

Elementary School Nurses' Perceptions Regarding Menstruation Education: An Exploratory Study

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Abstract

Menarche can be a difficult transition for young people. With appropriate education, youth can feel more positively about the menstrual experience. Since many elementary teachers are not equipped with menstrual health knowledge, the education falls to the school nurse. However, it is unknown if school nurses feel comfortable communicating about menstruation with young people. The purpose of this study was to explore school nurses' perceptions regarding menstrual health education in elementary schools (grades K-5).

An online mixed-methods survey was established using Qualtrics. Through snowball sampling, 30 elementary school nurses responded. Using the Integrated Behavioral Model (IBM) as a framework, a deductive semantic thematic analysis was used to identify themes for each question.

Data suggested that elementary school nurses would participate in professional development regarding menstrual health and hygiene. School health nurses are receiving limited knowledge/skills surrounding pedagogy and are not familiar with cultural differences when it comes to menstrual health.

Keywords

school nurse, menstrual health, elementary schools, pedagogy, menstrual hygiene, communication, qualitative, survey, exploratory

Menarche is an important health issue, especially early menarche, and can cause both psychosocial problems and physical problems (Yoo, 2016). It often produces anxiety due to the stigmatization and secrecy of being able to talk openly about menstruation (Dammery, 2016). This additional anxiety can impact the school environment, posing absenteeism problems and therefore impacting their ability to succeed within the school environment (Sommer et al., 2016). When provided with appropriate education, young people can feel more positively about the menstrual experience while also obtaining correct information regarding menstruation (Sommer & Sahin, 2013). Some schools do not address menstrual health and hygiene until after students have started menstruating, however it is appropriate to begin menstrual education before a young person hits menarche (Chang et al., 2010). In 2020, the revised National Sexuality Education Standards highlighted the importance of Puberty & Adolescent Sexual Development being taught with specific objectives by the end of 5th grade (Future of Sex Education Initiative, 2020).

beliefs (Stubbs, 2008). To keep young people from turning to each other for incorrect advice, schools must begin menstruation education at the elementary school level (grades 4–5). Since many elementary teachers are not trained with the knowledge of puberty and menstruation, the education falls to the school nurse, since the school nurse is both educated about menstrual health (Chang et al., 2010) and usually equipped with hygiene products. However, it is unknown if school nurses feel comfortable with communicating about the topic with young people, and how much help is provided to elementary students when it comes to menstruation. The only previous study that focused on school nurses and their perceptions about teaching menstrual health and hygiene to students was completed almost 30 years ago (Swenson et al., 1995). While most nurses reported teaching

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School Nurses and Menstruation Education

Some young people turn to their parent/guardian for education, while others feel uncomfortable due to familial cultural

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menstrual content in grades five and six, and many educated both boys and girls, only 39 school nurses were surveyed (Swenson et al., 1995).

While school nurses have education regarding reproduction and menstruation, many may have not had any professional development on how to communicate properly with elementary students regarding topics like menstrual hygiene and/or transgender health issues (Cleaver & Rich, 2005). The National Association of School Nurses (Selekman et al., 2019) developed a textbook that contains a framework for school nursing practice. This textbook contains vital information that provides both content knowledge and self-efficacy skills to help prepare school nurses to talk about sexual health (Selekman et al., 2019), however it is unknown how many school nurses have knowledge about this textbook or have used it during preparation for becoming a school nurse. Therefore, knowledge about what school nurses are/are not teaching elementary students about menstruation is vital.

Purpose

The purpose of this study was to explore school nurses' perceptions and abilities regarding menstrual health and hygiene education in elementary schools. These findings can then be utilized to develop a questionnaire with appropriate constructs to further investigate elementary menstrual health and hygiene education.

Methods

An 11-question online mixed-methods survey (ten qualitative questions and one quantitative question) based on the Integrated Behavioral Model (IBM) was established using Qualtrics (Figure 1). The IBM describes that intention is the strongest predictor to performance of a behavior (Glanz et al., 2015), thus the survey was developed to explore the following constructs: Attitude (i.e. how an individual's attitude is influenced by their personal beliefs and feelings about the outcome of a behavior), injunctive norm (i.e. an individual's beliefs about what other people whose opinion they value think about engaging in or not engaging in a behavior), and efficacy beliefs (the extent to which an individual feels adept at performing a behavior). Participants were asked about their knowledge/attitudes regarding menstrual health and hygiene, if they believed parents were supportive of menstrual health and hygiene education, and their self-efficacy regarding teaching about menstrual health and hygiene. All data collection protocols were approved by the university's institutional review board prior to commencing the study.

An email with an anonymous survey link was sent to Minnesota District School Nurses (public health emergency contact). Minnesota does not publicly make available the contact information for nurses who work at elementary schools in Minnesota. Minnesota only lists the school

nurse who is the district-level contact for each school district. Minnesota District School Nurses' email addresses were obtained from a public website. It was requested that these District School Nurses then forward the survey to school nurses in their districts that worked at elementary schools (grades K-5). A total of 279 district-level nurses were contacted to forward the survey to nurses that worked in elementary schools in their district. A follow-up email was sent two weeks later. Through snowball sampling, a technique used to recruit participants by asking others to identify possible participants, 30 elementary school nurses completed the survey during the three weeks the survey was available. Consent language appeared as the first page of the survey, and participants who clicked "no" to the consent statement were exited from the survey. No demographic information was included in the survey, though some participants decided to self-identify information such as their gender, and all information was aggregated in reports to protect participant privacy.

Using the IBM as a framework, a deductive semantic thematic analysis was used to first code participant responses, and then identify themes for each survey question. The methodology of thematic analysis is used for identifying and analyzing any patterns or themes found within data (Braun et al., 2016). Through reading and one rereading of data, the authors were able to extract multiple themes regarding menstrual health and hygiene education. Since this was an exploratory study in order to operationalize indicators for future studies, IBM conceptualized constructs were not measured.

Results

Theme definitions regarding Attitude Construct

- (1) *Knowledge*: participants felt that it was important that elementary school nurses be up to date in their knowledge about anatomy, hygiene products and use, terminology, and resources available regarding menstrual health and hygiene:

"I have been observing female students beginning their menstrual cycles earlier each year. The more information and education we can provide early, would benefit those students and their families."

Participants also determined that addressing mental and emotional aspects surrounding menstrual health and hygiene was another important factor:

"Girls should be educated as to puberty: what it is; why it occurs; when it occurs; physical and social/ emotional body changes; safety and how to manage these changes and stay healthy."

- (2) *Skills*: besides knowledge, participants believed that certain skills were essential to menstrual

Definitions:

Menstrual hygiene management (MHM) refers to management of hygiene associated with the menstrual process. The World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) Joint Monitoring Programme (JMP) for drinking water, sanitation, and hygiene has used the following definition of MHM: 'Women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of a menstrual period, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials. They understand the basic facts linked to the menstrual cycle and how to manage it with dignity and without discomfort or fear

Menstrual health and hygiene (MHH) encompasses both MHM and the broader systemic factors that link menstruation with health, well-being, gender equality, education, equity, empowerment, and rights. These systematic factors have been summarized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as accurate and timely knowledge, available, safe, and affordable materials, informed and comfortable professionals, referral and access to health services, sanitation and washing facilities, positive social norms, safe and hygienic disposal and advocacy and policy.

-UNICEF. (2019). Guidance on Menstrual Health and Hygiene. <https://www.unicef.org/wash/files/UNICEF-Guidance-menstrual-health-hygiene-2019.pdf>

Questions:

1. What knowledge do you think is necessary to have about menstrual health and hygiene as an elementary school nurse?
2. Do you feel that you are up-to-date on knowledge regarding menstruation hygiene management products (e.g. disposable pads, reusable pads, tampons, menstrual cup, absorbent underwear, etc.)?
3. What skills do you think are necessary to have regarding teaching students about menstrual health and hygiene as an elementary school nurse?
4. Do you feel comfortable talking to elementary students of any age, gender, or culture about menstrual health and hygiene?
5. Do you feel you received enough preparation (e.g. educational programs, professional development, etc.) to talk to elementary students about menstrual health and hygiene?
6. Were you provided a curriculum that included how to teach menstrual health and hygiene?
7. What, if any, areas of menstrual health and hygiene do you feel like you wish you knew more about?
8. What things do you currently, or have you done in the past, regarding teaching elementary students about menstrual health and hygiene? (check all that apply)
 - Handing out hygiene products in nurse's office (pads, tampons, etc)
 - Had hygiene product supplies easily accessible in school bathrooms
 - Held an assembly in the auditorium about menstrual health and hygiene
 - Taught in the classroom to females about menstrual health and hygiene
 - Taught in the classroom to males and females about menstrual health and hygiene
 - Taught one-on-one with students who identify as female about menstrual health and hygiene
 - Taught one-on-one with students who identify as male about menstrual health and hygiene
 - Taught one-on-one with students with a physical disability
 - Taught one-on-one with students with an intellectual/developmental disability
 - Other _____
9. Do you feel that parents are supportive of school nurses teaching about menstrual health and hygiene to elementary students?
10. Do you perceive any barriers/constraints to teaching about menstrual health and hygiene?
11. Does your school have a health education teacher who teaches menstrual health and hygiene to the elementary students? Or do you have a health education teacher, but they request you to come into their classroom to teach about menstrual health and hygiene?

Figure 1. Menstrual health and hygiene education exploratory questionnaire.

health and hygiene education such as appropriate pedagogical methods, having a non-judgmental demeanor, demonstrating comfort with the topic area, incorporating cultural differences, relationship building with parents and students, communication skills, and use of technology:

“The other factor is realizing that some girls have not been exposed to any previous teaching and know absolutely nothing about the products and how to use them. It is very important to actually demonstrate how to use products, to the point of peeling off the back of a pad and placing it in a pair

on underwear, taking it off, rolling it up and placing it in a proper garbage container.”

Theme definitions regarding Injunctive Norm Construct

- (1) *Parental support:* most nurses (80%) described parents as being supportive of elementary school nurses teaching about menstrual health and hygiene, especially if the parents were able to review the curriculum beforehand:

"Yes, for the most part. Most of them welcome it so they do not have to do it. Parents are invited to preview our video if they chose to."

A few nurses (6%) reported parents being supportive only some of the time, while a couple other nurses (10%) did not know/never asked parents.

- (2) *School administration support:* some school nurses (17%) noted that they felt school administration was not supportive of elementary school nurses teaching about menstrual health and hygiene. The lack of support was due to administration giving elementary school nurses too much responsibility for other things, which took away availability to teach about this topic area. Administration also did not give support in the form of providing materials and resources regarding menstrual health and hygiene:

"Time is always a precious commodity....I am always pressured to stay on time. Sometimes I am cut short and tell students to come to my office if they have more questions."

Theme definitions regarding Efficacy Beliefs Construct

- (1) *Comfort:* while most participants (97%) replied that they were comfortable talking to any elementary student/s about menstrual health and hygiene, some had concerns. In particular, male nurses reported not knowing how to make female students feel comfortable during menstruation education, and a couple of nurses reported that they don't have the knowledge about cultural differences to feel comfortable addressing any differences during education about menstrual health and hygiene:

"For the most part, yes. I feel comfortable. However, I don't know how to gauge if the audience is comfortable with a male nurse teaching them, aside from flat out asking."

Many addressed being more comfortable if they had knowledge about more hygiene products such as menstrual cups and underwear.

- (2) *Preparation:* most elementary school nurses (53%) reported not receiving enough preparation to teach about menstrual health and hygiene to elementary students. Elementary school nurses became self-taught through experience or communicating with peers:

"I have taught myself many things and I have found some good resources but it would be nice to be trained on menstrual health

and hygiene like we are trained on how to do vision and hearing screening with a clearer process and guidance as to what ages things should be taught at."

"We did have a few days of school health in our nursing curriculum in college, but nothing directly related to menstrual health. I have also never seen professional development around this topic but I think it would be a great idea. The school nurse is the first person a girl will come to with any menstrual issues at school as long as the nurse has an active presence at the school."

Though not professionally prepared, many nurses were able to use lessons and materials from an organizational educational curriculum. To increase self-efficacy for teaching about menstrual health and hygiene, elementary school nurses would like to learn more about hygiene products, cultural differences, and pedagogical practices.

"I have developed my own program using a variety of curriculum resources."

- (3) *Barriers:* there were some perceived barriers present for nurses to effectively teach menstrual health and hygiene. These barriers included having to teach online/distance learning, having enough time, not having materials (such as hygiene products), and cultural/language barriers between the nurse and students.

"Probably would help to know more about programs the help under privileged students obtain supplies. Also, how to help families teach children with disabilities, like Down Syndrome or Autism, about menses and how to use products."

- (4) *Performance:* all participants reported having handed out hygiene products in the school nurse's office. Other factors the majority of participants reported undertaking included teaching females in a classroom about menstrual health and hygiene (77%), talking one-on-one with students who identify as female about menstrual health and hygiene (53%), and talking one-on-one with students with an intellectual/developmental disability about menstrual health and hygiene (50%). Aspects that were less reported included having hygiene products accessible in school bathrooms (30%), teaching in the classroom to both males and females about menstrual health and hygiene (30%), teaching one-on-one with students who identify as male (23%) or had a physical disability (23%) about menstrual health and hygiene, and had an assembly about menstrual health and hygiene (3%).

Discussion

The most significant finding of this study is the need for improvement in self-efficacy for elementary school nurses. While many studies in the past have focused on school administration and teachers being the main barrier to teaching sexual education topics (including menstrual health and hygiene) in elementary school (Cleaver & Rich, 2005; Hayter et al., 2008), these findings suggest that the focus should be on professional development and school nurse preparation programs. School nurses are not afforded the opportunity to learn about how to teach menstrual health and hygiene to elementary students, nor are any professional development opportunities provided. In fact, many nurses must learn through experience alone, which is not promoting the use of best practices in the area of sexuality education. The use of resources available to school nurses, like the school nursing textbook based on the Whole School, Whole Community, Whole Child approach (Selekman et al., 2019), should be a focus for both preparation programs and school nurse organizations. There are valuable resources available to school nurses, but the question remains if they have access to them or even knowledge about these resources.

Another key finding was that many elementary school nurses in Minnesota use an organization developed puberty program that touches on menstrual health and hygiene, this program was reviewed by a professional organization that no longer exists, leaving no further professional oversight of this particular program. School nurses should be vigilant when using materials that are not continuously reevaluated by experts in the field.

The research sample was delimited to elementary school nurses in Minnesota, and may not be generalizable to other states or the United States as a whole. The preparation and requirements to be a school nurse in Minnesota may not be the same as other states' requirements. Caution should be used when interpreting the results due to the modest participation through snowball sampling. This research is qualitative in nature, and future research should extend results by conducting a quantitatively designed study.

Since the last research on school nurses regarding teaching menstrual health (Swenson et al., 1995), there has been a shift in menstruation educational needs due to new hygiene products out on the market, and with more young people identifying as transgender, promoting menstrual equity is an important skill school nurses should learn. Many health providers do not receive transgender competency training regarding menstrual health (Lane et al., 2021).

This study reveals factors that need to be put into focus for a larger, quantitative study in order to advance the school nursing field. Though school nurses appear to have knowledge about menstrual health and hygiene, disseminating this information to elementary students can prove difficult for school nurses who do not have enough self-efficacy about

communication and pedagogical practices. Researchers of this article have expanded their study to include different states, as the needs of elementary school nurses may vary from state to state. Future research should expand on what elementary school nurses need in terms of preparation to teach health topics such as menstrual health and hygiene.


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