, and administer medications ranging from albuterol to diastat, epinephrine, glucagon, and insulin.

School nurses described a number of preventive care and health promotion activities for students and staff alike. They reported checking students' heights and weights, screening their vision and hearing at the start of the school year, performing physical exams and dental screenings, and administering immunizations and fluoride treatments. Respondents noted that offering these services at the school prevents students from missing class to go to a clinic in the community. Some nurses noted that they regularly screen middle and high school students for drug use, with particular attention to students who drive or participate in extracurricular activities, and refer students with positive drug screens for counseling and treatment services. Nurses provide age-appropriate health education in the classroom including handwashing/hygiene and human growth and development, as well as mandatory, weekly tobacco education classes for students caught chewing or smoking cigarettes. They host health fairs for both students and staff and implement workplace wellness initiatives such as Humana Vitality screenings and weight loss programs. Nurses said that they often administer allergy shots and other medications to teachers and staff, thus contributing to the employee wellness component of WSCC.

School nurses explained that an integral piece of their job is coordination of care with other providers and service agencies. They described working with physicians, pharmacists, and dentists to understand students' conditions and their care plans, so that services can be safely and appropriately provided at school as well as to arrange services that cannot be delivered at school.

> There's a lot of collaboration with doctors as well, even pharmacies. It seems like if you can't get what you need from the parent then we do a lot of contact directly with the doctors' offices, pharmacies, and things like that to ensure that our students are safe and that all staff that need to be aware, are.

Indeed, nurses said that a big part of their role is educating, training, and delegating the delivery of school health services to other staff in order to keep students safe. They described the reality that they cannot be in more than one place at one time, so they train people to deliver some services and respond to emergency situations in their absence. This training and delegation allows students with chronic conditions to participate in activities such as field trips without a nurse present.

> There always has to be someone, and you can't pull the nurse with 1200 students to go with one single class. So that's why you have to delegate and train others. At the beginning of the year I go through everybody's emergency medical information and find out what they have, and . . . . develop a health plan and then get those appropriate people trained.

Many nurses described instances when they provided emotional support to students and connected them with services to improve their home lives. They said that students consider them a "safe zone" and share information with them that they may not communicate with others. Some students just come in for hugs, seeing the nurse as a "mommy figure" at school. Nurse participants said that students oftentimes present with a physical complaint such as a headache or stomachache but then talk about other issues, such as divorce of parents or thoughts of self-harm. The nurse then recruits the help of psychologists, social services, and counselors as appropriate to the situation. Many school nurses also coordinate "at-risk meetings" at least once each month. Prior to the meetings, they generate reports of students' attendance, grades, and behaviors to identify students who are at risk of academic issues. During the meeting, the nurses lead discussions of these at-risk students with the principal, counselor, various teachers and specialists, and even cafeteria personnel to identify contributing factors and issues. After the meeting, school nurses follow up with the student and his/her family, sometimes even visiting their home, before recommending intervention methods and services. By collaborating with and connecting these various school resources with families and community partners to meet the individualized needs of each student, school nurses implement the WSCC model each day.

Changes Due to Budget Cuts and Legislation

In response to how their duties changed due to budget cuts, participants cited several negative effects including low wages, lack of employer sponsored benefits, and a high workload with decreasing administrative support. Many complained that their salaries are less than nurses in other sectors such as hospitals and clinics. One nurse said that she gets paid less now as a registered nurse in the school system than she did with less education (licensed practical nurse) in a clinical setting. Some nurses said that they do not receive benefits such as health insurance, while others said that they do receive benefits but do not get paid in the summer months when school is not in session. Nurse participants also lamented that they have not received pay raises in several years, which affects retention and recruitment of new nurses. They explained that, whereas nurses in the past would accept a job in the school setting despite a lower starting salary since regular pay raises of approximately 5% annually were the norm, nurses now recognize that pay raises should not be expected and are less likely to seek out a job in the schools. School nurses also said that budget cuts have prevented vacant nursing positions from being filled and reduced the number of days and hours that they are contracted to work. They noted that these lost days, particularly at the beginning of the school year, reduce the time they have to read students' health records, plan for accommodations, and train and delegate health service delivery to staff.

School nurses also reported higher workloads than in the past due to fewer school nurses and less administrative support. They discussed having to now cover multiple schools and "running" between schools during the day to give insulin injections. School nurses explained that the burden of documentation, billing, and recordkeeping now falls predominantly or solely to them since clerical support for school nurses has been greatly reduced or eliminated completely in some areas.

When participants were asked how their jobs have changed due to legislation which expanded the duties that could be delegated to UAP to include insulin injections, their responses were best characterized by this response:

> We have yet to see because it's just started. We have yet to see how the staff is going to react to this and nobody may want to take responsibility for it.

Several nurses voiced concern that delegation to unlicensed staff may not be a viable solution. They anticipated that staff may refuse to take on the role due to worry about liability and legal issues that may result. Participants also noted that even trained staff who had been delegated the delivery of specific services in the past had felt uncomfortable delivering those services when the time for care arose.

> We had a [student with diabetes] go on a field trip last year and the aide was trained and even though she was trained, she was scared to check his sugar. . . . She ended up calling the parent and that parent ended up keeping the child at home and he didn't get to go on that trip.

Nurses who were employed in a district that had a nurse in every school said they had no plans to delegate injections to UAP at this time even though the law allows it. Nurses in other districts supported the regulation because increased delegation necessitates more training of unlicensed school employees—so more informed stakeholders are on alert for signs of medical emergencies. One nurse said:

> So far as with the delegation, the person who you're delegating to is required [by the new law] to have the training of what to look for whereas before they were not. It was just us. So it's actually made it a little better because you have someone that's there that knows what to look for and things that they can do to help in that situation whereas before they might have not known.

Another nurse speculated that the law could ease the burden of nurses traveling between schools at meal times to care for students with diabetes:

> I can only imagine for someone who was having to run into three buildings to give insulin and run back out, giving the shot is the easy part of it. It's when [blood sugar] peaks and when there's two [students] . . . . so I can imagine it's made it easier for them because they're better able to address the true issues related because they're just running in and. . . . otherwise, you're running in and you're really running out.

Challenges to School Nursing

School nurses discussed many challenges that they perceive as interfering with their ability to fulfill their roles, including insufficient time, burden of redundant documentation requirements, lack of familial support and/or resources, and language barriers. Many nurses mentioned that they do not have enough time during the school day to complete all of their duties. One nurse said:

> Children are lined up at my door from the minute I walk into the building until 30 seconds before the bell rings at the end of the day.

Another stated that demands for her time don't cease at the end of the school day, recalling an instance that she was contacted after school to assess a student who began having health issues on the bus. Nurses also cited financial constraints as a barrier to their jobs:

> Financially, that's probably the largest [challenge] because it prevents you from doing everything. We don't have state buy-

> in. We need that support in order to maintain and keep providing the care that we can do.

A common theme in participants' discussion about the challenges of being a school nurse was the required documentation—both paper and electronic—accompanying all of their tasks.

> Everything that we're doing we're not only doing but then you have to spend 40 minutes documenting it too, you know, in four or five different places and getting all the information out to where it needs to be. . . .

Nurses described documentation associated with billing Medicaid and running daily, weekly, and monthly reports to submit for regulatory and auditing purposes.

In addition to challenges with requirements of the job itself, participants described barriers presented by students' families. They discussed problems with families' lack of education or understanding of their child's chronic condition and treatment regimen. Participants told stories of parents who neglect to return their phone calls or complete paperwork necessary to inform nurses of students' health history and allow them to deliver services at school. They also discussed that some students lack a caring adult at home.

> We had a student that I went and assessed over at the alternative school and he had struggled to breathe all night long and they had already given him a nebulizer treatment at school per our protocol—trained staff had done that—but . . . he was wheezing, couldn't get the aunt who was the guardian to return a phone call or the guardian's significant other to pick up the phone so we had the principal go out to the [home] in the meantime because he needed to go to the doctor. [The guardian] didn't have time, she said someone else would have to deal with it. So we had to call 911 . . . [Not all children] have someone in that home advocating for them so I feel like that's one thing as far as the barriers . . .

Compounding this issue are language barriers. Nurses described that some of their students and families do not speak English, and some children must translate forms and conversations between their caregivers and nurses. Participating school nurses lamented that many well-meaning families lack health insurance, transportation, and even running water, so although they know their children are sick or need medications, immunizations, or dental attention, they are unable to physically get to or pay for those services or supplies. Finally, nurses conveyed that another barrier is having medications and supplies available at school. They described students with asthma not having an inhaler or nebulizer at school because they only have one and left it at home. Nurses attributed this barrier to the cost associated with purchasing two sets of medications and supplies so that they can access them at home and school without worrying about taking them back and forth each day.

Impact on Students

When participants were asked how they impact students in their school nursing role, many responses involved advocating for the students, linking them to resources, offering them a nurturing hug, and monitoring for social and home issues that may underlie the physical issues for which students present. Many of these were discussed in the sections above. Nurses stated they are positive, friendly, and caring to all of the students.

> I had a kid say to me, 'You know you're the only person that's ever talked to me like I had any sense.' And it's terrible; it shouldn't be that way. But sometimes we are the one person.

Nurses said that they provide students a safe place to talk or just take a breather if they are feeling anxious. They also noted that they are much more accessible to students than other school staff:

> For most of us, we don't have a receptionist or a secretary or anybody and our door is open until we need to shut it for confidentiality—it's an open door. So they're revolving in and out even if they do need that hug . . . It really is, for the most part, you get to walk in and if we can't see you right then, we'll get to you just as soon as we can.

The impact of school nurses was demonstrated in their stories of collaborating with others to provide resources for students in distress. One such story is reproduced below.

> We had a little boy the other day . . . from Honduras and he came in with a toothache. We do have a lady that speaks Spanish in our school so she'll come down and translate for me. But his tooth was three-quarters gone. And he ended up staying home the next day. Since he's not here legally, he had no access to health care so I called one of the dentists who agreed to take him pro bono, pulled it . . . . Our principal let [our bilingual employee] go translate for the dentist because nobody in the household speaks English, and then of course the Family Resource Center was in on it too so it was the collaboration of us all trying to link them with someone.

One nurse summed it up best by saying:

> So what we really do overall is try and reduce barriers so kids can come to school and learn.

School nurses impact students by focusing on each student individually as a child within a larger system, assessing and addressing their unique needs by organizing collaborative actions and engaging resources in the school, family, and community to improve both academic and health outcomes. Such student-focused, multifaceted collaboration is the essence of the WSSC approach (Lewallen et al., 2015).

Discussion

Focus groups with school nurses in Kentucky provided a rich description of their multifaceted duties. Supportive of previous research (Baisch et al., 2011), nurses in the current study reported that they spend a considerable amount of time at the beginning of the academic year compiling students' health records and corresponding with other care providers to ensure that students' individual health plans are accurate, complete, and feasibly implemented at school. When students' health issues (including immunizations) are not being addressed due to lack of insurance, transportation issues, or language barriers, school nurses take on a leadership role by creating awareness of the need for vaccinations, providing vaccination education, and organizing vaccination clinics at school (NASN, 2015a). In addition, school nurses offer screenings at school (Kemper et al., 2012), connect students with practitioners who will deliver services at a reduced or no cost, and provide school personnel to translate during appointments. Without the time, skill, and resourcefulness of school nurses, these students' health needs may go unmet and result in absences or suboptimal performance in school.

In addition to their efforts in preventing disease and illness, nurses in the current study described that much of their time is spent assessing students' acute symptoms and injuries. Research indicates that school nurses contribute to improved attendance by reducing illness rates through prevention education, early recognition of disease, chronic disease management, and increasing return to class rates (AAP, 2016). When students are seen by a school nurse for illness or injury, 95% are able to return to the classroom. On the other hand, when students are seen by unlicensed personnel, they are more likely to be sent home from school or to the emergency room needlessly. (Pennington & Delaney, 2008).

Kentucky school nurses echoed the literature in describing the myriad chronic health issues that afflict today's students (Cohen et al., 2011; VanCleave et al., 2010). Nurses administer a number of medications and maintain a variety of medical devices everyday (Lineberry, 2016; Maughan, McCarthy, Hein, Perkhounkova, & Kelly, 2017). Certainly one participant's comment about the misconception that school nurses just deal with boo-boos and Band-Aids is justified by the stark reality of these serious medical conditions and accommodative equipment. Without the presence of nurses who are trained to safely manage and monitor these conditions—and carefully document the care provided—and who have dedicated time to do so, teachers and other school personnel would be responsible for students' health issues in addition to, or possibly at the expense of, their primary instructional and administrative duties (Baisch et al., 2011; Hill & Hollis, 2012).

Kentucky school nurses have faced many negative consequences due to budget cuts such as fewer paid working days, vacant nursing positions being eliminated rather than filled, noncompetitive salary and benefits packages, and infrequent pay raises. Fewer nursing positions and fewer paid days for school nurses increase the workload while decreasing the amount of time to complete the work—a potential precipitant for nurses' frustration and diminished care for students. At the time that the focus groups were conducted, nurses had not yet encountered any discernable effects of KRS 158.838. Several school nurses said that, although they can now legally delegate injections of insulin to UAP, they had no immediate plans to do so in their schools unless school nursing positions or hours were decreased enough to warrant delegation necessary. Some school nurses were concerned that delegation of injections to UAP is not a viable solution to caring for chronically ill students. Non-nursing staff may refuse to fill this role out of fear of liability (Hill & Hollis, 2012) or may be trained as UAP, but then refuse to provide care when the time arises to give the injection as nurses have encountered in the past with other delegated tasks. On the other hand, school nurses appreciated that the new regulation increases the training that UAP must receive, equating more training with increased awareness of health conditions and the potential for better recognition of signs of distress that chronically ill students may exhibit. The actual consequences of KRS 158.838 will unfold in the coming years as individual districts choose whether or not to exercise the delegation of additional diabetes-related tasks.

Kentucky school nurses in this study articulated many of the same challenges that are reported in the literature (Major et al., 2006; Morrison-Sandberg et al., 2011; Smith & Firmin, 2009; Stalter et al., 2011), such as lack of time, limited resources, language barriers, and communication issues with families. Nurses conveyed that their biggest impact on students is their ability to identify and address these barriers, so that children's physical and psychosocial needs are met. Similar to findings in earlier research, the nurses in this study described that frequent visitors to the nurse often have unmet needs or struggles at home (NASN, 2017) or with peers (Vernberg et al., 2011), so they take the time to have meaningful conversations with these students to identify and address the underlying roots of their problems (Smith & Firmin, 2009). School nurses advocate for their students by not only referring them to social services for ongoing help but also by meeting their immediate needs of such things as clothing (Strauss, 2014) and food (NASN, 2016), so that they can more confidently and attentively participate in learning activities.

Limitations

Several limitations exist with focus group methodology (Smithson, 2000) and should be recognized when interpreting the results of this study. First, the researcher utilized a convenience sample rather than randomly selecting school districts to invite to participate. Since school nurses in the selected districts opted in or out of the study, it is possible

that the nurses who chose to participate have stronger ideas about their roles, challenges, impact, and changes and do not necessarily reflect the opinions of nonparticipating nurses in their districts. Also, since only three regions were selected to participate in the study, the data may not represent the full spectrum of experiences and attitudes of school nurses across the state. Therefore, the results of this study may not be generalizable to other areas of Kentucky or beyond.

Furthermore, the PI could have inadvertently introduced bias into the study by giving nonverbal cues of agreement or surprise during focus group conversations or could have prompted further discussion of some participant comments rather than others thereby influencing the collected data. Participating school nurses may have had experiences or attitudes that were different than those voiced during the focus groups but felt uncomfortable offering those alternative views in front of their peers. In other words, some participants may have felt socially pressured to either agree with their peers during the focus groups or remain silent, thereby leaving their ideas unrepresented in the data.

Implications for School Nursing

Since nurses constantly collaborate with other school staff and practitioners in the community to meet the needs of students and their families, local and state boards of health should prioritize facilitation of these collaborations. Currently, school nurses must spend their already thinly stretched time identifying translators and pro bono service providers. School boards and school administrators should regularly convene community members, social services personnel, and school nurses to share current resources in order to allow nurses to focus on their many other tasks while still meeting the needs of students.

Since school nurses are so pressed for time and are challenged by not only delivering health services but also documenting and reporting on those services, the regulatory bodies requiring that documentation should convene to discuss opportunities to combine and condense the paperwork. Although recordkeeping is critical for student safety, continuity of care, and billing purposes, it may be that a coordinated system of documentation would result in the same result with a lower burden of time. Administrators may also consider collecting data on the utilization of other clerical positions in the school to discern if another staff member may be able to assist the school nurse with paperwork. This strategy would benefit the school nurse but not affect the budget. As demonstrated by the WSCC model, stakeholders at multiple levels within the system—from regulatory bodies to local administrators and from school employees to families—must all come together to coordinate policy, processes, and practices and share resources for the common goals of improved educational and health outcomes.

Local and district school policy makers should be mindful of the full spectrum of duties fulfilled by school nurses. Policy makers and administrators determining budgets should bring school nurses to the table to develop safe and feasible regulations and standards. The nurses in this study certainly made a case for the importance of the duties that are performed prior to the start of the school year and school administrators need to reexamine cost-cutting directed at those days. Since student health is associated with academic achievement related to grades, test scores, school attendance, and student behavior (Michael, Merlo, Basch, Wentzel, & Wechsler, 2015), school nurses directly benefit the education of students.

Since participating school nurses had not yet encountered many changes due to the amendment in the insulin administration law several months after its passage, researchers should continue to study the practices of school nurses in Kentucky to follow its effects over time. In addition, future studies should utilize survey methodology with all school nurses in Kentucky or other areas of the United States. Since the current study precipitated so much discussion about the delegation of diabetes-related school health services and revealed vastly different practices and attitudes of school nurses in the three regions, this area of school nursing is particularly suitable for future research. Also, even though this study was conducted in only one state, delegation of health services in schools is a controversial issue nationwide. Given the many possible medical and legal consequences associated with the delegation of diabetes-related tasks in schools, this issue should be studied in other states as well.

Conclusion

Issues identified in this study are of interest to school nurses in other states who may be facing the same issues. Focus group data revealed that school nurses in Kentucky manage a number of complex tasks everyday despite facing challenges of limited time and resources, communication barriers with students and families, and multiple documentation requirements for each service provided. Administrators and legislators should be made aware of the importance of school nursing to the health and academic success of students. School nurses attribute their availability to students, their ability to recognize students' underlying psychosocial problems and health concerns, and their persistence in connecting students with appropriate resources as their greatest impacts on students. Although, at the time of this study, Kentucky school nurses had not yet encountered many changes in their jobs due to new legislation that expanded the diabetes-related tasks that they could delegate to unlicensed school personnel, their statements reflected that some nurses had concerns about possible negative effects on students' health while other nurses expressed support for delegation of diabetes care. The issue of delegation should be studied further in Kentucky and other states across the nation.

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