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„The "School Nurse" in Austria: A Review of the Needs and Applications of the Model in Austria"

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Clara Martha Rebecca Kluckner

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Abstract

Background

In Austria, school-aged children with medical needs – acute and chronic illnesses – are currently cared for by part time school physicians. In comparison, many other countries employ full-time school nurses instead. A plethora of studies show the benefits of having someone full-time at the school in charge of caring for the health needs of children throughout their entire school day.

Goal

The goal of this work is to investigate if the experiences of the teachers and parents of school-aged-children in Austria currently reflect any need for change. This is compared to testimony from experts on the current system in Austria. This information is then compared with the established role of a school nurse to determine if this is a viable solution moving forward.

Methods

Through 13 semi-structured interviews, teachers, parents and experts are asked to reflect on their experiences in the current system. An inductive analysis of the transcribed interviews helps reflect their experiences and determines if there are any unmet needs. This is then deductively analyzed with the established tasks of a school nurse to determine if this profile would be fitting in the Austrian setting.

Findings

The results of the interviews show that teachers feel left alone and wish to have medically trained support for their students. Parents are hoping for less disruption from their day and more time for their children in school. Experts name many failings of the current system in meeting the needs of students and see a need for improvement. The specific examples named by the interviewing partners and their beliefs of what is needed match well to the established role of a school nurse and thus this could be a viable option for Austria moving forward.

Kurzfassung

Ausgangslage und Hintergrund

Schulkinder mit medizinischen Beschwerden – akut und chronisch – werden in Österreich von einem in Teilzeitig tätigen Schularzt versorgt. Im Vergleich dazu sind in anderen Ländern Schulgesundheitspflegende in Vollzeit im Einsatz, sogenannte ‚School Nurses'. Studien haben gezeigt, dass es für sowohl für Kinder und deren medizinischen Anliegen als auch der Schule als Ganzes von großem Vorteil ist, jemanden in Vollzeit zur Verfügung zu haben.

Zielsetzung

Das Ziel dieser Arbeit ist es, basierend auf den Erfahrungen von LehrerInnen und Eltern von Schulkindern, zu untersuchen, ob die Notwendigkeit einer Änderung an der existierenden Gesundheitsversorgung besteht. Dies wird einerseits mit Aussagen von ExpertInnen in Österreich und andererseits mit der etablierten Rollenbeschreibung der School Nurse analysiert. Daraus wird abgeleitet, ob eine School Nurse eine passende Alternative sein kann.

Methode

Anhand von 13 semi-strukturierten Interviews werden LehrerInnen, Eltern und ExpertInnen zu Ihren Erfahrungen zum aktuellen System der gesundheitlichen Betreuung in den Schulen befragt. Anhand einer induktiven Analyse der Gesprächsprotokolle wird ein Bild der Erfahrungen gemacht. Durch eine deduktive Analyse werden die unerfüllte Bedürfnisse mit den vorgegebene Arbeitsaufgaben der School Nurse gegenübergestellt, um festzulegen, ob eine School Nurse zur Situation in Österreich passt.

Schlussfolgerung

Die Ergebnisse der Interviews zeigen, dass sich LehrerInnen alleingelassen fühlen und sich mehr fachliche Unterstützung für die gesundheitliche Bedürfnisse ihrer SchülerInnen wünschen. Eltern hätten gerne, dass es in ihrem Alltag weniger Unterbrechungen gibt, und dass die Kinder mehr Zeit an der Schule verbringen können. ExpertInnen haben zahlreiche Mängel des jetzigen Systems genannt. Diese Bedürfnisse und Wünsche passen sehr gut zum etablierten Berufsbild und den beschriebenen Kompetenzen einer School Nurse. Diese wären eine mögliche realistische Alternative für die Zukunft in Österreichs Schulen.

Disclosure

The following work was written with an attempt to respect all participants and readers. To respect gender identity and protect anonymity of participants, the pronoun of “they” was used for the interview partners.

The term school nurse is used throughout and reflects not only currently literature but also is considered the term is used for all genders and does not refer to only female identifying persons. Similarly, the term school physician is used when referring to any persons within this profession.

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1 Introduction

The role of "School Nurse" has a long-standing history in the United States, England, Sweden and several other countries (Hoekstra, 2016, Kocks, 2010), and has become more and more common throughout Europe. The exact title and the roles of this position vary from country to country based on needs of the population and competencies and legal regulations of the nursing profession in each country. In some countries it is specifically listed as a public health job or profession.

Austria currently utilizes a Schularzt or "school physician" to meet the needs of all children, in school, throughout the school day. With the changing landscape in the Austrian school system of extending its days, it is an opportunity to explore the needs of students, teachers and parents currently in order to plan for the future. Will the school physician remain the most useful and cost-effective way to optimize care and education for students or is a new solution needed?

1.1 What is a "School Nurse"? What does a "School Nurse" do?

Several countries have a long history of employing school nurses. Holmes (2016) explains that the role of the school nurse in the United States has greatly expanded over the last century "to include critical components, such as surveillance, chronic disease management, emergency preparedness, behavioral health assessment, ongoing health education [and] extensive case management". This is a complex form of health management requiring various skills.

Holmes (2016) goes on to explain that the concrete role of the American school nurse includes but is not limited to: collaborate and coordinate care and relevant health information between parents, teachers, students and attending physician, to "understand and educate about normal development, promote health and safety and interpret medical recommendations for the education environment and also to intervene with actual and potential health problems" (Holmes, 2016). The school nurse serves as a support and preventative role to further the health and wellbeing. Furthermore, "the school nurse role is

unique because it encompasses both community health nursing and public health nursing responsibilities" (American Nurses Association, 2011, p. 20). The nurse must take into consideration not only the child as a member of the community but also the influence of the community on that child and how these aspects interact with one another shaping health outcomes. Additionally, the school nurse must make and enforce policies to support the health and wellbeing of students.

These expanded responsibilities have been shown in America (Holmes, 2016) and England (Hoekstra, 2016) to increase not only days in school for each pupil, but the benefits also trickle out into the community through education promotion and health awareness. Overall, this results in more time in the classroom and less sick days taken by the children and their guardians and early interventions due to routine health checks.

Sweden has an established system of school nurses (Kocks, 2010). The Swedish model was examined by Kocks (2010) as a possible fit for the German school system and explains that the increasing level of children who are chronically ill (close to 10%) plus the new model for full day schools in Germany increases the chance for the need of medical intervention during the school day. He further states that up to a third of school children on any given day "feel sick" – from stress, small injuries to actual illness. They could benefit from intervention, which would allow treatment for these small ailments and a swift return to the classroom and allow more focus by the student. Furthermore, due to the requirement for school-aged children to be in school, it is a chance for intervention and preventative medicine (Kocks, 2010) as there are records of the children, when and where they are attending school. Thus, a record can follow them and be easily checked for example interventions and preventative medicine such as vaccines, eye examinations and developmental checkups.

Kocks (2010) also refers to the added benefit to the student: staying in school longer, being able to learn more and pay attention as well as early intervention to decrease length of illnesses as reasons to pursue the model of a school nurse. Additionally, he outlines the duties of the Swedish school nurse (on which his model is based) similarly to role the American model of a "school nurse". He makes the argument that this could be a model in which to

base a solution on, however this model needs to be corrected and adjusted for the needs of the children in Germany and the legally allowed duties of a nurse.

Similarly, in Austria there is not currently a school nurse program or widespread use of a nurse within the school. Any model taken from outside the country would need to be adapted. This project seeks to explore the current situation in schools in Austria, the needs of the parents and teachers in those schools and explore through expert testimony if the "school nurse" or something similar could be a solution for Austria.

1.2 Professional History

School nurses in the United States have also established a professional group known as the National Association of School Nurses (NASN). Back in 1968 "the National Education Association established the Department of School Nurses (DSN), an association dedicated to the advancement of school nursing practice and the health of school-age children" (NASN, 2022). In 1984 the first issue of the Journal of School Nursing was published ("Journal of School Nursing", 2022). The NASN (2022) also hosts conferences and encourages professional exchange. There is even a conference for overseas school nurses, next to be hosted in Brussels.

1.3 Intersection of School Nursing and Public Health

School nursing has a long tradition with public health dating back to the 1920s (Czypionka, et al., 2011). SAGE Publications, who publish the Journal of School Nursing state that it's intended for a broad audience, not just school nurses and is a "bimonthly peer-reviewed forum for improving the health of school children and the health of the school community" (2022), referencing the role in the community that the School Nurse plays. This journal seeks to include articles from multiple disciplines to provide evidence-based practice relevant to the School Nurse.

The role of the school nurse is complex and encompasses many different facets of care from an individual level, more indicative of traditional nursing roles to planning and outreach which

spreads into the community. As an integral part of the community, the school nurse takes on a public health role. The National Health Service of England has the school nurse directly listed under public health careers stating, “School nurses are specialist community public health nurses (SCPHN) who work with school-aged children and young people and their families to improve health and wellbeing outcomes and reduce inequalities and vulnerabilities” (NHS, 2022) further stating that school nurses are “fundamental” for children. Anderson et al., (2018) explores how nurses use the Public Health Intervention Wheel, which highlighted how the interventions school nurses implement and provides them “with a language to document and communicate their expert professional practice”.

Many aspects of the Scope and Standards (American Nurses Association, 2011) of the school nurse also can be seen through a public health perspective. The role in the community, coordinating care for the students and liaising with relevant parties along with educating students and those involved in their lives and their evaluation of the school environment in general are all reflective of the public health nature of the role.

Damm (2013) argues for changing the current system by looking at the situation from a public health perspective specifically for the child: the report explains that in order to set up and plan for the future the issues and corresponding solutions need to be viewed more holistically and from the idea of public health as a whole and specifically for that of the child. The report explains that the shift in policy in 2012 towards taking a public health perspective is what has allowed for health-related protocols and policies to be introduced in schools in Austria. This is what even allows for the school nurse as a possible step moving forward for Austrian schools.

2 Background and Current Issues

2.1 Introduction

The school nurse role involves many different tasks and competencies. Bergren (2016) looked to quantify what the nurse does in a day. The participating nurses reported that it is "important to define and quantify what we do" though admitted that it is not always easy to do that, even when actively reflecting on a day. There are many concrete tasks that are quantifiable but also roles which are less easily defined involving relationship building with the student, teacher and school community. They also felt there was "unseen" work, which was often not accounted for or compensated, such as a school trip: this involves the nurse doing activities ranging from making first aid kits, to informing teachers and chaperones of relevant medical needs of students on trips and could even involve further education for adults supervising children they would not otherwise see on care of the student or warning signs for example a seizure and what to do should one occur.

Bergren (2016) was able to capture several categories of daily activities including: visits, communication, early dismissal and medication dispensing. The average nurse was seeing 43.5 students per day or about 4% of the school population. Additionally, these nurses reported an average of 17 communications per day which involved student care, planning and communication with school officials or teachers.

Furthermore, there is evidence that school nursing is cost effective. In the US, one study by Wang (2014) showed that for every $1 spent on a school nurse, $2.24 were saved for the healthcare system and economy overall. This measurement looked not only at direct costs associated with delayed healthcare or misused funds (emergency room visits when one was not needed) but also lost cost of parents who must leave work to pick their child up or teachers having to deal with issues rather than being able to hand off to a School Nurse. In Austria, Gundolf (2018) found that spending 1 EUR in a school nurse program would result in an 8-10-fold decrease in future costs per child due to many hidden costs, especially for families of chronically ill children. Compared to physicians Gundolf (2018) explained that nurses in the school setting are much less expensive and more cost effective.

Gundolf (2018) continues that school physicians do not have the correct qualifications to provide adequate care in this setting. Additionally, Gundolf (2018) explained that in Carinthia (a state in southern Austria) a study was done with current "experts" (school directors, teachers, etc.) which determined that they were in fact unable to answer questions about the health needs of school-aged children. Those interviewed agreed, however, that a school nurse could be an excellent solution to their current knowledge gap.

2.2 The Situation of School Nursing in Austria

The current situation in Austria, with the school day lengthening and the number of children with chronic illness increasing (Hutsteiner, 2020), leaves many open questions as to the future of the children during the school day and what solution would best meet these needs.

According to local media (Hutsteiner, 2020) and experts (Gundolf, 2018 and 2019) there would be a need for something similar to a school nurse in Austria. In the last several years several articles have come out explaining part of the current situation: every 6th school-aged child in Austria is chronically ill, children are currently taken out of class for interventions and the responsibility to coordinate falls on the parents (Gundolf, 2018). Many teachers feel trapped not knowing what they are legally responsible for and where to inform themselves about the needs of their children (Gundolf, 2019, Hintermeyer, 2016, Hutsteiner, 2020). Hutsteiner (2020) goes on to explain that, despite this need, there are currently no plans to change the current system or implement school nurses in education institutions in Austria.

Because there is no established profession of School Nursing nor a professional's group specific to Austria, it is difficult to get exact numbers of professionals working under in this role under this or similar titles. An online search of specific private schools shows that there are a handful of persons working under this title in Austria. Additionally, there is a very recent pilot project in the city of Vienna with School Nurses that have been placed in four schools. There are at least three private schools within the country who have someone working under the title of a school nurse or similar. The use of this role, however, remains limited.

2.2.1 Schularzt or School Physician

Currently in Austria, the care of the wellness needs of children during the school day is tasked to a "Schularzt" or school physician. According to the Federal Ministry of Education, Science and Research (Bundesministerium für Bildung, Wissenschaft und Forschung, 2022): A school physician is a general practitioner, who has completed medical school or one that has specialized in children (i.e. a pediatrician). In major cities, this task is performed by physicians who are physically present in the school in some capacity. Outside of cities, the general practitioner in the area takes over the tasks of a school physician. The school doctor is responsible for taking care of the medical needs and questions of children, which are relevant to their school attendance or are affected during the school day. They also complete a yearly exam of each child. Any additional tasks are negotiated by the school entity and the school physician.

The Department for School Doctors of the Austrian Medical Chamber (Ärztekammer, 2022) has created a document of the role of the school doctor. The document outlines many tasks that the doctor can or should do, depending on the setting or school. The focus is on preventative medicine and integration of the student into the school environment. This involves making care plans and coordinating with authorities, parents and other providers outside of school when necessary.

In order to provide a school-based solution to meeting school-aged children's needs, there need to be qualified persons in the role. In turn to place qualified persons in the role, there need to be qualified persons in the workforce. Austria, with 5.34 physicians per 1,000 inhabitants (Österreichische Ärztekammer, 2021) actually has more doctors than most European Union countries with only 3.2 (Czypionka, 2011), however schools still do not have a full-time physician on site. Czypionka (2011) points out that this needs to also be viewed in light of the fact that there is a different number of medical professions in each country (different levels of nursing, physicians, etc.) and therefore these numbers cannot be directly related to the care that patients receive, but do yield information about the pool of possible qualified persons available to support schools in providing for the needs of school-aged children.

According to Fichtenbauer (2015), current systems do not allow the "Schularzt" (school physician) enough time at each school in order fulfill medical therapies, to fully inform the teachers or coordinate care with teachers, parents and students (Gundolf, 2018). They are required to cover many schools and on particular days, this does not allow for coverage of acute illness or ongoing coordination for the school day of children with chronic illness. They are not full time in the school nor are available every day in most schools. Fichtenbauer (2015) states that the "Schularzt" is not trained for the daily needs of a student in the school: from their coordination of care or adaptations needed during the school day. For example, taking care of pumps or tubes: daily use, issues with use, etc. (Damm, 2013). They are also not employed for therapeutic intervention (Fichtenbauer, 2015). Without the ability to meet the needs of these students, they will not be able to attend school in the same way as their peers. The care of the chronically ill child is complex and requires observation and regular re-evaluation throughout the child's time in school. If the child is not adequately cared for, they cannot meet their educational goals or needs (Scharang, 2022).

2.2.2 School Nurses

Damm (2013) suggests a new role entirely in order to fill these gaps and not act as direct competition. Czypionka (2011) also discusses the need for diversification of care. School doctors start to cover the needs but fall short and are not always available. A mix of skills and workforce seems to be the most appropriate solution for both the health of the child and financially for the health system (Czypionka, 2011). Damm (2013) explains that because the nursing education in Austria is now at the university level it is poised well to fill this gap and their training covers the types of issues that come up during the school day such as acute care for minor accidents, maintenance of long-term care such as insulin pumps and coordination for students, teachers and parents for the integration of students requiring some sort of extra intervention.

Austria has 6.6 working nurses per 1,000 inhabitants matching the European average of 6,5 (Czypionka, 2011) but not enough nurses working with school-aged children according to Damm (2013) and Czypionka (2011). Therefore, the current situations in schools cannot be

simply explained as a lack of qualified professionals in the country but perhaps their distribution and use within the school system.

2.2.3 School Nurse Pilot Program in Austria

As of 2016, the "Novelle des Gesundheits- und Krankenpflegegesetzes (GuGk)" or the amendment of the law surrounding the job of the nurse in Austria created a specific role for the school nurse, which allows for the legality of the practice though it has yet to be truly implemented (Hutsteiner, 2020, Gundolf, 2018, Damm, 2016). This means that nurses would be able to, in some yet undefined capacity, work in schools with children throughout the day.

Starting April 1, 2022, Vienna launched a pilot program with six (Stadt Wien, 2022) school nurses. According to the experts interviewed[1] for a radio broadcast released in March of 2022 (Scharang, 2022) this has been a long time coming in Austria. The nurses are qualified to take care of the children during the school day and meet their needs and now they will run a pilot project and gather data to see how this new initiative could function in Vienna and eventually the whole of Austria. The nurses will be in an integrated daycare and primary school along with a few other public schools and they will be present between 20-40 hours a week, depending on how each school is set up (i.e., when and how long the children are present). Specifically mentioned by the City of Vienna (Stadt Wien, 2022) is the focus on information exchange between those caring for kids, including problem solving and advice along with work with other disciplines to coordinate care for the children. The project has been funded through EU funds for "Community Nurses", is run by the City of Vienna and will be free for the schools involved. The City of Vienna will collect and publish data after the year trial is completed (Stadt Wien, 2022).

The callers of the radio program released in March 2022, who were featured on this show asked questions about the qualifications of the nurses and why the English word (School Nurse) was being used instead of the German (Schulgesundheitspflege). The experts

[1] Michaela Bilir, Nurse, Professional Association of Pediatric Nursing, and Representative of the Austrian Children's League and Dr. Lilly Damm, general practitioner, health researcher at the Center for Public Health at the Medical University of Vienna – Research group for Child Public Health

explained that this was because it was a commonly used phrase, it is easy enough to say for students and current trends bring lot of English words into the German language. The quest of qualifications goes into the public understanding of the capabilities and role of a nurse. This could be an issue when implementing a new program, as the nurses are not as highly regarded, according to two callers and are seen as not as qualified (Scharang, 2022). The experts maintain that this is not the case, and Austrian nurses are indeed qualified enough for this job and through the pilot program and time the public will come to see this too.

2.2.4 Ganztagsschule – Full Day School

According to the Bundesministerium für Bildung, Wissenschaft und Forschung (Austrian Federal Ministry of Education, Science and Research) (2020), Austria is currently transitioning many schools from a school day which generally ends around lunch time, especially for younger students, to a school day ending in the afternoon. From Monday to Thursday the children will be provided with care until at least 16:00 and Fridays until at least 14:00. This naturally adds to the time that the student is in school and thus increasing the likelihood for the need for medical intervention – both acute and chronic or expected. It also decreases the likelihood for interventions to take place exclusively by the parents for the children before and after the school day.

2.3 Issues Facing Austrian School-aged Children

There are 1.2 million school-aged children in Austria (Kinderliga, 2022). Health and wellbeing of the school-aged child are critical for their success in the classroom. Their health cannot be separated from their ability to learn and thrive. A survey done of American school nurses (Bergen, 2016) tried to quantify the work of an American school nurse via survey, capturing things such as the fact that an average of 6.5 students per hour came to the nurse's office during a school day – for anything from medication administration to more acute illness or injury (see Table 2 for an overview).

2.3.1 Non-fatal Injuries

School-aged children are engaging in many different activities throughout the day from cutting to running and playing. All of these can result in minor injuries ranging from a papercut to skinned knees or broken legs. "Nonfatal injuries among school students can limit their mobility, increase the cost of health care, result in absence from school, and thus affect academic achievement" (ALBashtawy, et al., 2016). The school nurse can treat these injuries quickly and return the student to class. This means less time out of the classroom and through treatment, the ability to learn and not be distracted from the injuries. 33.9% of students aged 12-18 experienced at least one sort of non-fatal injury during one school year in Jordan (ALBashtawy, et al., 2016). This means that many children over the year will need some sort of health service during school hours. Epidemiological studies have shown that these statistics remain steady across countries, income status and results in similar consequences (ALBashtawy et al., 2016).

This does not account for injuries occurring outside of the school requiring follow up, such as rebandaging during school hours. This perhaps accounts for 65.6% of students in a study of students between 15-25 on their use of health services reporting the use of at least one visit during the year (Harper et al., 2016).

2.3.2 Acute Illness

Other issues which occur during school hours can be acute illness. For the school-aged child, a stomachache or fever can result in a visit to the nurse's office. The nurse can evaluate their needs and "when a school nurse is present full time, students are 57% less likely to be sent home" (Bergren, 2016). Bergren (2016) also inquired about medication distribution and the average school nurse gave out 17 medications per day. It was not clear how many of these were prescription versus over the counter. This means that having a school nurse present to assess acute illness or even injury results in the ability for the child to be treated and sent back into the classroom. Additionally, Harper et al. (2016) saw that "across 2-year period students who used a school-based health center reported greater health satisfaction, more physical activity and better nutrition". This leads to greater overall health.

2.3.3 Mental Health

Of additionally importance is the mental health and wellbeing of the school-aged child. In the United States Bohnenkamp (2015) estimated that 33% of the school nurse's time could be attributed to "addressing mental health issues". Bohnenkamp (2015) also explains that although mental health issues effect as many as 20% of children, "fewer than half children identified with a mental health disorder receive mental health services". Unfortunately, there is a student dropout rate among those with mental health issues of up to 50 % (Bohnenkamp, 2015, Browne et al. 2012). Browne (2012) also explained that when intervention occurs, there are statistically significant improvement for students, across various factors including grades, home situation and behavioral problems.

Nurses often serve as coordinators of care, however, they are often not recognized as part of the mental health team within schools (Bohnenkamp, 2015) even though school provides a great space for the child, as they are there every day and the nurse can observe and easily contact them. In addition to knowing the school community and its resources, the school nurse is "knowledgeable about existing community resources and possess keen health assessment skills that can be used to identify both physical and mental health concerns" (Bohnenkamp, 2015).

2.3.4 Young Carers

In Austria, one current field of research is on "Young Carers" (YC), minors who are caring for a family member in a care giving capacity. Frech (2021) explored how able healthcare professionals can support YC in Switzerland. Around half of healthcare professionals were familiar with the term and reported being able to support YC in their work. The type of support varied.

Nagl-Cupal & Hauprich (2018) looked at the needs of the YC. They found that these YC want to be recognized but allowed to work through their family needs in the way that works for them. In addition, they wanted to be able to discuss their situations. In this sense the school nurse could provide a resource to these children by, for example, assisting them in finding resources as they need them and listen to their needs or referring them to a school or other

counselor. In addition to coordinating resources and connecting students to the support they may need, the nurse's office can also be used as a safe place for students to come in a time of need.

2.3.5 Chronically Ill Children of Austria

According to Gundolf (2018) and Fichtenbauer (2015) 109,000 out of 1.2 million school-aged children in Austria have a chronic illness and the legal right to equal access to school. Die Kinderliga (2022) calculates with 197,000 of 1.2 million school-aged children. Additionally, 13.5-20% of children have a diagnosed illness (Fichtenbauer, 2015) which leads to some sort of need for medical or therapeutic intervention or support throughout the school day. Damm (2013) notes that while a lot of these students are included in regular schools, the schools lack the resources to appropriately care for the children.

Nurses have been specifically trained in the care need of patients for the day-to-day issues, maintenance and care which may arise (Gundolf, 2018). Some of the chronic illnesses, which Austrian students are diagnosed with, include asthma, epilepsy, diabetes, cystic fibrosis, juvenile rheumatoid arthritis and other genetic disorders. This does not include any children which require a pump, shunt, or other devices nor those diagnosed with cancer (Die Kinderliga, 2022).

The following table shows the frequency in which these chronic illnesses are found in Austrian school-aged children. For example, of the 1.2 million school-aged children (Kinderliga, 2022), 10.7%, 128,400 or 1 in 10 students are attending school with seasonal allergies.

Table 1: Chronic Illness with Frequency for School-aged Children in Austria

Chronic Illness	**Frequency**	**Publication**
Seasonal allergies	10.7%	Damm et. al, 2013
Neurodermitis	13.2%	
Asthma	4.7%	
Epilepsy	3.6%	
Diabetes	0.14%	
Scoliosis	5.2%	
Anemia	2.4%	
Cystic fibrosis	22-25 infants / year	Medical University of Vienna, 2022
Juvenile Rheumatoid Arthritis	2,000 children	Pfizer, 2022

The Austrian Parliament (2014) published a citizens' initiative in which it was stated that in the whole of Austria, chronically ill children have the same rights as all other children and should not experience any discrimination or disadvantages due to their illness. Therefore, these children are required to have the support they need to have continued, equal access to education. This means specifically right to integration in schools of their peers and not only being sent to schools for children with disabilities. This initiative, however, does not outline how this goal should be achieved. Without being able to meet the needs of these students, they will be unable to attend a school without special services. The care is complex and requires staff in the school trained for and assigned to the wellbeing and qualifications to do so.

The following table summarizes some of the daily issues addressed in the school nurse's office with school-aged children. Because it has been gathered across studies, countries and population type it has been used here to build a generalized picture of the student population in Austria and the issues that may exist but may not be currently captured or addressed due to the lack of continuity of care for these students during the school day.

Table 2: Overview of Literature Regarding the Daily Issues in the Nurse's Office

Issue	Frequency	Country	Publication	Notes
general traffic in the nurse's office	6.5 students / hour 43.5 students / day	USA	Bergen, 2016	
individual visits to nurse's office	1+ visits / student / year	USA	Harper et al., 2016	65% of 15-25 year olds had at least 1 visit
ability to return to class (after assessment)	57% more likely with a nurse	USA	Bergren, 2016	Post intervention or evaluation students return rather than seeking help outside of school
medication	17 / day	USA	Bergen, 2016	
non-fatal injury	1+ / year	Jordan	ALBashtawy, et. al 2016	33.9% of students aged 12-18
mental health issues	- 33% of nurse's time - up to 20% of children are affected - 50% more likely to drop out of school	USA	Bohnenkamp, 2015	
Young Carers	3.5% 12.5 years old mostly female	Austria	Nagl-Cupal & Hauprich, 2018	minors caring for adult persons
chronic illness	109,000 – 197,000 children or 9 – 16.4%	Austria	Gundolf, 2018 & Fichtenbauer, 2015 Die Kinderliga, 2022	of 1.2 million school-aged children
ailment diagnosed by a physician	13.5-20% of students	Austria	Fichtenbauer, 2015	illness needing intervention during school

2.4 Experiences of Teachers and Parents

In addition to the concrete roles and competencies of the school nurse, the experience of the teachers and parents within this system are also important to understand. They are also a large part of the team making decisions and supporting the child and school community as a whole. How they are experiencing the current school health system in Austria is important in order to understand what the needs and gaps actually are. By forming a clear picture of their needs and experiences that are not explicitly linked to the care of the child, the nurse can better understand how to serve them. Additionally, it can allow for anticipation of how the set up and implementation of any new systems may go and what kind of additional or different needs the Austrian system may have when compared to already established school nurse systems in other countries.

2.4.1 What the Teachers Say

Austrian teachers feel as though they are not well enough informed or not given correct or timely information about the needs of their students nor how to help them (Gundolf, 2018). They also are not sure where their legal responsibility lies for the ill child while also fulfilling educational needs of the rest of the classroom. Acute first aid is generally delegated within the school to one person; however, care of the chronically ill child as well as the acutely ill child leaves the teachers feeling unsure of their responsibilities. The requirement to obtain knowledge about their children's' medical needs is left to the teachers in Austrian schools without the time to do so or references of where to gather the correct information. Additionally, who is responsible for care can also be unclear (Gundolf, 2018). They are left stuck in the middle between caring for their classroom as a whole and tending to the acute or chronic needs of the ill child (Fichtenbauer, 2015). In schools with a school nurse, these tasks are clearly taken over by the school nurse.

2.4.2 How the Parents Feel

Little information is published about the viewpoints of the parents of school-aged children and how they view the situation. It is therefore poorly understood what their needs are or what gaps in care are occurring.

2.5 COVID as an Extenuating Circumstance for Children, Teachers and Parents

The collection and processing of data in this work was done during the COVID-19 global pandemic and thus issues cannot be addressed without seeing things through this lens. The pandemic has influenced the way children are attending school and what the parents experienced as far as their children's health during the school day. It is a particularly relevant topic currently for parents and teachers. Media reports (Hutsteiner, 2020) in Austria also have mentioned how the pandemic has highlighted the need for change in the current system and that perhaps the school nurse would be an applicable model.

There are many studies coming out now about the effects of the pandemic on various aspects of life including that of the school nurse and school-aged children. Cook et. al (2022) performed a literature review to assess "how school nurse practice has evolved as a result of the Covid-19 pandemic". Their search was kept broad, as the empirical data is still being generated and published. Their findings, however, were able to show that COVID created two aspects of the job: continuing the normal care of the students and adapting to new and changing needs based on the pandemic. The pandemic required lots of adaptation and flexibility to continue providing care. This reflected the role of the school nurse and the need for innovation and integration of all skills and knowledge to optimize care.

2.6 Defining the Role

The assessment of the needs of the parents and teachers provides a picture for what role would be needed to meet those needs. The *School Nursing: Scope and Standards of Practice, Second Edition* written by the National Association of School Nurses and the American Nurses Association (2011) states that a full understanding of these needs is necessary "to provide a complete picture of the dynamic and complex practice of school nursing and its evolving boundaries and membership" (American Nurses Association, 2011, p. 4) and because of this complex nature of the job and the needs of the individual students, teachers and school, "the depth and breadth in which individual school nurses engage in the total scope of school nursing practice depend[s] on education, experience, role, work environment, and the

population served" (American Nurses Association, 2011, p. 4). This allows for flexibility in the role not only for each school but also within school systems and countries. This means that the role can be adapted and changed based on laws, needs and resources in each area. This great flexibility means that the school nurse is particularly poised to be the solution for a variety of problems, situations and needs of the school-aged child.

2.7 Scope and Standards of Practice for School Nurses

The scopes and standards developed by the National Association of School Nurses (NASN) within the American Nurses Association contains different levels of nursing and provides explanations from base level of what the role entails through the specific details for advances practice nurses (American Nurses Association, 2011). Subsequent editions (3rd and 4th, published during the writing of this paper) have left the Scope and Standards of Practice largely unchanged while the Professional Performance standards have been renamed and, in some cases, reworked (Yonkaitis & Reiner 2022). The addition of advocacy has been pulled out of other categories in order to address its current relevance. Additionally, the environmental health section was reworked to reflect the changes brought about by COVID-19 but has not fundamentally changed the role described in the 2nd edition (Yonkaitis & Reiner 2022). Program Management was folded into other standards in later editions but is specifically relevant in this work and thus has been addressed individually.

For the purposes of this research, focus will be placed on the base descriptions of these competencies as described in the 2nd edition. This is in order to make transferability more likely and to ensure that the exploration is applicable within Austria and their legal framework for nurses. Advancements can be integrated as competencies and the law allow. The following sections explore various key aspects of the role at the base level as designed for school nursing practice in the United States.

2.7.1 Assessment

"The school nurse collects comprehensive data pertinent to the healthcare consumer's health and/or situation" (American Nurses Association, 2011, p. 12). A key aspect of understanding

the needs of the school-aged child involves understanding their current situation. In order to do so, the nurse needs to assess the history of the patient and tease out important information. This involves having a comprehensive understanding of the health and development of the school-aged child to quickly determine what information is relevant. These "evidence-based assessment techniques and instruments" (American Nurses Association, 2011, p. 32) go beyond the understanding held by a teacher and involves further education on the part of the nurse to stay on top of current information and trends.

2.7.2 Diagnosis

Using this assessment data, "the school nurse analyzes the assessment data to determine the diagnoses or issues" (American Nurses Association, 2011, p. 12). This is applicable for the individual student but also for the school population. Furthermore, the school nurse "explains and interprets the diagnoses or issues to the student in family" (American Nurses Association, 2011, p. 34). This requires not only both specialized knowledge of the diagnoses and the implications but also the understanding of the local health system and resources going beyond the average teacher's understanding. The school nurse is also there to help guide the family through diagnoses received outside of school, "interpret[ing] various forms of data… [and] analysis on current research and knowledge of clinical diagnoses" (American Nurses Association, 2011, p. 34). The serve as a partner in the process.

2.7.3 Outcomes Identification

With an understanding of the student or school population's needs and diagnoses, "the school nurse identifies expected outcomes for a plan individualized to the healthcare consumer or the situation" (American Nurses Association, 2011, p. 12). The nurse is at the center of this planning for the student and school population, continually reviewing the plan and making adjustments as needed, while "document[ing] expected outcomes as measurable goals" (American Nurses Association, 2011, p. 36).

2.7.4 Planning

"The school nurse develops a plan that prescribes strategies and alternatives to attain expected outcomes" (American Nurses Association, 2011, p. 12). This requires a relationship with the child to include their "values, beliefs, spiritual and health practices, preferences, choices" (American Nurses Association, 2011, p. 38) etc. This also involves including other adults (teachers, parents, carers, counselors) as needed in the plan, considering and adjusting timelines, using "current scientific evidence, trends and research" (American Nurses Association, 2011, p. 38). The nurse is at the core of this team coordinating the details as needed to reach expected outcomes.

2.7.5 Implementation

After the planning is complete, there also needs to be follow through: "the school nurse implements the identified plan" (American Nurses Association, 2011, p. 12). Particularly, the nurse serves as an "advocate for health care that is sensitive to the needs of healthcare consumers … uses community resources and system to implement the plan … [and] accommodates different styles of communication used by healthcare consumers, family and healthcare providers" (American Nurses Association, 2011, p. 40).

The following subsections are considered aspects of implementation for the school nurse that should specifically be more closely examined.

2.7.5.1 Coordination of Care

"The school nurse coordinates care delivery" (American Nurses Association, 2011, p. 43). The nurse is at the center of the care of the school-aged child within the school. Being present in the school on a daily basis allows for the collection and distribution of data and contact to all involved in the care. Coordination also covers "document[ing] coordination of care, edcuat[ing] colleagues regarding implementation of the plan [and] incorporate[ing] the individualized healthcare plan into the student's educational day and after-school activities" (American Nurses Association, 2011, p. 43). This requires the nurse as a visible and physical presence in the school in order to complete these tasks.

2.7.5.2 Health Teaching and Health Promotion

Another important aspect of school health is health education. "The school nurse employs strategies to promote health and a safe environment, especially regarding health education" (American Nurses Association, 2011, p. 12). This can range from educating the student and their guardians about new diagnoses and clarifying questions to "provid[ing] general health education to the student body at large through classroom instruction" (American Nurses Association, 2011, p. 44). This means coordination with teacher and anticipation of the needs of the school population as a whole in order to meet these needs through preemptive and reactive education of students, parents, staff and others involved with the child.

2.7.5.3 Consultation

As questions arise from involved parties, "the school nurse provides consultation to influence the identified plan, enhance the abilities of others, and effect change" (American Nurses Association, 2011, p. 12). The nurse must also seek outside consultation "with other health care providers … to assure implementation of the plan" (American Nurses Association, 2011, p. 46) in the case that existing knowledge needs to be supplemented. The school nurse must also know where to pull resources.

2.7.5.4 Prescriptive Authority and Treatment

"The advance practice registered nurse uses prescriptive authority, procedures, referrals, treatments, and therapies in accordance with state and federal laws and regulations" (American Nurses Association, 2011, p. 13). This section is almost exclusive to those with prescriptive authority, which nurses in Austria currently do not have. However, the use and distribution of prescribed medicines and products is a part of the daily lives of some students and comes up regularly during acute illness and thus needs to be taken into consideration when reviewing care of the school-aged child. This would be an example of where coordination with a school physician could become critical, as they would have the prescriptive authority and could delegate medication duties to the nurses.

2.7.6 Evaluation

An ongoing process, “the school nurse evaluates progress towards attainment of outcomes” (American Nurses Association, 2011, p. 13). This requires a systematic approach that is ongoing in nature and of course requires documentation and for issues to be addressed as they come up. The whole process is cyclical and continual with many aspects overlapping.

2.7.7 Ethics and Professional Performance

In addition to concrete competencies, the school nurse is also expected to maintain some basics of professionalism which enhance performance of more strictly nursing based tasks. From this section, the competencies are classified as relating to professional performance for school nurses. “School nurses are accountable for their professional actions to themselves, their healthcare consumers, the profession, and, ultimately, to society” (American Nurses Association, 2011, p. 13). Nurses are expected to act in an ethical matter. This ranges from protecting the rights of the patient and their autonomy to protecting confidentiality to making sure the patients are fully informed when making decisions (American Nurses Association, 2011, p. 50-51).

2.7.8 Education

In order to be effective at the job of educating others and understanding needs of students and resources available and best practice, the nurse must “attain knowledge and competenc[ies] that reflect current nursing practice” (American Nurses Association, 2011, p. 13). This means that the nurses’ education is never really done. Austria requires nurses to complete 60 hours of continuing education every 5 (AK Oberösterreich, 2022) years but beyond that the nurse must be willing and able to find and understand educational materials relevant to the ever-changing school population. As advancements are made in treatment or access to treatment changes, the nurse needs to remain a resource to the community by staying current on these topics and be knowledgeable about where and when to find reliable resources and continually education oneself.

2.7.9 Evidence Based Practice and Research

"The school nurse integrates evidence and research findings into nursing practice," (American Nurses Association, 2011, p. 55). This aspect encompassed not only keeping up on current practice but also incorporating current knowledge into practice, sharing information with colleagues and the community and participating in research while complying to correct research practice and collaborating with those outside of the educational system and using all of this to inform and shape policy within the school (American Nurses Association, 2011, p. 55-56).

2.7.10 Quality of Practice

This section focuses on how the nursing process effects the school community: the nurse should use creativity in the nursing process to improve activities such as critically looking at current practices and finding ways to improve, ensuring that the evaluation guidelines are created and followed and identify and improve daily issues. This also encompasses being a part of interdisciplinary teams to improve the school, minimize costs and improve health and safety (American Nurses Association, 2011, p. 56-57).

2.7.11 Communication

As mentioned in several sections, the nurse is serving as the center of the team and a resource for many others. In order to effectives plan, implement and educate others communication skills are an important resource. "The school nurse communicates effectively in a variety of formats in all areas of nursing practice" (American Nurses Association, 2011, p. 13). Particularly notable is the requirement to be understood in multiple formats. Sometimes the nurse will be composing written correspondence, talking face to face with students and parents or standing in front of a group giving a lecture. All these tasks require different skills in order to be effective and it is the job of the nurse to master these skills.

2.7.12 Leadership

This section focuses on demonstrating leadership in a professional setting. This involves self-reflection on one's own practice, giving feedback to others, using conflict resolution skills,

treating others with respect and dignity, and participating in professional groups and organizations within and outside of the school (American Nurses Association, 2011, p. 60-61).

2.7.13 Collaboration

Going hand in hand with this centralized role and communicating is collaboration. "The school nurse collaborates with the healthcare consumer, family and others in the conduct of nursing practice" (American Nurses Association, 2011, p. 14). This skill is particularly relevant with "conflict management to facilitate engagement and consensus of strategic partners" (American Nurses Association, 2011, p. 62). The ultimate goal is the health and wellbeing of the school-aged child and in order to meet this goal, all partners need to be able to reach an understanding and work together. As with anything involving many people, conflict can occur and the nurse's central role in coordination of care also results in the management of conflict and conflict resolution in order to move forward. Additionally, the nurse "engages in teamwork and team-building process" (American Nurses Association, 2011, p. 63). This can help prevent conflict and ensure continuity of care. This is also where the nurse's role as an "advocate" for the child or "healthcare consumer" (American Nurses Association, 2011, p. 63) is explored. As the child is the "patient" or central consumer in the case of school-based healthcare, the nurse serves, as in the more traditional roles seen in hospitals" as an advocate for the child and their needs.

The role of the nurse as outlined requires time and proper education. The school nurse must be prepared for many different situations and be highly adaptable. Additionally, the school nurse must be present in the school in order to complete these tasks, particularly being able to build relationships with the school community. This simply cannot be done on a severely minimized schedule.

2.7.14 Professional Practice Evaluation

The school nurse should participate in self-evaluation in relation to professional practice and standards. This includes getting feedback from peers, looking for ways to improve practice

through self-evaluation and networking to expand exposure to professional practice and the ability to critically look at ways to improve (American Nurses Association, 2011, p. 64-65).

2.7.15 Resource Utilization

In line with the holistic approach of the other standards, resource utilization focuses on using the right resources in the correct way at the appropriate time with minimum waste. This means understanding through education and reflection which interventions are appropriate, which supplies are needed and how to implement them. This also involves constant reevaluation of practices exploring cost, risks and how the population is affected (American Nurses Association, 2011 p. 66-67).

2.7.16 Environmental Health

The school nurse is to maintain a healthy community through a healthy mental and physical environment. This involves following media and current trends within the community and knowing what actions to take to mitigate negative consequences, communicating about risk and exposure reduction, creating partnerships and strategies with different stakeholders in the community to promote policies to reduce harm and advocate for the need for environmental health principals within the school (American Nurses Association, 2011, p. 68-69).

2.7.17 Program Management

This is a more global look at things from a managerial perspective. This means managing assistants and aids or other personnel helping in the health office, understanding the needs of the school community and adapting the program(s) as necessary, communication within and outside of the community to keep things running, finding funding sources and manages cooperation within the school community and with the wider public (American Nurses Association, 2011, p. 70-71).

2.8 Conclusion

1.2 million children are of school age in Austria. They have complex needs ranging from seasonal allergies to diabetes to accidents to getting sick regularly. They are currently being cared for by part time physicians and when these are not available, the teachers must call the parents or send the child home as they are not trained or legally able to go beyond basic first aid.

While the rights of the child are clearly defined and the ability for the nurse to work in schools has been established, a true understanding of the needs of teachers and parents of children in schools in Austria, which have school physicians, is not clearly understood. This would be the critical next step before considering any revisions to the current system. The research reflects that there are still unmet needs of school-aged children in Austria during the school day. These needs are most acutely experienced by the student, parents and teachers and thus they could thus best speak to what their needs are and where they, personally, could use support. This work will focus on the needs of the parents and teachers because addressing the children requires additional permissions and considerations due to their vulnerable status. This vast topic could perhaps be best addressed on its own, as the children would likely have substantial insight to their own needs and experiences throughout the school day, as they are the ones experiencing it.

Finally, there are currently only a very few individuals working in this role in Austria. The few which are working in this role or alongside persons in this role, would provide insight useful to understand if these needs of the parents and teachers are being met, in their current state and situation. They may also be able to provide examples of what this role could or should look like in the future based on the benefits to the students and struggles they have experienced up until now.

While teacher's and parent's experiences are critically important there is little international, and particularly also national, research focusing on their needs. This could partially be attributed to the fact that where there is an established, functioning system of the school nurse, these experiences are not gathered or researched through the lens that this paper is

trying to produce. Additionally, as the role is newly emerging in Austria, the issues, experiences and what even needs to be examined is still in its infancy. Looking into this critical aspect will provide a framework for approaching the issue.

3 Research Objective and Research Question

The school-aged child has the legal right and obligation to attend school regularly and be provided with the same access to education regardless of their medical status or situation. In order for all children to attend school and receive the legally promised education requires an understanding of how to best serve the child. Therefore, a closer examination of the needs of the stakeholders is needed and a comparison to known models to find a solution.

The experience and needs of teachers in supporting the child throughout the school day has yet to be examined in Austria. Additionally, the viewpoints of the parents on the needs of their child and their own needs to support their child has also not been explored. Both groups have a major role in the health, wellbeing, and education of the school-aged child. While the school-aged children are an integral part of the picture, assessing the needs of minors goes beyond the boundaries of this work, however, would be a critical future research area.

3.1 Objective

The goal of this work is twofold:

1. To explore how teachers and parents experience the health needs of school-aged children based on their unique situations, combined with the insights of health experts
2. To assess if these specific needs determined from the experiences can be fulfilled by a school nurse

3.2 Research Question

Therefore, the research questions to be answered are as follows:

1. What are the needs based on the experiences of parents, teachers and the insights of health experts in Austria regarding the health care of the school-age children they are responsible for?
2. How and what could the “School Nurse” model contribute to fulfill these needs in Austria?

4 Methods

This study consists of 13 qualitative, semi-structured 1-1 expert interviews in German or English (see Appendix) allowing for "control over the line of questioning" (Creswell, 2003) with a "descriptive, analytical framework" (Patton, p. 376). The intention was to capture the experiences of each interviewee by guiding their answers but without overly restricting their answers (Patton, p. 376). Each interview was conducted in German or English, depending on the preference of the interview partner and lasted an average of 24 minutes and 58 seconds. Interviewees were asked the same questions, with the interview guide but we are also given plenty of time to answer the questions.

4.1 Design

Semi-structured interviews with 3 health experts (1 school nurse, 1 pediatrician, 1 government official) in the field of "School Nursing" or care of school-aged children in Austria were completed. The semi-structured form allowed for similar information to be collected from each partner and help guide the narrative (Patton, 2002, p. 343) towards their experience and keeping to role of the school nurse and in which ways it is currently being practiced.

5 parents and 5 teachers were interviewed in a similar manner. The interviews were slightly structured with an "interview guide" (Patton, 2002, p. 343) where participants were encouraged to speak freely about their experiences within the context provided (Stewart, 2007). Most interviewees were speaking on a topic for which they did not have any direct experience – having a school nurse. Thus, the structure to the interviews provided clarity to the interviewees about what kind of information would be helpful and relevant to the research. Some asked additionally questions about the role of a school nurse and expectations for the interview and were thankful for the structure, as they stated that it gave them a guide to what would be most helpful to know. Additional input only came as needed to keep the conversation going or to clarify any points raised.

Table 3: Overview of Interviewees

Characteristics	In Total	
Interviewees	13 Interviewees	3 Experts 5 Parents 5 Teachers
Age (in years)	Total average: 40.8	
Gender	9 Female 4 Male	
Language	6 English 7 German	
Form of Interview	5 in person 4 per Zoom (digital with video) 4 telephone	
Average length of the Interview (in minutes)	24:58 (mm:ss)	

4.2 Sampling

Care was taken to form an understanding for various types of children (through the experience of their parents) and teachers with different backgrounds and student populations, a variety of participants were purposely selected (Creswell, 2003). After initial contacts via word of mouth, parents and teachers were also asked per the snowball method (Zach, 2020) to consider recruiting friends and colleagues to participate in an interview. The snowball method brought in new interview partners, however care was taken to find a range of interview partners until private and public schools were included; until different age groups could be represented; and particularly a parent of a child with special needs was included. This allowed for varied backgrounds of the teachers and parents.

4.2.1 Parents and Teachers

The sample included public schools, private schools and schools throughout Austria. While the majority were located in and around Vienna, two schools located outside of Vienna also gave similar results, allowing for more generalization.

This sample is by no means exhaustive. None of the parents were sending their children to the same school and none of the teachers worked at the same school, meaning that several schools are represented. The homogeneity of the results makes it likely that the results are generalizable, at least for urban areas in Austria.

4.2.2 Experts

The expert sample represented the perspective from three integral players: a school nurse, a school physician and a coordinator in school policy. Recruitment of experts included soliciting participants from school nurses currently employed in Austria, as well as physicians involved in schools. Three school nurses in Vienna were contacted on several occasions per e-mail and telephone. One consented to be interviewed. Then through the snowball method (Zach, 2020), this nurse attempted to contact more experts in the field but was unable to receive an answer. She was, however, able to suggest a pediatrician that worked with a school. This pediatrician was interviewed about how it was to work with patients attending a school with a school nurse and those attending more traditional schools without a school nurse.

The Coordinator of School Physicians was found through the Federal Ministry of Education, Science and Research (Bundesministerium für Bildung, Wissenschaft und Forschung) website. Five school physicians were contacted and none agreed to an interview. The coordinator was unable to provide a recommendation as to school physicians who would agree to an interview.

Defining Teacher, Parent and Expert

4.2.2.1 Teacher

A teacher was defined as someone holding a teaching degree and currently working in a classroom with children in Austria. The intent was to best capture the current situation within the classroom, so anyone who was not actively teaching or working with students was not approached for an interview (i.e., administrative staff).

4.2.2.2 Parent

A parent was considered to be anyone who was legally in charge of the decision making regarding a minor attending an Austrian school and living in a shared space with the student

and who was able to speak about their child's experience in school. There was no distinction made between types of custody, number of children or the parent's nationality.

4.2.2.3 Expert

A school nurse expert was defined as someone who is trained as a nurse and working under the designation "School Nurse" or similar duties within Austria. Experts who had particular insight on the subject from an academic or professional standpoint were also included to increase the information gleaned, as the field of experts is relatively limited because this job is not widely spread or being practiced in Austria.

4.3 COVID

Due to the COVID situation at the time of data collection, interviews were conducted both in person and through digital means. Due to changing regulations and the comfort levels of exposure for the interview partners, in some cases digital means was chosen over face-to-face interviews. Although this limited face-to-face interviews, this could have allowed the parents more freedom to speak more openly, without fear of being overheard in a coffee house or other setting. Most interview partners spoke, regardless of where they were interviewed, about the same general concepts and gave similar answers regardless of gender, background, school, time of day or location of the interview.

4.4 Interviews – Demographics

In total 13 interviews were organized, and 14 total people were interviewed as one parent's 10-year-old child was home during the time of the interview and continued to comment in the background. Ultimately their parent invited them to join the conversation, and both gave permission for their voice to be recorded and used during the analysis.

Of the adults interviewed, 9 identified as female and 4 as male. The average age of the participants was 40.8 years. The eldest was 64 and the youngest was 32. 9 interviewees held Austrian citizenship, one dual citizenship with America, two Americans and one from England.

Due to ever changing pandemic restrictions and interviewees preferences, 5 interviews were conducted in person in coffee shops, 4 per telephone without video while interviewees were at home and 4 with Zoom – 2 participants were in their office and 2 were at home. The average interview length was nearly 25 minutes (24:58) ranging from 11:54 to 1:14:41. Each participant was asked to choose the language of the interview: 6 interviews were conducted in English and 7 in German.

4.4.1 Teachers

For the project 5 teachers working in Austria were interviewed. They all had at least a bachelor's and two had a master's degree in education with an average of 10 years of experience. 3 schools were public and 2 private averaging 526 students and they taught between 16 and 40 students per day on average. All schools were in major cities or within suburbs of major cities within Austria. None were further geographically isolated. Only one teacher had ever worked with a school nurse.

The teachers all had at least several years of teaching experience and most in different schools, giving them the ability to generalize and pull various examples from different contexts. This also helps support the findings as being likely more generally applicable as they are not coming from a singular time, place or circumstance.

The teachers were nearly all exclusively teaching in the elementary setting and only one teacher identified as male. Although all findings were consistent across genders and school setting, a larger sample would be beneficial in order to determine the needs in higher level education. There could be specific needs that require more or less emphasis depending on the age of the students being served.

4.4.2 Parents

5 parents were interviewed: 3 mothers and 2 fathers. They all had 1 or 2 children, averaging 1.6 children. The children averaged 7.37 years of age ranging from 5-11. All children attended public school, however 1 child attended a specialized public school for additional needs. Only

one child had already completed primary school and had entered a secondary school. The parents had all completed varying levels of academic degrees: medical degree, master's degree and PhD.

The parents were nearly evenly split by gender. According to both teachers and students, the schools generally do not have many children with chronic illness so while these parents as a group be representative of the general population, they do not capture more specific needs but rather general needs of otherwise healthy student throughout the school year. The parents were both Austrian and foreign nationals, reflective of the make-up of Austria as a whole, where 17.7% (Statistik Austria, 2022) of inhabitants hold passports from other countries.

4.4.3 Experts

3 different experts were interviewed: a civil servant working within the national government regulating and planning the school physicians' program and student health, a pediatrician who occasionally works in schools and a school nurse currently working within Austria. 2 identified as female and one as male. Their experience varied greatly ranging from 2-26 years in their relevant roles – averaging 16.7 years.

Each expert had their own specialty and thus no direct comparison could be made between their specific professions, however between each other they supported the idea that there were unmet needs of school-aged children in Austria and a nurse could provide a solution. They were also more able to specifically speak to the scopes of practice and give concrete examples of when this role could be most useful. Their comments and views helped put the parents and teachers needs into context and organize based on the scopes of practice of a school nurse.

Table 4: Characteristics of the Interviewees by Group

Experts	
Education	Masters, MD, PhD
Average Years of Experience	16.17
Parents	
Number of Children	2 children – 60% 1 child – 40%
	Average age: 7.4 years
Type of School	Middle School – 1 Elementary – 4
	All public schools
Teachers	
Education	Masters – 2 Bachelors – 3
Average Years of Experience	10
Type of School	Private – 2 Public – 3
	Elementary – 4 Secondary – 1
	Average number of students: 526.6

4.5 Inclusion and Exclusion Criteria

For the experts, teachers and parents to communicate with one another and the researcher, the interviewees were required to be fluent in German and/or English. Before the start of the interview the language of the interview was discussed again to confirm that all participants feel comfortable participating. They were also informed that the interview could be stopped at any time. No interviews had to be stopped early.

Participants of all ages, genders and backgrounds were encouraged to participate and none will be excluded based on these factors. (See Table 4: Characteristics of the Interviewees by Group)

4.6 Ethics

Before the interview began, each participant was contacted to discuss how the process would go and to set up a time, place and language of choice for the interview. They were sent a digital copy of the consent form (see Appendix) in advance. The consent form also included some demographic information. Most consent forms and demographic data were returned digitally, some were signed in person at the time of the interview. Each participant gave individual consent to share their experience and no further approval, outside of the university framework for theses was obtained.

During the interviews, the parents or teachers shared personal information about themselves, their jobs and their children. At the beginning of the interview, it was made clear that all research would be held privately without correlating information and only to be utilized for the purposes of this research and no other. Both interviewee and interviewer were aware that all information shall be pseudonymized. Experts were informed that while there will be an attempt to conceal their identity their identity may become evident based on their testimony regardless of any attempt to take out correlating information as the pool of experts in this field is limited.

While there were no anticipated negative outcomes from participating in these interviews, had any participants have any, they would have been encouraged to ask questions of the researcher or seek psychological intervention where appropriate.

Participants were allowed to leave the interview at any time and withdraw their signed informed consent at any time without any disadvantage to themselves.

Children in this case were not contacted for an interview due to their vulnerable status. In one interview a child was present during the interview. Although the interviewer did not ask

the child any questions, the child provided unsolicited responses to several questions. The child gave assent and the parent consent for the conversation to be further recorded. Because the child was able to answer questions that the parent was not, for example that there was in fact a school physician at the school, the interview answers were used to supplement the parent's answers but were not directly used in quotes or for further analysis.

4.7 Data Collection

All interviews were conducted between May-November 2021 in the interviewee's language of choice either German or English. They were digitally recorded, securely saved and uploaded to the researcher's computer. No video was recorded and this was clearly stated to each participant. No other access was given to outside persons or sources. These audio files were then used in the transcription process.

All participants also filled out basic demographic information at the time of their written consent. This information was then manually entered into Microsoft Excel version 16.54 for data processing and visualization.

4.8 Data Processing and Analysis

The interview guides (Patton, p. 376) allowed for a "cross case analysis" (Patton, p. 376) of the interviews into these categories, comparing answers to produce a comprehensive representation in each category. This resulted in the interviews providing a lot of overlap of topics and themes. Thus, the codes and categories were supported by information from multiple, if not all, interview partners. The results were comparable and consistent. Additionally, the "Scopes and Standards of Practice" (American Nurses Association, 2011), which were used to guide the interview process, also provided some categories for analysis. This structural combination ensured that the results are both comprehensive and generalizable as the information will be used from each interview partner to fill the categories.

The interviews were transcribed verbatim in the language the interview was conducted in with f4transkript (2020) for analysis. Transcription was done manually from the author and not through transcription software according to Kallmeyer & Schütze (1976) rules and formatting.

The interviews were then uploaded in MAXQDA2022 for initial, open coding based on Polit (2012). Lines were given codes based on their content, the meaning of the quote or passage or to summarize a phrase. These codes were then grouped into categories. This process can be captured in two major steps.

4.8.1 Step 1: Capturing the Experience

First the interviews were analyzed for the experiences of each participant – how did they experience what was happening in the schools and around the care of the children. With a focus on their experience codes were issued. This inductive coding method generated results reflective of the first research question. These experiences also captured the relationship with the school physician and the influence that COVID played in the lives of school-aged children. These codes and quotes were grouped into categories that best grouped them together.

4.8.2 Step 2: Determination of Needs and comparison to Scope and Standards of Practice

The interviews were then deductively analyzed to answer the second part of the research question: determining if the identified needs, based on the experiences, were needs that could be covered by a school nurse. After coding the interviews with a focus on unmet needs or other issues that did not fit into the first step of experience, the categories created by the codes were then compared with the “Scopes and Practice” (American Nurses Association, 2011). The comprehensive nature of the interviews, the consistency of results across all interview partner groups and within the group, resulted in codes and subsequent categories that could nearly exclusively be accounted for within the Scopes and Practice of School Nursing (American Nurses Association, 2011).

In both steps, all codes and subsequent categories were issued in English, even for the German interviews, this allowed for consistent classification and homogenous grouping into categories and ultimately eased the presentation of the results. The information gleaned for each category helped determine the extent to which the categories were covered by the school nurse model and therefore if this was a viable solution for Austrian schools. Most results covered expected topics and categories covering the duties and responsibilities of the school nurse plus the four additional topics of interest which should be taken into consideration for a full understanding of the situation. German interview passages were translated into English as needed when they were directly quoted.

4.9 Limitations

The research dives into the needs and experiences as perceived by teachers and parents, however, students will be left out for now. No children were recruited to be interviewed due to their vulnerable status. Their vulnerable status plus the additional requirements to include them in research, go beyond the means of this research. Future examination would provide a more holistic view of the situation.

This analysis was done with a limited sample. The answers were generally consistent with one another but further, expanded analysis would allow for more validity to the data. The interview partners were also being asked, for the most part, about a foreign topic. Most had not worked with a school nurse and only some had a vague idea of what the role was. The parents particularly struggled to express a need, especially for those which had had children with nearly no injury or illness. Teachers were more able to express that there was a need and admit they could see a nurse filling this role, however, they were also unsure exactly what the role was or could be. This could have left gaps in the information given in the interview because it was not remembered or seemed irrelevant.

Even with these limitations, there was still a clear need identified in the population, which could be filled by a school nurse in conjunction with the existing school physician

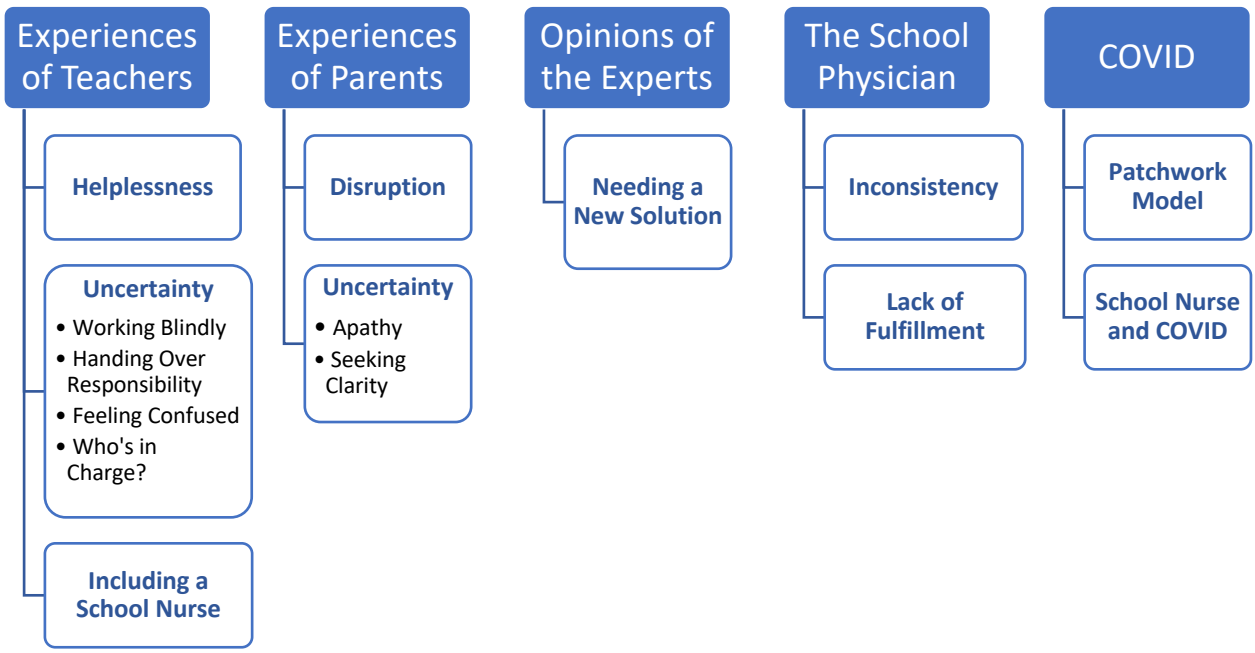
5 Findings

This section presents the findings of the research generated by this work. It is divided into two sections. Part 1 is an inductive analysis of the interviews to examine the experience of the teachers, parents and experts. Part 2 is the deductive analysis of the interviews, comparing the results with the established profile of the school nurse in order to determine viability of this role as a solution for Austria.

5.1 Part 1 – Inductive Analysis

Whereas each interview group had their own categories based on their experiences, there were a couple of exceptions. Both teachers and parents reported feeling uncertainty, though in different ways and in different situations. All interview groups discussed the school physician and COVID, thus their answers are grouped together in these categories. See Figure 1: Part 1 - Overview of Findings for an overview of the findings discussed in the following sections.

Figure 1: Part 1 - Overview of Findings



5.1.1 Experiences of the Teachers

In order to capture the experiences of the teachers they were asked about their daily life and experiences in schools. Many felt lots and unsure of themselves as they were unable to fulfill their teaching duties and take over the health care and needs of the children. They also felt as if they were trapped in a grey area: they wanted to help their students with a skinned knee, for example, however, they were unable to do so due to legal limitations. The most they could do is call the parents or at most place a Band-Aid over the wound without cleaning or assessing it.

5.1.1.1 Helplessness

All teachers recognized the precarious situation they find themselves in, even when a child only has a minor abrasion or cut from a fall, *"we were taught that we legally cannot do anything unless given express consent from the parents"* (Teacher C). They want to help the children in their classes and get back to teaching, however, due to legal limitations they are extremely limited on what they actually can do. This left all teachers with feelings which can be collectively described as "*helplessness*". As Teacher C put it "*of course I know … what to do but I am not allowed to*". Teachers C, G, M described being "*overwhelmed*" and Teachers A and G also felt of the situation as a "*type of powerlessness*" to care for their students during the school day.

5.1.1.2 Uncertainty

5.1.1.2.1 Working Blindly

The teachers mentioned feeling as though they were working blindly and were uncertain about how to care for their students. Many felt that they were given students, whom they had to care for during the day, but they were not properly given enough information about their health problems. They did not know how to care for the child. When they were given information, it was only helpful in a very limited way as they were not able to legally act in order to help the child in any meaningful way, except for emergency situations. Teacher G reflects on this by saying "*I do [what is required of me] because I'm obligated to do so, but it's anything but medically correct*" (Teacher G).

They experience the pressure to act, because they must care of the children during school hours, however without the proper information or background to understand the health implications facing each situation, they feel they are working blindly. They complete what they are told or required to do without really understanding the whole picture. Often, they felt that the child may have a need or potential need but feeling like they lacked the time, resources and/or know-how to act. This was echoed by other teachers also.

5.1.1.2.2 Handing Over Responsibility

Many of the teachers explained that this uncertainty was coupled with the feeling of an obligation to act as they have a responsibility to care for the students while they are in school. Teacher M admits "*you just pass it onto the parents*" when something comes up during the school day without seeking further information or exploring the needs or situation. When they are able, they just pass information or care along to the caregiver outside of school hours, knowing that they are not working with enough information to be skillful in their care.

Teacher M, in contrast, enjoys being able to hand off this responsibility to the nurse "*you don't have to worry*" about deciding what's important or what to do. They explained that they "*just send the kinds off*" to the nurse and knows that they are taken care of, and that upon their return they will be ready to continue the day. Teacher C also expressed the desire to have someone else to answer questions or to tell her what to do, taking the decision making or responsibility off of them.

5.1.1.2.3 Feeling Confused

Teachers G and C expressed frustration at getting information from a physician or governmental authority: "*they just confused us more*" (Teacher C) and "*I don't know what any of this means*" (Teacher G). The information is not given to them in a meaningful way in which they could understand or implement. Teacher M explained that with a school nurse in place, the teachers "*feel informed*" and "*sometimes the thing is when you're unclear you can e-mail them again and ask whatever you're unsure about and they would immediately reply*".

Teacher M also explained how for many teachers, "*they don't speak German so they didn't really know what the news [said]*" and cannot get information from outside sources as easily. Without someone to turn to, they are left in the dark and do not know what to do.

5.1.1.2.4 Who is in Charge?

For teachers there was uncertainty as to who was in charge of various health needs. Teacher G mentioned "*whether during a pandemic or not there is a clear need for someone with medical knowledge to be managing programs at the school*" in order to optimize health and health outcomes for the students. Teacher G also saw the nurse as an important too because "*she knows the students over years*" and thus has not only a better connection to the students but also see them as they change over time. Teacher C talked about the students needed to be handed off to others, such as the secretary or parents in order to continue teaching for the other students. Teacher E explains "*it kind of depends what happens*" as to where the students are sent.

5.1.1.3 Including a School Nurse

When specifically asked how they feel a school nurse may influence the situation, if they were to have one, they all said it would be something they would like to have and felt that the school nurse would be better equipped to deal with the situation as their teacher training did not cover enough for them to deal with complex situations coming up in class or it caused too much of a disruption to the teaching day. Being able to send the child to be cared for was seen as a much-welcomed alternative. "*I feel that for the teachers particularly it would be important… we do not feel informed so it would be important to have someone at the school"* (Teacher G).

For Teacher M, who had experience with and without a school nurse, she described how it's "*… REALLY nice to just be like I don't have to deal with those things that would interrupt my lessons… "* allowing her to be free to continue teaching the remaining students and not having to "divide attention". Teacher C explained that "*I am not informed enough about the illnesses my students have and this has always been a stress factor for me*" and felt that it was all an "*organizational nightmare*" and thus investing in a school nurse would "*be worth it*".

5.1.2 Experience of the Parents

All parents expressed worry that they would not be able to shed light on the situation in the school as they do not have a clear picture of what goes on in the school. They all were unsure if they could be "helpful" for an interview because they did not have experience with a school nurse. After encouragement, they were able to provide more insight than they realized: they experienced disruptions to their workday in order to give medication or pick their child up from school. Most felt that what happened in school was mostly unknown to them and some were not even sure what kind of care, if any, was provided at all. The process of the interview seemed to shine light on the situation and they were able to piece together a picture of the school, based on what they did have experience with and were able to shed light on. Even this in and of itself shows that there is a disconnect between the schools, school physicians, parents and teachers.

5.1.2.1 Disruption

The most common emotion expressed by parents was a frustration with the disruption to their day when they were called to the school to collect their child or complete tasks which they felt could otherwise be covered by the school if the right person had been present. Parent F, L and I all had to leave work at some point to give their child medications that had to be taken during school or after school care hours. Teacher C spoke in her capacity as a mother and explained that because the teachers were not supposed to be doing any care and were worried about legal implications, cuts and scrapes are left for the school day for parents to clean at home. They found it frustrating to "care for wounds after the fact" as it "makes it that much more difficult once it's begun to heal".

Parents H, I and L all spoke to the fact that they had to scramble with the logistics of when to pick up a child, who should do it, when it should be done and Parent F felt that the child had to be home longer than they would have had to if there had been a school nurse (to give medication) and saw their child "really struggle with doing school from home" and wanted the child back in the classroom as quickly as possible.

5.1.2.2 Uncertainty

For many parents there was a sense of uncertainty, however their feelings around this uncertainty were different from the teachers.

5.1.2.2.1 Apathy

The parents seemed to accept, as Parents H & J put it "*what happens in school stays in school*". All echoed that because nothing "bad" had happened then it was mostly okay that they did not have a picture of what was happening inside the school with regards to health or accidents. They felt the need to accept the situation as it was, as there was no chance to change it. Parent L spoke about a time their child came home with a scraped knee and while it had a Band-Aid, it was not cleaned of dirt and gravel. She further explained that while she found this frustrating, she also understood that the teachers are not really allowed to act and thus accept the situation as it was.

5.1.2.2.2 Seeking Clarity

Parents expressed being unsure about who was in charge of what things within the school. Parent I admitted, "*I have no idea what's going on in the background*" or who oversaw delivering the information. Parent J was not sure who was taking care of what or who might be in charge. Parent F wished, "*they should be teaching not having to deal with paperwork about a kid's special needs it's like yeah that should be the job of like a nurse*". For Parent F, however, it was unclear how to deal with this in their school without a nurse.

5.1.3 Opinions of the Experts

All experts expressed the belief that the current system was not working and needed to be changed. There needed to be a new solution. Expert K felt that the school physician program was lacking because it was not regulated and depended greatly on the person who was working. Additionally, they felt that the physicians were not present enough in the school to cover the needs of the children. Expert B expressed the feeling that the patients in a school with a school nurse were "*in better hands*" because they were "*able to coordinate care*" with the school nurse. For the rest of their patients, individualized plans had to be developed in order to block care outside of school hours, regardless of the treatment or diagnosis. This

added a level of complication for the practitioner, family and student, which was avoided when a nurse was present. Finally, Expert A, the school nurse was able to name many examples of how a school nurse was a practical and necessary solution for schools.

5.1.4 The School Physician

Every interview partner explained that the school physician model, which is currently in place in Austria, has wide variability from no one present in the school (Parent J's school) to one coming several hours a week. The child who joined the conversation explained that the school physician was present every day, even if not all day. This information was unknown to the parent. Expert K explain that the COVID pandemic especially, "*showed that there is a lot of room for improvement*" for the school physician program as the schools expressed the need to have someone there and consistently present for their needs.

5.1.4.1 Inconsistency

Teacher G felt that even though their school had a school physician there was "*no one to ask*" when the teachers needed advisement on medical topics, be that for lessons or for student health. Teacher C echoed this saying that while the physician was there "*but only ever Thursday*" and for the regular school health checks, they are "*not there to advise us*" and they "*couldn't ask questions*". The school physician had no advisory role or place in the school to support staff or students.

Teacher M explained that in some schools they had worked in throughout their career, the school physicians "*are the local [general practice physician] that's the people that are the school doctors*". They were not in the school unless for a specific health check or when called for an accident. The teachers were still responsible for the daily needs of the children.

Expert K felt that there were "*major structural problems if not deficits*" with the current structure of school physicians coming to schools only at certain times during the week: "*they have no presence in the school*". Expert A and B echoed this saying that the school physicians are spread between 4-5 schools and because they are not consistently present, they are unable to build relationships with the students, which is an important role of the school nurse.

5.1.4.2 Lack of Fulfillment

Teacher E explained that they use the secretary when they can as the doctors are generally not around when they are needed and are generally used for the older children to write sick notes and sick note releases. Teacher G, M and C explained that they find that the school physician is not there when they would need the services for a sick or injured child.

Teacher E felt that there was "*something missing, where no one is responsible*" for the daily care of the students. The school physician takes care of specific, developmental checks but felt there lacked something for the day-to-day or the things that come up while the students are in school. Teacher G echoed this stating that there was a "*lack of follow up*" even from the suggestions (missing immunizations or vision abnormalities) coming from the physician. A letter went to the parents but then "*nothing happens*" (Teacher G).

Parent H explained that while the physician was present in the school, the children were unable to "*just go there when needed*" as the time was used for regular checks and other things, but for acute illness or injury the physician was not there. Parent I explained that the school physician in their child's first school was more or less unknown, as they were hardly present. When making the transition to secondary school, the school physician introduced herself to the parents and helped write the COVID communications, but questions were still sent to and answered by the school director and not by the physician. Parent L echoed this saying that they sent all health questions or follow up to the schoolteachers or director via an app.

Parent F also expressed frustration as their child was in a school for special needs but was still unable to get consistent help: "*like her last step [in the day] could have been going to the nurse and getting her medication for example and then she could go on her way to the [after school care] um something similar*" and that they were unable to recognize medication issues as quickly as there was no one in the school observing their child or that could advise the teachers on what to look for.

Expert K explains that while they school physicians were, for example, intended to be used for the distribution of COVID information and vaccines however they have not been able to get this consistently done throughout the schools. The doctors are not there are not consistently giving out the information or the vaccines.

5.1.5 COVID

The experiences of the last several years could not be separated from the COVID-19 epidemic. The parents had drastically varying experiences to each other, and the teachers and experts felt that the epidemic specifically highlighted the role a school nurse would have in the school system as it was a great example of how the role could function (because of visibility).

5.1.5.1 Patchwork Model

Each school created a different system for dealing with COVID. Teacher G explained "*we had to do everything ourselves as the government information came way too late to be useful*". Teacher C said they were only given information from the legal side; thus, the information was not always understandable and when the director was not able to understand it either "*she called the person in charge but they didn't have time to answer questions*" so they were left to figure things out.

Teacher D's school had an administrator, "*that's the health and safety so under his umbrella comes health and safety so everything comes via him*" but he *"[did] not have any medical training that I know of*".

Teacher E's school had "*open communication between the administration, students and teachers*" but still felt that the "*governmental regulations could have been better explained*" to the teachers and school so that they could have better implemented it.

Parents L and H had Apps which were used by the school to distribute information, but they also admitted that the information was not much different than that coming from the media and they often knew it before it was posted. They did say that they could ask questions through the app, but the information was not always answered before the following day.

Expert K explained that the pandemic showed that the "*school physician role is a big question mark*" needing attention, as it was not adequate to cover the needs of the school, illustrated during the pandemic especially. They were not present enough to adequately advise the schools.

5.1.5.2 School Nurse and COVID

Teacher M explained that the COVID response team in their school, which included the school nurse, were the ones too give out all information,

> "*when the COVID response team formed at our school and they would send out e-mails like what are the current rules what do we have to follow how do we have to you know like do we have to use masks or masks breaks how we have to ventilate our rooms and like ALL the protocols we have to follow during the day can we take off the mask for 15 minutes or just like 10 minutes?".*

Information and explanations were given so that the rules and expectations were clear and the team was always there to answer any questions quickly.

Expert A echoed this need for someone there to clarify,

> "*and although the rules were quite clear I mean there were lots of rules they changed occasionally with some frequency but I could help implement again make that logical as to why yes your child can come to school when you do this because you had people who did not believe in COVID*"

and how her role was to clarify misinformation, especially from the parents, "*saying no were not [testing] that's DNA we're not allowing our child to test*". She also explained, "*I could take the information and uh at least distill it to make it understandable for parents and the administration so that they could enforce the rules*".

5.2 Part 2 – Deductive Analysis

In the second round of coding, a more practical approach was used to determine needs of the school-aged children based on the stories and experiences expressed by the adults in their

life and to categorize these needs based on commonalities. A deductive approach using the "School Nursing: Scope and Standards of Practice" (American Nurses Association, 2011) was done. The gaps in care or unfulfilled needs in care and support were compared to the task of the school nurse – what could the school nurse take over to meet these needs and cover care during the day – would this be the right solution? Could the need be met? By using a deductive approach, the issues facing the parents and teachers could be attempted to be addressed. If they could be covered by the role of the school nurse, then this could possibly be a feasible solution. If there were, however, largely unmet needs after the deductive analysis, it would show that further research into a solution is warranted. The results are categories represented by the profession of a school nurse (see an overview in Table 5: Overview of Categories and Examples from Each Category)

5.2.1 Assessment

The aspect of assessment was spoken about by all participant groups: teachers, parents and experts.

Teachers explained times where they felt that they needed to do more of an examination than they were qualified to do. For example, Teacher G did not feel that they were properly prepared for an allergic reaction which happened in their classroom and felt handicapped to act other than calling the emergency services. They did not know what to look for or how to assess the child: was it really an allergic reaction? What were the signs to look for? Was there anything else to consider? This teacher also explained that while their school has a thermometer available for the teachers, it was never used because of its location, too far to be feasible or practical to locate when needed. Thus, the evaluation would not take place even in cases of suspected fever.

Finally, Teacher G expressed frustration with chronically ill children, where things such has stomachache were happening on a frequent basis, "*what should I do? I am not a doctor*". They were not sure what to assess or look for. The desire to help the child was there but there was nowhere to send the child or a way to intervene for this teacher. Their hands were tied, and they lacked knowledge and authority to pursue it further.

Teacher D felt confident with small cuts they were able to cope but with larger injuries "*what should we do, what's the best thing to do?*". This uncertainty was described as "*unpleasant*" (Teacher C, G).

Parent F explained about a time when their child had hit their head and was given a cool pack. This was "*fine*" for the parent as the child was "*fine*" (Parent F). She explained that she does not have a high expectation of the teacher to do more than this as they are not trained for more and their job is to educate the children and not evaluate their health.

Parent J mentioned that their child's vaccination record was "*checked before starting school*" however admitted that nothing was done after that and no further follow up was done. Parents J and H both admitted not knowing if vaccinations were given in school or if there was anyone determining if or when their child should have their next vaccine.

The experts named examples of the typical exams that are required during school: school entry exam, height/weight and growth measurements, scoliosis check, swim and sport readiness exams, etc. Expert K felt that there needed to be more standardization within the schools for preventative or standardized assessments. They felt that this was done too inconsistently in and between schools and could be a great potential for improvement, where the nurse could help examine, document and maintain records for these things. Expert B explained "*I really think that the most important thing is for someone to be there at all times*" to care for the students. They also felt it was important to have someone qualified to care for chronically ill children or children with reoccurring symptoms in order to monitor and evaluate for changes. Expert B also believes that the nurse is in a "*much better position to assess those and deal with those than teaching staff*".

5.2.2 Diagnosis

Teachers mostly spoke about diagnosis in terms of handing things off to the parents. They would tell the parent what they observed or that something was going on and ask the parents to follow up.

Teacher G expressed frustration about caring for children with persistent symptoms day after day "*what do I do when I don't know what it is*". Teacher M says "*you just deal to be honest*" explaining that the child is taken care of in the best way they know how but there is not always much intervention actually done with so many unknowns. Their uncertainty revolved around not having clear answers or a diagnosis.

Parent L explained a similar situation, where the teacher just explained exactly when symptoms occurred and what teacher did in the classroom "*nothing more or less just like this*" and then waiting until the child was collected at the end of the day.

Expert A explained the types of diagnoses the school nurse does beyond only standard illness assessment and acute injury care: "*address[ing] the psycho-social components of illness too*". This requires determination of when this instead of something else is occurring.

Expert B spoke to the importance of having a qualified person in the school doing the diagnosis and explained in their situation and relationship with a school nurse they were able to diagnosis students "*Because when one of my patients comes to the school nurse with an issue she's free to contact me and we troubleshoot together*". This contrasted with Teacher C, who felt they did not "have the know how" to care for students or a resource to turn to.

5.2.3 Outcomes Identification

Teacher G felt that it was important to have a nurse determining these outcomes as they "*know the students over years*" and knows them well and can follow them overtime. Teacher C explained of a time when they tried to work with the parents to plan for a child for the year but "*all information came from the parents*". They parents were not able to answer all of the questions that the teacher had about how the diagnosis would influence the school day and what kind of expectations the teacher should have for the child.

Teacher E discussed a student who had to stop her planned course of study due to illness and the environment of the classroom. There was not a nurse available to help determine outcomes or modification in this case.

Parent F expressed frustration with their situation "*she was six she wasn't really telling us like this is the problem and she wasn't putting on enough weight, but she's always been a skinny kid*". The school was worried about what was happening but both they and the parents were not sure what to do and had to find out over a long period of time that the child's medication was causing an upset stomach and lack of appetite. Parent F explained that they wished someone was in the school who could have better observed the child and helped inform them about the situation, determine what to expect and when to intervene.

Expert A spoke of the goal to keep kids healthy and to "*to make sure that they are getting optimum education*". They also mentioned management of newly diagnosed illness such as a child with a new diabetes diagnosis. Additionally, after injury the nurse helps educate and determine "*outcome[s] so that they don't sprain their ankle again 1 month after they just sprained*".

Expert B "*fill[s] out a protocol for my patients with instructions for the school nurse from what to do in any specific situation if an emergency should arise*".

5.2.4 Planning

Teachers explained their reactive rather than proactive role in students' health and health outcomes: Teacher G explained "*yeah you don't have anyone*" to advise on what to do. Teacher E took it upon themselves to ask a student about their illness "*I didn't realize until then how serious the illness was*" and only then spoke with students about limitations and plan when something was needed. Teacher D had a student "*with just a nut allergy*", the child had an EpiPen and the school decided to use that and call emergency services should the case arrive. This, however, was not an official or written plan. It was up to the individual teacher to determine a plan of action.

Teacher D mentioned that planning for all "*health and safety*" issues "*fell under the hat*" of a school administrator who lacked medical expertise or training. They were the sole decision maker for matters deemed to fall under this category.

Parents mostly discussed planning in reference to COVID. Parent I explained how their school determined how to implement rules and to "*modify within limits*" to fit the school and it's needs. This however was done by teachers and administrative staff without input from a medical professional.

Expert A spoke to the importance of having a medical expert when planning regulations or changes. In one example while planning for COVID regulations in the school, others on the team asked "*can we fudge it a little bit*" to make a regulation work of room size and number of students in the school and nurse (Expert A) had to explain "*no you can't … because it was unclear why we were doing the measures that the government implemented*". The nurse was the one who needed to do the planning, as they had the understanding of the regulations, the medical background to understand how to act to best implement it: no, it was not possible to just put more students in a classroom because it worked better for the school.

5.2.5 Implementation

The experts, teachers and parents characterized the implementation of healthcare for students as inconsistent and uncertain. Who was in charge, when or who to turn to with questions varied from school to school.

5.2.5.1 Coordination of Care

Teacher M reflected on working with a school nurse, "*absolutely it was great teamwork with the parents and school nurse and it was really great*".

Parent F explained this, "*my big thing is mainly the school needs a point person that can tell parents where to go / what to do*". They felt that care was haphazard and there were large time gaps between her giving the school information, the school reviewing it and requesting more. They felt that what they needed to do, where they needed to go, what information

the school needed and how to distribute information would have been much more efficiently done had there been one point person, such as a school nurse, to coordinate care and distribution of information so that each caregiver had the whole picture.

Experts A and B felt that it was very important to have someone at the school to manage care of the students on a daily basis to liaise with students, parents and teachers. Expert B gave the following example: "*kids with a peanut allergy or a more severe food allergy or asthma because those are issues that come up at school and um it's very reassuring that there is a school nurse particularly as a physician*".

5.2.5.1.1 Sharing of Information

Teachers C felt that the information given to them about their chronically ill students was "*absolutely not*" enough and wished they had someone to talk to within the school. Teacher M explained that information "*was eventually given to me*" but came from different sources.

Parent H explained that there was "*information exchange and discussions between the parents' association and the school*".

As mentioned previously, Experts A and B discussed how they were able to share information about specific cases when needed in order to best serve the needs of the student.

5.2.5.2 Health Teaching and Promotion

Teacher G believed that it could be beneficial for both students and their parents when someone was there to educate and be there to answer their health-related questions. Teacher E explained that "*these topics are covered in biology class*" and was not sure if there needed to be more. Whereas Teacher D felt connection was important for understanding: "*things like … someone who they know will listen to them and is non-judgmental*" for students to listen and use information and not be afraid to ask questions for better understanding.

Parent F expressed frustration at a lack of understanding from the administration and teachers in regard to their child's needs, "*she thinks that attention disorders can be solved*

with proper nutrition and it's like no actually her brain chemistry is a little off" and felt there was a need for more education on the administrator's part. Parents L, I and J felt health topics were covered adequately in their child's school, such as eating healthy and thus felt that there was no need for further support.

Expert K in contrast saw this a critical need and that the "*information distribution and explanation for students and teachers [needs to be] intensified*". Expert A explained how over the years this role has changed to meet the needs of the students and teachers covering various topics including sex education, health and wellness promotion and disease management and mitigation. Specifically for chronic illness, Expert A explained that "*because there can be a prejudice*" continual teaching and open communication with the teachers is important in order to "*distill it to make it understandable for parents and the administration so that they could enforce the rules and to the children so that we could help them*".

5.2.5.3 Consultation

Teachers were looking for someone to ask questions of to clarify things when they had questions about the students or how to deal in the moment with a certain situation.

Parents were less able to speak to a hypothetical person to speak with in the school, as they did not have experience being able to even consult with the school physician when they had questions about their child's health and wellbeing.

Expert A and B explained that they find the relationship between physician and school nurse helpful: the nurse takes care of the daily needs and can contact the physician at any time in to troubleshoot any potential problems as they arise.

Expert A also explained "*I am working as a health provider or professional … I have the expertise to know the difference to know the difference between what's a serious illness or serious injury*" and can advise the teachers accordingly. Teacher G reinforced this saying they would feel more comfortable with someone to ask because "*as a teacher you don't always have the answers … having someone to acutely help in the school is important*".

5.2.5.4 Prescriptive Authority and Treatment

Parents I, L and F all had times when they were required to come to the school to collect their child early or take time off work to come give them medication: "*there was one time that I had to go in school and give her the medicine*" (Parent L).

Teacher M explained without a nurse the teachers' hands are tied in caring for the students, even when they know what to do: "*when it's a headache if you just took pain killers it would be gone. And even like the kids are telling you 'well at home I always just take this' and you're like well yeah*". While the solution and treatment of an ailment like a headache may have been clear, it was not possible without someone within the school who would be able to do so. Teachers C and F wished they had somewhere to send their kids for treatment of, for example, minor injuries within the school rather than leaving them to wait until the end of the school day.

5.2.6 Evaluation

Parents, teachers and experts had differing viewpoints when it came to evaluation. Teacher G explained it is "*super when someone else can take over*" to evaluate the students as it takes a lot of time and teacher's "*expertise is not there*". Teacher M felt that in some cases, even when they knew what to do, their hands were tied to act, "*we just I mean it's not like when it's a headache if you just took pain killers it would be gone. And even like the kids are telling you well at home I always just take this and you're like well yeah…*". Teacher E explained that they could call the ambulance in a time of need but felt powerless to do anything more than that – as they lacked the knowledge and authority to tell the emergency services more nor explain to the parent why things were not going as that parent had expected or wanted.

For parents they mostly expressed an understanding that "*everything seemed fine*" afterwards to surely what the teachers were doing was "*enough*" (Parent H). Though Parent I said it would be nice if something "*with qualifications*" could do an "*initial evaluation to determine the needs of the child*" but ultimately because "*nothing bad had happened*" also felt the teachers were doing enough. Finally, Parent F expressed frustrating that the treating

physician was not hearing them when "*we were like yeah we think this dosage is too high yeah that's not right*". She felt that someone in the school could have also seen this or advised them because they are the people who see the child the most and in the case of a nurse or otherwise qualified persons, they could understand what they were seeing and evaluate the situation to determine if intervention was needed.

Expert A explained that evaluation of students takes time and requires specific knowledge. Expert B wanted to have someone in the school to assess things and Expert K felt that evaluation was not possible under the current system as the school physicians were not present in the school for most of the time and thus are not available when needed to assess or evaluation a situation or event.

5.2.7 (Continuing) Education

Teacher G spoke about how they would have appreciated having someone to talk to in order to stay up to date and be informed about their students' illnesses. A source in the school which was up to date on current treatments and how to best support the child. Teacher G also mentioned how parents are "*very critical*" when she tries to give them any sort of explanation, because she lacks the training in the medical field and cannot keep current with everything that is going on, even for a specific illness or diagnosis. Teacher C also explained how it would be helpful to have a nurse to "*educate the parents*" about various topics such as when and what immunizations are needed and how to keep their child healthy. As this information can change over time, it would need to be someone who is continually up to date about the current regulations and suggestions.

Parent I wished for someone "*who is actually trained*" to be the one to take care of the children.

Expert A spoke about the need for the nurse to be up to date on best practice items but also the need to be the source for teachers on this information as needed.

5.2.8 Communication

Teacher G also sums up communication by saying "*what can I do when a parent tells me no? I don't have the authority…*". The teachers felt that the communication around health topics or health needs, was best done by someone with medical training.

Expert A reflected on the need to discuss with teachers and explain to them the health needs of students they interact with and for example "*you can say so ah alert the teacher hey don't let them do X, Y and Z activities yet because they're not far enough*". They teachers get the communication from the source directly and are able to ask questions and troubleshoot. They also explained that for all parties in a school having a "*medical person [be in charge of communication] and not an administrator of any kind you had a little um clout*" and the information is actually considered and more used than when someone without qualifications says it. The parents and community understand and respond to the information differently. Expert B felt much better knowing that there was a medically qualified person fielding information and also there to "*educate the parents*" about what they need to do, as the nurse sees the "day to day".

5.2.8.1 Feeling Lost - Where to Turn

Teacher J and H explained that much of what happens in school they find out through "*WhatsApp chats with other parents, long before any communication from the school comes*" and according to teacher D "*I think so I mean I think there were a lot of misinformation*" floating around and it was hard to know what information to rely on. They were not sure where to go to get better information, especially when it came to the specifics of their school or situation.

Furthermore, all parents were unsure when it came time to ask questions, which person from the school that they would need in a particular situation. Parent J commented "*yeah when you have a question you ask the teacher I guess but if they don't know the answer they ask the director or someone else and get back to you*" but felt "*they're just repeating what they've heard in the media*". Parent I said "*there was no one, not even a school physician who could advise us, we asked the teachers when we could … but I did not really get much information*".

Parent L was not sure about regular school policy stating, "*the other three years I've never heard of any vaccination or so, so I don't know something new maybe*" but was not sure where to get this information. Finally, Parent F felt frustrated, "*yeah we really haven't been getting any sort of communication*" about what was being done at the school.

5.2.9 Collaboration – Nurse at Core

Experts spoke about how critical it was to have the nurse at the center of collaboration within the school between teachers and parents and students. Expert B said that it was important that the nurse was in the school "*on a day-to-day basis … because when one of my patients comes to the school nurse with an issue she's free to contact me and we troubleshoot together*". Expert A echoed this explaining that the nurse is at the center of these teams and groups surrounding student and school health, "*the nurse's role is not just immediate healthcare delivery but in a holistic approach to healthcare can help educate the adults taking care of the child and help the adults understand the implications*" and explained how they decide when and who to get involved in various situations. Expert K spoke about how it would be important to have someone who is consistently there in order to build a "*collaboration*" with the existing school physicians to coordinate care and data collection to report to the health authorities.

5.2.9.1.1 Needing a Partner

Teachers were looking for a partner within the school, with whom they could work with and ask questions of. Teacher M, who has worked with a school nurse said having a nurse, "*takes away things that you don't have to worry about you can just be like not my problem anymore in a way which is just easier when you have to follow through so many other things all day anyways*". Teacher C felt it would be important to have someone stabile in the school who "*personally knows the kids*" in order to better connect and work with them.

5.2.10 Program Management

The parents mostly viewed this in terms of COVID mentioning that they were not really sure who was managing this in the school (Parents J and H) and both felt that the information was

being simply repeated from local media. Their questions could be answered; however, they were not necessarily specific to the school nor more than what could be found on the Internet.

Experts A and B explicitly mentioned how to nurse would manage such things. Expert B explained, "*I fill out a protocol for my patients with instructions for the school nurse*" and she then manages the day-to-day aspects of the protocol and implementation of said protocol. Thus, overseeing the case from start to finish.

Table 5: Overview of Categories and Examples from Each Category

Category	**Quote**
Step 1	
Experiences of Teachers	"we were taught that we legally cannot do anything unless given express consent from the parents" Teacher C
Experiences of Parents	Parent I
School Physician	"something missing, where no one is responsible" Teacher E
COVID	" Teacher G
Step 2[2]	
Standard 1. Assessment	"what should we do, what's the best thing to do?" Teacher D
Standard 2. Diagnosis	"what do I do when I don't know what it is" Teacher G
Standard 3. Outcomes Identification	Expert B "fill[s] out a protocol for my patients with instructions for the school nurse from what to do in any specific situation if an emergency should arise"
Standard 4. Planning	Teacher E "I didn't realize until then how serious the illness was" and had not planned accordingly
Standard 5. Implementation	
Standard 5A. Coordination of Care	Teacher M
Standard 5B. Health Teaching and Health Promotion	"[the school administrator] thinks that attention disorders can be solved with proper nutrition and it's like no actually her brain chemistry is a little off" Parent F
Standard 5C. Consultation	Teacher G ""as a teacher you don't always have the answers … having someone to acutely help in the school is important"
Standard 5D. Prescriptive Authority and Treatment	"there was one time that I had to go in school and give her the medicine" Parent L
Standard 6. Evaluation	Parent I wanted someone to do an "initial evaluation to determine the needs of the child"
Standard 8. Education	Parent I wanted someone "who is actually trained"
Standard 11. Communication	Expert A "you can say so ah alert the teacher hey don't let them do X, Y and Z activities yet because they're not far enough"
Standard 13. Collaboration	"when one of my patients comes to the school nurse with an issue she's free to contact me and we troubleshoot together" Expert B
Standard 17. Program Management	"I fill out a protocol for my patients with instructions for the school nurse" and she then manages the day-to-day aspects of the protocol and implementation of said protocol – Expert B

[2] For the unlisted Standards, no mention was made by the participants. See Discussion for further explanation.

6 Discussion

6.1 Research Question

The analysis of the experience of the 13 interviewees showed: teachers have a large unmet need and feel very uncomfortable with their current working conditions; parents remain largely in the dark about what is going on within the school and only are able to speak to very specific experiences effecting themselves and their child and health experts see a need for a new solution.

Following from these results, the interviews also gave insight to needs or areas for improvement based on these experiences, which allowed a deductive analysis with the framework of the Scope and Standards of Practice (American Nurses Association, 2011) in order to conclude that the school nurse could be a viable and useful solution moving forward.

6.2 Experiences of the Teachers

The biggest need for the teachers seemed to be this sense of working in a grey area – they were required to take care of the students throughout the day but were not legally able to take care of them in meaningful ways, even if they knew how. They were so limited in what they are able to do that they do not even always clean cuts or wounds before sending the child home.

Children generally are in elementary school until lunch time, meaning they are not gone an entire day, which was used as a justification for delaying care. This is, however, increasingly not the case as more and more schools become “full day” meaning they run into the afternoon. Additionally, many students go to after school care straight from school and still end up waiting for long periods before they are with their parents for care of the minor injury or even for care when feeling mildly unwell.

The school nurse would provide clarity for the teachers and allow them to pass off the tasks which they are unable to do to someone who’s qualified and can take responsibility for the

student. Additionally, providing this care during school hours allows the child to return to the classroom faster and in a meaningful way. As mentioned before, this is a large part of the role of the nurse: keeping students in the classroom longer. While they may physically still be present when the teacher is providing care, they may not be able to fully participate or concentrate when they have unmet social, emotional and physical needs.

6.3 Experiences of the Parents

The most concrete aspect of having a school nurse for parents without one was the ability to know their child would be cared for and allowed them for greater freedom to stay at work instead of taking the time to deliver care or pick up the child early. This is also supported by the research as an outcome benefiting the larger community surrounding the school – the parents are also able to take less time off from work to care for their child. Additionally, should there be someone able to distribute medications within the school, the child could also potentially return to the classroom sooner.

6.4 Opinions of the Experts

While the parents and teachers could focus on their daily experiences, the experts were more concretely focused on expectations and meeting needs of the children. One expert, the school nurse, was able to provide examples of the role and how this role is not being filled with the current system of school physicians. The expert from the government reiterated this by explaining that the school physicians are not an adequate solution, due to the way the system is set up with limited time at each school, limited and inconsistent scope of practice leading to unmet needs. Although they had no personal experience with school nurses, it was a logical idea to him which he also explained could be a solution moving forward. Also practically, research in other countries also shows that school nurses are cheaper than physicians (Gundolf, 2018). This would be expected to be true in Austria also. The pediatrician spoke to their experience working with a school nurse in school and this demonstrates how a working relationship with the physicians, such as those already present part time in many schools, could further optimize care of the child by coordinating care.

6.5 The School Physician

For many of the parents it was unclear exactly what the physician did though they did admit because they were rarely present in the school, they also did not really consider contacting them with questions or to try to coordinate care as there was no established relationship, a key component of the school nurse, being a part of the community.

The current system has the physicians in the school for a very limited amount of time, only a few hours per week based on the number of students in the school. This means most schools have a physician for 3-4 hours a week one day a week, larger schools have a physician present more often but as mentioned by parents, experts and teachers the physician was there for scheduled examinations and health checks rather than for acute care and they did not feel that the physician was there to answer questions that they may have or coordinate the daily life in the school.

They often fall short of the needs of the population. Even in the cases where the school physician was, for example, meant to be involved in the COVID team, the main information distribution and follow up went from parents to the teacher or school administrators and the physician was considered the last point of contact.

Therefore, while the yearly checkups and vaccination administration is important for the overall health of the students, there is still a gap in care that needs to be covered. Even while implementing a school nurse, the school physician could continue in the current capacity and can serve as a backup for the nurse and a consultation partner. Additionally, the checkups and vaccines done by the physician must continue to be done by a physician in Austria and therefore the two could partner up: with the nurse covering the logistics of the day to day and the physician covering these yearly checks and coordinating with the nurse on the weekly visits. This would also provide consistency for the school, teachers and students and could help clarify the role of the school physician, which is currently, according to the expert, teachers and parents, massively variable.

6.6 COVID

The COVID pandemic seemed to exemplify the need for a school nurse, highlighting deficits in the information collection and distribution process along with program management issues. While there is currently a mismatch program where each school has created teams but with different types of employees and different ways of communicating with parents, having a school nurse would provide everyone with a clear point person who was academically qualified to understand the issues surrounding something such as a pandemic and coordinate with the appropriate parties (i.e. governmental agencies, teachers, administrative staff and parents) in order to create programs best aimed to keep students safe.

It would also free up the teachers to focus on academics and administrative staff to focus on running the school. Their involvement would be as part of a team. Time would be saved by having an expert and clear go to person for the parents.

Even in times when COVID is not actively affecting daily life, the pandemic has highlighted this need for coordination and continued evaluation. This is true for general health and well-being of the students and also shows how the team approach could benefit the school. Having these systems in place allow for optimized care of individual students and the students as a group and allow for the school to act quickly in times of need to change and adapt policy to keep students safe and healthy.

6.7 Scope and Standards of Practice

Finally, the experiences of the parents and teachers and insights of the experts are compared to the use of the existing standards as defined in the *School Nurse: Scope and Standards of Practice, Second Edition* (American Nurses Association, 2011). The experiences that were described in the data fit into the existing standards, thus supporting the idea that the school nurse could be the solution for meeting these needs. Although not all standards were specifically mentioned, some of the areas of care have overlap and because both groups had trouble imagining something that they did not have experience with, they were likely not able

to consider all the ways that the nurse could assist the student and thus some categories feasibly would have not been mentioned by the interview partners.

6.7.1 Standards of Practice

6.7.1.1 Assessment

Specifically, assessment and what the child needed including whether to send them home, was a clear need for the teachers as they felt they were often in situations where they were unsure what to do and would have wished they had someone could figure out what the true need of the student was and how serious the incident or need was. Having someone qualified to do this job is for professionals clear and research supports the need for someone qualified to do this assessment. It was harder for parents to understand when an assessment might have failed, or treatment was not ideal. Many expressed feelings like whatever was happening in the school stayed there or by the time they arrived things were done and since no major incident had occurred everything was "fine". The lack of wound care, while seen as an inconvenience was accepted.

For teachers and experts, it was clear that someone should be available at all. To assess not only acute needs but to evaluate and adapt to the changing needs of chronically ill children or even for those needed extra assistance for a shorter time.

6.7.1.2 Diagnosis

Following the assessment, a diagnosis or diagnostic plan could be made. While sometimes the child would need to be handed off to the parents or other medical professionals outside of the school, teachers felt they were not in the position to even make these recommendations to the parents and wished for support from qualified personal.

Furthermore, research shows that the nurse is critical when it comes to looking at the environment of the school and the student as a whole and as part of a group to help make recommendations and plans based on these diagnoses. This further supports that this role needs to be full time to make these identifications and plan with staff. The part time school physician model does not allow for this level of engagement or problem solving.

6.7.1.3 Outcomes Identifications

When the nurse is a part of the school community, they are also able to set realistic goals for the students based on their diagnoses and relay this information to the teachers to help create timelines with realistic expectations. Multiple teachers recognized that the nurse would know children over several years and thus would be better equipped to plan for their needs rather than starting anew each year.

The school nurse explained that a large part of her role was to educate teachers about expectations from the students allowing them to know when to push them and when to step back to avoid further injury. Keeping the students uninjured and providing advice to optimize their time in school furthers their time in the classroom.

6.7.1.4 Planning

Most participants were able to relate planning in reference to COVID. The regulations issued by the government needed to be implemented and for the school with a school nurse this was done well, with the nurse able to answer all kinds of questions promptly and explain the "why" behind the measures. For the schools without a nurse, this "why" was left open and teachers were not sure where to turn. Parents seemed to have a sense that the school was doing "enough" of the planning and their questions were mostly answered, however when comparing these statements to those of the teaching staff it seems that the parents did not quite understand the struggles occurring in the school. The schools felt they were operating without true guidance and were doing their best but felt that they were not qualified to answer many questions and often handed off to administrators who equally were not trained in healthcare or something similar leaving many questions unanswered or the schools turned to other means, such has attempting to contact officials, but this led to long times between questions and answers. Particularly with the changing nature of the pandemic this was not ideal, as it led to information that was only so helpful because it was likely to change by the time it was received.

Generally, the experts were more able to speak to the aspects of planning and how the nurse stood at the middle of this planning by connecting all parties and advising on the best routes forward. Parent F's child with special accommodations was also able to understand that this link was missing by stating repeatedly that she wished there was a point person in the school to collect and distribute information and also to advise and make plans.

6.7.1.5 Implementation

Planning of course leads to implementation of said plan: through medication distribution, consultation as needed, health teaching and promotion, coordination of all parties and evaluation of how the plan is running. This is the action part of the nurse's job and encompasses some of the most visible work that is done and thus was mentioned often by all interview partners in at least some way.

6.7.1.5.1 Coordination of Care

In this role, the nurse serves as the receptor of information and also distributes this information and clarifies misconceptions staff may have. Presence in the school allows for immediate clarifications when something is observed or information is directly sought, this allows for optimized care of the student stopping bias before it starts. Teachers also mentioned wanting this shared information as they often felt out of the loop and were only given information after the fact. As mentioned by one teacher, the nurse would know the student over several years and thus could coordinate this distribution of information.

6.7.1.5.2 Health Teaching and Promotion

Consultation also leads into deeper teaching and health promotion not only about sexuality but also other health and wellness aspects such as handwashing and eating healthy. While the parents seemed to feel these topics were covered well by the teachers or that the teachers had access to outside sources, teachers expressed that they felt they were not fully qualified to teach these matters yet were required too. They also felt that they did not have sources they could readily turn to meaning that they were left to create content on their own but with a nurse in school they could have gotten a consultation.

6.7.1.5.3 Consultation

While in school, teachers felt they needed someone to help guide them and answer questions quickly and mentioned that when information was coming from parents or the students it was often done well after the fact, leaving them feeling uninformed. Furthermore, they expressed wanting to have someone to come too if they needed to problem solve something specific or seek clarification about "why" or "what ifs".

6.7.1.5.4 Prescriptive Authority and Treatment

This process highlighted the steps of execution which showed having someone at the center to coordinate and fill in gaps of information or care were important. Having a nurse to give out medication and treatment of minor wounds along with other interventions in the school brings students back to the classroom faster and for longer while also allowing parents to stay at work resulting in more productivity for both. While of course the nurses are not prescribing medications, as this would go beyond their legal capabilities in Austria, they are able to work with the student who has prescribed medications and treatment in order to make sure that their needs with these things are met throughout the day.

6.7.1.6 Evaluation

Although there as varied understanding of what would fall under evaluation and when it would be useful the research shows that this is a case were the parents and teachers are not qualified to make these assessments at the time and thus someone qualified should be there, in the ideal case. Based on the interviews it seems that the teachers and parents either feel a situation warrants no intervention during the school time, not even cleaning a wound as the teachers are not allowed, or the ambulance simply is to be called. While this may be a possible solution in Austria, it does take away resources that could otherwise be used and is not particularly cost effective, when parent's time off work and time in the classroom are taken into consideration, and often these evaluations and immediate care could be done in the school by a nurse.

6.7.2 Standards of Professional Performance

6.7.2.1 Ethics

The nurse is of course expected to act in an ethical manner when working with their patients, this would continue to be the case for a school nurse. The interview partners, due to a lack of direct experience, positive or negative, did not have many examples or opinions on this topic, thus while relevant in not directly reflected by the interview partners.

6.7.2.2 Education

This was generally considered something that needed to be kept up to date: the nurse should be informed and was responsible for updating all parties involved which needed updating, knowing where to find further information and what information is relevant and needed in a particular situation.

6.7.2.3 Evidence-Based Practice and Research

This is considered a standard by which nurses much work and do their research – using the evidence. Again, due to lack of working directly with or as a school nurse, except for the case of two experts, the interview partners were not going into this aspect of the professional performance of school nurses.

6.7.2.4 Quality of Practice

This is a critical process done by the school nurse, however its results and process tend to be less directly seen but rather experienced by the community. Without the established position it is hard to discuss optimization and maintenance of the setting.

6.7.2.5 Communication

This was also considered by all to be something that needed improvement. Teachers felt the need to be more informed and wished for reliable sources to do so and wanted open communication. Experts felt it was important to educate parents and staff around health and safety issues and follow up as needed. The largest issue seemed to be around inconsistency of information in the situation that there was not a school nurse in charge of becoming, interpreting and distributing information within a team. This led to confusion on the parts of

the parents and teachers when it came to knowing what decisions to make or how to act in various situations. Therefore, having one person in charge rather than no clear path for the information to travel ensures less information gets loss or incorrectly interpreted.

6.7.2.6 Leadership

While the interview partners could speak to wanting someone to coordinate care and be a part of the school community, the particular aspects of leadership in terms of professional practice is again something that would be dealt with within the actual role of school nursing, when it was established. It is critical when establishing and maintaining the role and would need to be further explored should the government move forward with implementing a school nurse.

6.7.2.7 Collaboration

This leads into collaboration – having the nurse at the core of the team and school to keep information flowing, decreasing uncertainty, and serving as a partner for the parents, teachers and student. Having this role filled by someone with an understanding of the needs is important to protect the child's interests and to help the teachers and parents navigate the situation. The nurse serves both as a team lead and as a partner in this situation to guide and advise.

6.7.2.8 Professional Practice Evaluation

Without the establishment of the profession, evaluation, especially in abstract terms is difficult for others to conceptualize and none of the results of the interview touched on this specifically.

6.7.2.9 Resource Utilization

While some of the parents and teachers seem to have a vague idea of the idea that things could be done better and there could be a better use of their own time, further exploration into the resources used to maintain health and wellbeing of students was not mentioned.

6.7.2.10 Environmental Health

The teachers and parents alike did not mention desires or examples surrounding environmental health. While this, again, is a vital part of the function of a school nurse, it was not touched on by the interview partners. It is hard to evaluate something that has not been implemented.

6.7.2.11 Program Management

Finally, the nurse serves as the overseer in the school making sure that policies implemented for individual students, groups of students or the school as whole are running as planned and adjusting as needed when something becomes unmanageable. For the teachers this takes away the guess work and uncertainty the feel when they are left to manage these things on their own and allows parents to know that someone is leading the situation during the time the student is in school.

6.8 Recommendations for Further Research

For the missing categories from the scope and standards of practice, further analysis could be done to determine if these items were overlooked by interviewees because they were not able to imagine that a school nurse could do these things. Further interviews specifically looking at these items, could help further the framework for the school nurse in Austria.

Generally speaking, the next step in building the picture of the current situation would require involving students. It would be best to gather their experiences and recommendations, both when shaping the role, before implementation, and as an evaluation tool after pilot programs are begun. Furthermore, research could be done to attempt to identify students which are unable to attend regular school due to their health needs or limitations. It would then need to be determined if they would be able to integrate into another school, should a school nurse be present. This could possibly increase the number of students integrated into the classroom.

Additionally, finding parents and teachers in more rural settings, where resources are differently distributed could also provide further insight into the optimization of the use of a school nurse within the Austrian school system by identifying more specific needs and use cases.

Should a school nurse be implemented it would be interesting to collect information from school physicians about their viewpoints before and after implementation to see how things many changes. A pilot program could also provide insight into how these two roles could best be used together within each school. This would also allow for the creation of a profile for the job and help optimize use within the school system.

7 Conclusion

The interview partners generally expressed uncertainty and frustration with the current system of health care for school-aged children in Austria.

Teachers generally felt pulled in many directions and were operating in areas of uncertainty which unnerved them. They did not like that they were increasingly responsible for care of children in ways that was outside of their legal abilities and felt strongly that there was a missing support or link in the school to both take care of the children's' needs and advise the teachers as needed. The current situation makes them feel helpless. All teachers who did not have a school nurse currently felt that it was something their school could definitely benefit from. They were able to self-identify this as a viable solution to their concerns.

Parents expressed a sense of uncertainty with the situation but were not really certain that anything could be done and thus lacked real drive to consider change. They accepted the situation as it was. The biggest issue they reported was disruption to their day when they had to collect or care for their child when the school was unable to. Although parents admitted to being generally less aware of what was going on within the school and thus struggled to imagine how a school nurse could be used, they were able to provide examples and answers which still indicate a need, even if they were not directly able to verbalize this need.

The experts, even the central coordinator of the school physicians, felt that the schools definitively demonstrated needs that were being unmet and that a school nurse would be able to support these needs. They all pointed to the need to change the current system to get more issues met and believed that having a nurse in the school, perhaps in conjunction with the school physician, was a possible solution moving forward.

The parents and teachers also echoed this frustration with the current school physician program, stating that they were just not around enough and they did not find neither their skills nor the times that they were available as beneficial to the children and the school. They were consistently having to deal with situations on their own and without support.

COVID has touched so many things over the past several years. The interview partners expressed understanding that there could have been a much-improved dissemination of information and management of the pandemic if there had been someone at the school with the skills and background to deal with this situation. The current school physician model fell short of providing what schools, teachers and parents needed.

When reviewing the unmet needs and situational stories provided by the interview partners it was clear that the situations that arose could have been directly dealt with by a school nurse. This was reflected by comparing unmet needs and stories from the interview partners with the defined role of a school nurse and their competencies. This coupled with how the needs and experiences fit so well to the existing understanding of the role of the school nurse, mean that a school nurse would be a viable solution moving forward.

Literature

Ärztekammer. (2022). *The professional role of school doctors*. Department for School Doctors of the Austrian Medical Chamber. https://www.aerztekammer.at/documents/261766/74541/BerufsbildSchul%C3%A4rzte_engl.pdf/889f2ef0-a91b-085a-c02a-263c2c9ef91d

AK Oberösterreich. (2022). *Diplomierte Gesundheits- und Krankenpflege*. https://ooe.arbeiterkammer.at/beratung/bildung/gesundheitsundsozialberufe/gesundheitsberufe/Diplomierte_Gesundheits-_und_Krankenpflege.html

ALBashtawy, Al-Awamreh, K., Gharaibeh, H., Al-Kloub, M., Batiha, A.-M., Alhalaiqa, F., & Hamadneh, S. (2016). Epidemiology of Nonfatal Injuries Among Schoolchildren. *The Journal of School Nursing*, *32*(5), 329–336. https://doi.org/10.1177/1059840516650727

American Nurses Association. (2011). *School nursing: Scope and standards of practice (2nd ed.)*. Nursesbooks.org

Anderson, L. J., Schaffer, M. A., Hiltz, C., O'Leary, S. A., Luehr, R. E., & Yoney, E. L. (2018). Public health interventions: School nurse practice stories. *The Journal of School Nursing*, *34*(3), 192–202. https://doi.org/10.1177/1059840517721951

Bergren. (2016). The Feasibility of Collecting School Nurse Data. *The Journal of School Nursing*, *32*(5), 337–346. https://doi.org/10.1177/1059840516649233

Bohnenkamp, Stephan, S. H., & Bobo, N. (2015). Supporting student mental health: The role of the school nurse in coordinated school mental health care. *Psychology in the Schools*, *52*(7), 714–727. https://doi.org/10.1002/pits.21851

Browne, Cashin, A., & Graham, I. (2012). Children with Behavioral/Mental Health Disorders and School Mental Health Nurses in Australia. *Journal of Child and Adolescent Psychiatric Nursing, 25(1)*, 17–24. https://doi.org/10.1111/j.1744-6171.2011.00306.x

Bundesministerium für Bildung, Wissenschaft und Forschung. (2020). *Ganztägige Schulformen*. Oesterreich.gv.at. https://www.oesterreich.gv.at/themen/familie_und_partnerschaft/kinderbetreuung/2/Seite.3 70190.html

Bundesministerium für Bildung, Wissenschaft und Forschung. (2022). *Schulärztlicher Dienst*. Oesterreich.gt.at. https://www.bmbwf.gv.at/Themen/schule/schulpraxis/schwerpunkte/gesund/schularzt.html

Bundesministerium für Finanzen. (2022). *Bundesgesetz über Gesundheits- und Krankenpflegeberufe (Gesundheits- und Krankenpflegegesetz – GuKG).* Rechtsinformationssystem des Bundes. https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10011026

Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Sage Publications.

Czypionka, T., Kraus, T., Riedel, M., Röhrling, G. (2011). *Health Workforce: Status quo und neue Berufsbilder*. Hauptverband der österreichischen Sozialversicherungsträger. https://irihs.ihs.ac.at/id/eprint/3152/1/hsw11_1d.pdf

Damm, L., Trapp, E.M., Hutter, H.P. (2013). Schulkinder mit gesundheitlichen Beeinträchtigungen: Bericht und Empfehlungen aus Child Public Health Perspektive. *Colloquium*.

Die Kinderliga. (2022). Chronische und Seltene Krankheiten. Österreichsiche Liga für Kinder- und Jugendgesundheit. https://www.kinderjugendgesundheit.at/themenschwerpunkte/kinder-und-jugendgesundheit/projekt-x/

Fichtenbauer, P. (2015). Das chronisch kranke Kind im Schulsystem. https://volksanwaltschaft.gv.at/downloads/a38dg/Das%20chronisch%20kranke%20Kind%20im%20Schulsystem.pdf

Frech, Wepf, H., Nagl-Cupal, M., Becker, S., & Leu, A. (2021). Ready and able? Professional awareness and responses to young carers in Switzerland. *Children and Youth Services Review*, *126*, 106027. https://doi.org/10.1016/j.childyouth.2021.106027

Gundolf, A. (2018). Viele Aufgaben in der Schule: Großer Bedarf nach „Schoolnurses“ – auch in Österreich. *ProCare*, 23. https://doi.org/10.1007/s00735-018-0939-9

Gundolf, A. (2019, Feb 02). *Schoolnurses – Die Chance für eine bessere Kindergesundheit in Österreich*. Pflege-professionell. https://pflege-professionell.at/schoolnurses-die-chance-fuer-eine-bessere-kindergesundheit-in-oesterreich

Harper, Liddon, N., Dunville, R., & Habel, M. A. (2016). High School Students' Self-Reported Use of School Clinics and Nurses. *The Journal of School Nursing*, *32*(5), 324–328. https://doi.org/10.1177/1059840516652454

Hintermeyer, G. (2016, Jul 04). *Inklusion von Kindern mit chronischen Erkrankungen oder Behinderungen im Schulsystem.* Pflege Professionell. https://pflege-professionell.at/inklusionvon-kindern-mit-chronischen-erkrankungen-oder-behinderungen-im-schulsystem

Hoekstra, B. A., Young, V. L., Eley, C.V., Hawking, M.K.D., & McNulty, C.A.M. (2016). School Nurses' perspectives on the role of the school nurse in health education and health

promotion in England: A qualitative study. *BMC Nursing, 15*(1), 73. https://doi-org.uaccess.univie.ac.at/10.1186/s12912-016-0194-y

Holmes, B. & Sheetz, A. (2016) Role of the School Nurse in Providing School Health Services. *Pediatrics, 6*(127). https://doi.org/10.1542/peds.2016-0852

Hutsteiner, Ruth. (2020, Feb 09). *„School Nurses" gefordert*. Science ORF. https://science.orf.at/stories/3201641/

Journal of School Nursing. (2022, June 28). In *Wikipedia*. https://en.wikipedia.org/wiki/Journal_of_School_Nursing

Kallmeyer, W., Schütze, F. (1976). *Konversationsanalyse*. In: Studium Linguistik. Kronberg/Ts.: Scriptor.

Kocks, A. (2010) Schulgesundheitspflege: Die Rolle der schwedischen School Health Nurse und das Thema Gesundheit im Setting Schule. *Pflege & Gesellschaft, 13(3).* https://dg-pflegewissenschaft.de/wp-content/uploads/2017/06/PG-3-2008-Kocks.pdf

Medizinische Universität Wien. (2022). *Cystische Fibrose Ambulanz*. https://kinderklinik.meduniwien.ac.at/klinik-patientinnen/spezialambulanzen-spezialbereiche/cystische-fibrose-ambulanz/

Nagl-Cupal, M. & Hauprich, J. (2018). Being we and being me: Exploring the needs of Austrian families with caring children. *Health Soc Care Community, 26*(4), 532-540. https://doi.org/10.1111/hsc.12567

NASN. (2022). *Our history*. National Association of School Nurses. https://www.nasn.org/about-nasn/about/our-history

NHS (2022). *School Nurse*. The NHS. https://www.healthcareers.nhs.uk/explore-roles/public-health/roles-public-health/school-nurse

Österreichische Ärztekammer. (2021). *Ärztestatistik für das Jahr 2020.* Österreichische Ärztekammer. https://www.aerztekammer.at/statistik-2020

ORF. (2022, Jan 27). *Schulen: Omikron verlangt Bündel an Maßnahmen.* https://science.orf.at/stories/3211113/

Parlament.gv.at (2014-10-28). *Bürgerinitiative: Parlamentarische Bürgerinitiative betreffend Gleiche Rechte für chronisch kranke Kinder*. Parlament.gv.at. https://www.parlament.gv.at/PAKT/VHG/XXV/BI/BI_00060/fnameorig_371157.html

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (#3). Sage Publications.

Pfizer. (2022) *Juvenile idiopathische Arthritis*. https://www.pfizer.at/gesundheit/rheuma/juvenile-idiopathische-arthritis/

Polit, D. F., Beck, C. T., Hungler, B. P. (2012). *Lehrbuch Pflegeforschung: Methodik, Beurteilung und Anwendung* (Michael Hermann, Übersetzer). Hans Huber Verlag. (Ursprünglich herausgegeben 2001).

SAGE Publishing. (2022). *Journal Description*. SAGE Publishing. https://journals.sagepub.com/description/JSN

Scharang, E. (Moderator). (2022, March 15). *Gesundheitsförderung an den Schulen* [Radio Broadcast]. Vienna: Österreichischer Rundfunk.

Stadt Wien (2022). *School Nurses*. Stadt Wien - Gesundheitsdienst. https://www.wien.gv.at/gesundheit/beratung-vorsorge/eltern-kind/beratung/school-nurses.html

Statistik Austria (2022). *Bevölkerung und Soziales*. https://www.statistik.at/statistiken/bevoelkerung-und-soziales

Wang, L., Vernon-Smiley, M., Gapinkski, M.A., Desisto, M., Maughan, E. & Sheetz, A. (2014). Cost-benefit study of school nursing services. *JAMA Pediatrics*, *168*(7), 642-648. doi:10.1001/jamapediatrics.2013.5441

Yonkaitis, C. & Reiner, K. (2022). (2022). School nursing: Scope and standards – What is new and important in the fourth edition?. *NASN School Nurse*, *37*(5), 277–280. https://doi.org/10.1177/1942602X221115192

Zach. (2020, Feb 11). *Snowball Sampling: Definition + Examples*. Statology. https://www.statology.org/snowball-sampling/

Appendix

- Einverständniserklärung
- Interviewleitfaden – LehrerInnen
- Interviewleitfaden – Eltern
- Interviewleitfaden – ExpertInnen

UNIVERSITÄT WIEN

INSTITUT FÜR PFLEGEWISSENSCHAFT

FAKULTÄT FÜR SOZIALWISSENSCHAFTEN

Einverständniserklärung zur Teilnahme an der Masterarbeit „The 'School Nurse' in Austria: A Review of the Needs and Applications of the Model in Austria" – im Rahmen des Masterstudiums Pflegewissenschaft

Name des Teilnehmers oder der Teilnehmerin *(Druckbuchstaben):* ……

Ich wurde von CLARA KLUCKNER vollständig über Wesen, Bedeutung und Tragweite des Forschungsprojektes aufgeklärt. Ich habe die Einverständniserklärung gelesen und verstanden. Ich hatte die Möglichkeit Fragen zu stellen, habe die Antworten verstanden und habe zurzeit keine weiteren Fragen mehr. Ich bin über mögliche Nutzen und Risiken dieses Forschungsprojektes informiert.

Ich hatte ausreichend Zeit, mich für die Teilnahme an diesem Forschungsprojekt zu entscheiden und weiß, dass die Teilnahme daran freiwillig ist. Ich weiß, dass ich jederzeit und ohne Angabe von Gründen diese Zustimmung widerrufen kann, ohne dass sich dieser Entschluss nachteilig auf mich auswirken wird.

Ich bin damit einverstanden, dass in diesem Forschungsprojekt Daten von mir aufgezeichnet werden. Mir ist bekannt, dass meine Daten anonym gespeichert und ausschließlich im Rahmen der Masterarbeit verwendet werden. Ich habe eine Kopie des schriftlichen Informationsmaterials und der Einwilligungserklärung erhalten.

Hiermit erkläre ich meine freiwillige Teilnahme an diesem Forschungsprojekt.

_____ _____

Datum Unterschrift des Teilnehmers oder der Teilnehmerin

Soziodemographische Daten

Die folgenden Daten werden rein für die statistische Auswertung verwendet. Die Daten bleiben anonym und werden nicht mit Ihnen verbunden. Ich werde die einzige Person sein, die diese Daten sieht (auch meine Betreuerin wird keinen Zugang zu diesen Daten haben).

Alter	_____ (Jahre)
Geschlecht	_____
Staatsangehörigkeit	_____
Nicht-österr. Staatsbürger: wie lange sind Sie schon in Österreich?	_____
Bitte beschreiben Sie Ihre Ausbildung (alle Diplome / akademische Grade / usw.)	_____ _____ _____
Haben Sie sonstige Weiterbildungen oder andere nennenswerten Qualifikationen?	_____ _____
Jetziger Jobtitel	_____
Erfahrungen in diesem Job	_____ (Jahre)

Interviewleitfaden zur Masterarbeit „The 'School Nurse' in Austria: A Review of the Needs and Applications of the Model in Austria" – im Rahmen des Masterstudiums Pflegewissenschaft

TEACHERS

Vielen Dank, dass Sie die Zeit für dieses Interview genommen haben!

über mich

Ich möchte in meiner Masterarbeit die mögliche Rolle der School Nurse näher anschauen und aus Ihrer Erfahrung lernen. Ich habe einige Fragen fürs Interview vorbereitet, was ich für meine Masterarbeit relevant finde. Sollten Sie noch zusätzlich etwas ergänzen wollen das Sie für wichtig halten, bitte erwähnen Sie dies jederzeit während oder nach dem Interview.

Ich will am Anfang sagen, dass alles, was wir hier besprechen, streng von mir als privat und vertraulich behandelt wird. Was Sie hier erzählen wird nicht weitergegeben. Ich hoffe, dass die mit diesem Vertrauen, ganz frei und offen über Ihre Erfahrungen erzählen können. Haben Sie fragen an mich?

Was brauchen Kinder während der Schulzeit?		
Inhaltliche Aspekte	**Einstiegsfragen**	**Nachfragen**
Profil von den Teilnehmern Profil von den Kindern	• Können Sie mir bitte von sich selbst erzählen? Wie lang arbeiten Sie schon als Lehrer? In welche Klassen/Altersstufen? In einer privaten oder öffentlichen Schule? • Können Sie auch ein bisschen über die Kinder erzählen? Die Demographischen Daten - Wie groß ist der Gruppe? Welches alten spanne? Wie engagiert sind den Eltern? Die Kinder?	Aus Ö? Privat oder öffentliche Schule? Kinder Krank oder nicht? Erste Hilfe zertifiziert? Mehr als nur das?

Pflege/Krankheit während der Schulzeit	• Haben Sie Kinder oder Situationen, wo sie medizinisch intervenieren mussten oder den Kindern helfen mussten? • Wie war das? Waren Sie überfordert? Waren die Situationen erwartet?	Wo haben Sie Info über den Schüler? Wo fragen Sie nach, wenn Sie Fragen haben?
Rollen von der School Nurse – wer macht sie?	• Wie war die Koordination? Wie haben Sie Informationen bekommen oder wer hat Sie informiert? • Was haben Sie gemacht, wenn Sie fragen gehabt haben? Mit wem haben Sie sich in Kontakt gesetzt?	Wer war der Ansprechpartner? Wer konnten unterstützen? Waren die Lehrer genug: informiert? Engagiert? Ausgebildet?

Interviewleitfaden zur Masterarbeit „The 'School Nurse' in Austria: A Review of the Needs and Applications of the Model in Austria" – im Rahmen des Masterstudiums Pflegewissenschaft

PARENTS

Vielen Dank, dass Sie die Zeit für dieses Interview genommen haben!

über mich

Ich möchte in meiner Masterarbeit die mögliche Rolle der School Nurse näher anschauen und aus Ihrer Erfahrung lernen. Ich habe einige Fragen fürs Interview vorbereitet, was ich für meine Masterarbeit relevant finde. Sollten Sie noch zusätzlich etwas ergänzen wollen das Sie für wichtig halten, bitte erwähnen Sie dies jederzeit während oder nach dem Interview.

Was brauchen Kinder während der Schulzeit?		
Inhaltliche Aspekte	**Einstiegsfragen**	**Nachfragen**
Profil von den Teilnehmern Profil von den Kindern	• Können Sie mir bitte über sich selbst und Ihr Kind erzählen? Wie z.B. wie viele Kinder haben Sie? Wie alt sind die Kinder?	Aus Ö? Privat oder öffentliche Schule? Kinder Krank oder nicht?
Pflege/Krankheit während der Schulzeit	• Wie lang sind Sie schon in der Schule? • Haben ihr Kinder jetzt oder haben sie irgendwelche chronischen Krankheiten während der Schule gehabt?	Wenn nein: akute Situation – Bauchweh, Ohren weh, herunter gefallen während des Sportunterrichtes

Rollen von der School Nurse – wer macht sie?	• Was sind ihre Erfahrung IN der Schule – wie war es mit dem Lehrer über Krankheiten / Gesundheit ihres Kindes zu reden? • Wie war die Koordination? Wie haben Sie Informationen an den Eltern oder Schule gegeben oder wer haben Sie informiert? • Was haben Sie gemacht, wenn Sie fragen gehabt haben? Mit wem haben Sie sich in Kontakt gesetzt? • Impfungen?	Wer war der Ansprechpartner? Wer konnten unterstützen? Waren die Lehrer genug: informiert? Engagiert? Ausgebildet?

COVID	• Wie haben Sie Information von der Schule bezüglich Maßnahmen und Regeln erhalten?
	  ○ Zeitnah?
	  ○ Verständlich?
	  ○ Wer hat fragen beantwortet?	

Interviewleitfaden zur Masterarbeit „The 'School Nurse' in Austria: A Review of the Needs and Applications of the Model in Austria" – im Rahmen des Masterstudiums Pflegewissenschaft

Thank you for agreeing to participate in an interview. First, I would like to introduce myself a little bit better before we get started. I am currently studying "Pflegewissenschaft" at the Universität Wien and I have become interested in the topic of the school nurse and have decided to explore it for my masters. I received my bachelors in the United States. There I became greatly invested in community nursing and working with patients in their communities such as schools. I moved quickly after graduating to Germany where I worked on a floor for bariatric patients and for patients with other operations involving the digestive tract. I am currently doing work in medical research on the ICU so my masters has allowed me to come back to my first interest: community nursing and the school nurse.

As this role is practically nonexistent in Austria, your expertise will help me get to know this role better and your experience helps. I have prepared some questions, which I feel will help to better understand the current and possible role of the school nurse. If you have any information to add or think that I should know, feel free to mention this at any time.

Before we begin, I would also like to remind you, that you are able to stop this interview at any time or withdraw your consent at any time without consequences. Your participation is appreciated but also completely voluntary. This interview will be recorded digitally and securely stored. The transcript will not be linked to your name or person. The digital recording will be deleted when the paper is completed. Any citations from this interview will not be linked to your name or person. Do you have any questions at this time?

Vielen Dank, dass Sie die Zeit für dieses Interview genommen haben! Ich möchte in meiner Masterarbeit die mögliche Rolle der School Nurse näher anschauen und aus Ihrer Erfahrung lernen. Ich habe einige Fragen fürs Interview vorbereitet, was ich für meine Masterarbeit relevant finde. Sollten Sie noch zusätzlich etwas ergänzen wollen das Sie für wichtig halten, bitte erwähnen Sie dies jederzeit während oder nach dem Interview.

Was kann eine School Nurse und was brauchen die Kinder in Österreich?		
Inhaltliche Aspekte	**Einstiegsfragen**	**Nachfragen**
Berufserfahrung Aus-/ Weiterbildungen	• Could you briefly explain your academic and professional history and how you came to be at your current position? **Können Sie bitte über Ihre akademische und berufliche/professionelle Ausbildung erzählen?** • Could you please tell me about your experience specifically with school-aged children? **Können Sie mir bitte Ihre Erfahrung mit Kindern im Schulalter erklären?** • And with schools, school nurses or as a school nurse? **Und mit Schulen, mit einer School Nurse oder als einer "School Nurse" erklären?**	Genaues Ausbildungsniveau und Zertifikate oder Weiterbildungen. Vorerfahrung als/mit School Nurse? Community Nurse? Chronische kranke Kinder?

School Nurses	• Could you please tell me a bit more about (school name) – such as how many students you have and what the age range is? **Können Sie mir bitte mehr über Ihre Schule erzählen? Wie viele Kinder sind da, in welchen Alter, usw.** • Could you tell me a bit more about how many children you see each day and how many of those may be dealing with chronic illness requiring your observation or assistance? **Können Sie mir bitte ihr Alltag erklären? Wie viele Kinder sehen/untersuchen/behandeln Sie jeden Tag? Wie viele davon sind chronisch krank und benötigen Unterstützung?** • Are there any challenges to consider for chronically ill children - such as during physical education classes or field trips? **Gibt es besondere Herausforderung für bestimmte Gruppen von Kindern, wie z.B. chronisch kranke Kinder, während dem Sportunterricht? Ausflüge? Usw.** • Could you please explain the resources available to you when caring for the students? **Können Sie mir bitte die Ressourcen und Räumlichkeiten, die Ihnen zu Verfügung stehen, schildern?**	Wie viele Kinder insgesamt? Wie oft/wie viele sind chronisch krank? Welche Krankheiten? Welche Interventionen brauchen sie? usw. Akut vs. Chronische Krankheiten und Interventionen Beratung von Eltern und Lehrer? Was brauchen die andere Beteiligten? Ausflüge? Sportunterricht? Wo/wie/was für eine Unterstützung brauchen sie? Räumlichkeiten und Ausstattung

Other experts	• Could you please tell me a bit about your experience working with school-aged children? **Können Sie mir bitte etwas über Ihre berufliche Erfahrung mit Kindern im Schulalter erzählen?** • Could you explain any experience you have with children in the school setting? **Können Sie mir bitte über Ihre Erfahrung mit Kindern in der Schule/während des Schultages erzählen?** • Can you speak to any experience with a school nurse or could you explain a scenario in which one may be helpful? **Können Sie bitte über Ihre Erfahrung mit einer „School Nurse" erzählen oder kennen Sie eine Situation, wo eine nützlich sein könnte?**	Chronisch Kranke Kinder? Schulalter Welches Setting? Mit oder ohne ein School Nurse (oder ähnliches) Welche Altersgruppe?
Offene Fragen aus der Literatur	• What are your daily/weekly tasks in your role and what outcomes have you noticed in the students during your time at (school name)? (School Nurses) **Was ist für Sie ein typischer Tag? Was müssen sie jeden Tag machen und welche Änderung oder Outcomes haben Sie bei den Kindern bemerkt?** • What are the current challenges – what do the students, teachers and parents need? (All) **Was sind die aktuellen Herausforderungen in der Schule - für die Kinder, ihre Eltern und Ihre Lehrer?**	generelle Herausforderungen Was brauchen dann die Studenten/ Eltern/ Lehrer

Expertenerfahrung	• Do you have any tips or advice moving forward with the implementation of a school nurse? **Haben Sie sonst Vorschläge oder Anmerkungen für die (neue) Rolle einer School Nurse?**	Was soll man beachten? Was brauchen Kinder in diesem Alter? Gibt es „häufige“ Implementierungsprobleme, die man von Anfang an schon bekämpfen oder vermeiden könnte?

Thank you for your time today, is there anything else that I have not asked about that you would like to tell me or anything else that you would like to add? **Vielen Dank, dass Sie sich heute die Zeit genommen haben, mit mir zu reden. Gibt es sonst irgendwas, was Ihnen zu diesem Thema am Herzen liegt oder das Sie gerne sagen würden?**