

# The Role of School Nurses in the School Inclusion of Children with Chronic Health Conditions in Greece

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## HOW TO CITE:

Georgiadi, M., Lithoxopoulou, M.,  
Plexousakis, S., Tomprou, D.M.,  
Loizidou-Ieridou, N., & Lyra, O. (2023).  
The Role of School Nurses in the  
School Inclusion of Children with  
Chronic Health Conditions in Greece.  
*International Journal  
of Special Education*, 38(3), 28-36.

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## DOI:

<https://doi.org/10.52291/ijse.2023.38.37>

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## ABSTRACT:

School inclusion enables all students to have equal access to the learning process. The current study examines the contribution of School Nurses (SN) to including students with Chronic Health conditions (CHC) in the typical school. A qualitative method of data collection was selected. The results were gathered through semi-structured telephone interviews, which consisted of 27 open-ended questions and lasted 40 minutes. The participants were 50 SN (42 women and eight men) from Greece. The interviews were analyzed with conventional thematic analysis. One of the most important findings of this study supports that difficulties and obstacles to school inclusion of students with CHC are identified as the lack of collaboration between the principals of the school unit, teachers, parents, students, and the SN. Our research also addresses that the SN has multiple contributions to creating a school for all children and helps students with CHC participate equally in the school process.

**Keywords:** school nurse (SN), children with Chronic Health Conditions (CHC), inclusion

## INTRODUCTION

School inclusion for all students (and students with chronic health conditions, CHC) must include access and engagement, which means the social and academic needs should be met to feel safe at school, participate in all activities, be engaged with classmates, and achieve the learning goals (Nilholm & Göransson, 2017). Students with chronic health conditions (CHC) have every right to participate in the educational process and have access to school health services ensuring the need to be in a safe educational environment, which can only be realized by having a school nurse in the school unit (Neumann et al., 2017).

A medical condition in childhood is considered chronic if it starts between birth and the first 18 years, involves a negative effect on at least one organ, persists for at least three months within a year, affects daily life and functionality, and requires medical care, or can be defined as chronic from the time of diagnosis (for example diabetes) (Mokkink et al., 2008; Oppenheimer et al., 2018). CHC lasts more than a year and includes long-term physical, psychological, emotional, behavioral, functional, and developmental disorders that occur during a continuous interval, are characterized by moderate to severe hibernation, and lead to a decrease in the quality of life (Mcclanahan & Weismuller, 2015).

The *School Nurse (SN)* is a specialized health scientist who can educate children on managing their condition (Mickel et al., 2017). As she/he is in the school area, she/he observes the children and intervenes whenever necessary (NASN, 2016). SN's role is vital for health promotion in the school unit, as she/he has the ability to diagnose problems at an early stage (Lineberry et al., 2017). She/he promotes the good health of students, facilitates optimal development, reduces health-related obstacles in the learning process (Best et al., 2018; Cicutto et al., 2018), limits school absences (Moricca et al., 2013) and promotes academic success (Miller et al., 2016). SN acts decisively in the holistic development of children with CHC, in the experience of a more qualitative life (Francisco et al., 2017; Halterman et al., 2011), in the development of self-esteem and self-confidence (Gormley, 2019; Leroy et al., 2017), as well as in the inclusion both in society and in the school environment (Neumann et al., 2017). The existence of SNs in the school unit also acts positively in saving time and money both for the parents and the teachers (Lineberry & Ickes, 2015), in reducing the cost of health care and hospitalization costs while at the same time increasing the quality of health

care provided (Rodriguez et al., 2013; Wang et al., 2014). Furthermore, classmates are sensitized, learn to respect the difference, and benefit from the support they receive from the SN (Blackwell et al., 2017). Thus the importance of the everyday presence of SN at school is significant.

According to Miller and colleagues, SNs, throughout the day in school, work proactively and help reduce expenses for the whole society. Focusing on asthma, food allergies, hypertension, epilepsy, and diabetes in children from 0 to 18 years old, they evaluated results from 2005 to 2012 for a representative sample. It is underlined, therefore, that there was a decrease in hospital admissions, but also expenses, an increase in the presence of children in the school environment, and an improvement in their academic course (Miller et al., 2016).

The importance of the presence of the SNs for both the safety and management of children with CHC in school was highlighted by Leroy and colleagues (2017). This research emphasized the focus of previous studies on asthma and the urgent need to study and develop research in other cases of CHC. In general, direct access to health through the SNs improves children's health and reduces their absences from school. As children with CHC are constantly increasing, it is necessary to increase the SNs at all educational levels. Their presence helps the overall development of children, increases self-esteem, improves their independence, ability to manage their medical issues, and, finally, their ability to plan the future (Leroy et al., 2017). The SNs work among many multiple systems, including education, health care provision, and community services to ensure the needs of students with CHC are met (Mcclanahan & Weismuller, 2015).

The research focused on asthma (Ljungkrona-Falk et al., 2014), which seems to be an essential factor in absence and low academic performance in primary school students, examined whether the management of the condition of the child with CHC can improve the course of their health, but also their overall development in general. In the 40 children who applied the intervention, their academic performance improved compared to children at lower risk of developing asthma. The average of their absence was reduced from 5.8 days to 3.7; the diseases were also reduced as they were diagnosed and treated promptly by the SN. The survey also revealed a large percentage of students who were not diagnosed, but also a large percentage of students who were diagnosed with asthma were not following special treatment. The presence of SN in school can solve the above problem through direct observation and timely and accurate intervention (Moricca

et al., 2013), reducing students' absence and improving their academic performance with asthma due to the presence of SNs throughout the day. More generally, timely and accurate intervention as early as possible yields better results in the future (Rodriguez et al., 2013).

Wang and associates (2014) investigated the effect of the SNs on the limitation of expenses and showed that the benefits are multiple. On the one hand, saving money on medical procedures is achieved, and on the other hand, the productivity of teachers and parents is improved. Therefore, there is the possibility of operating both institutions (school and family) more efficiently. This research provides results that can be exploited by those who shape policy and make decisions in any region of the world for each state to benefit from the exploitation of SNs.

The safety of students, the provision of quality health care, and the learning of the ability to self-manage children with CHC and their condition can be carried out with the presence of SNs in school. However, this is not enough; the SN must work with parents and teachers. Communication between them is essential. Research showed that parents and teachers were not aware of the duties of the SNs, which made their work difficult (Daughtry & Engelke, 2018).

Brown and colleagues (2017) presented the same lack of knowledge on the subject in research focusing on children with asthma and Attention Deficit Hyperactivity Disorder. Of the 97 schools in Minnesota from which data were collected, it generally appeared that there was meaningful communication with parents, but there were also obstacles. One of the major obstacles was the hesitancy of parents to express their concerns about ADHD and the lack of knowledge of parents about the duties of the SNs toward children with asthma and ADHD. Communication of SNs with parents is very important as it can lead to a reduction in the anxiety of parents (Peters et al., 2016).

At the same time, SNs face obstacles when discussing nutrition and healthy habits children should have with their parents. Food, physical activity, and child weight are areas that parents do not easily negotiate (Ljungkrona-Falk et al., 2014). The workload is a significant obstacle to the effective performance of the SNs' tasks. The daily needs of students with or without CHC are many and multiple; working time, however, is limited, and thus, some students are being neglected (Tiu et al., 2019). Jameson and colleagues underlined the need to have full-time SNs in every school on a daily basis in order not to lead to labor impairment (Jameson et al., 2018).

School health services can help children manage CHC, which is why it is suggested that there is an SN and a school doctor (Tiu et al., 2019). The above collaboration can also neutralize relations between health and academic performance (Sheppard & Vitalone-Raccaro, 2016).

The inclusion of students with CHC is significant, but the increase in these students requires changes in the responsibilities and how the SN operates and in their education. In the article "Becoming a Special Needs School Nurse in a Typical School Nurse World: a Personal Perspective," Minchela (2011) noted that the SNs were not properly trained to address the special needs of this distinct student population. The SNs themselves confessed that they did not feel comfortable and that they were disadvantaged in terms of the experiences needed to manage students with CHC. Communication with the special educational staff was also unsatisfactory. Interesting is the element of disclaimer on the part of the SNs with the assumption that special teachers know more about the health of their students. Therefore, the achievement of inclusive education is thus failing.

According to the Greek Law Law.88348 / D3 (2018) the SN supports students with disabilities and/ or special educational needs who attend typical schools and for whom an approval and support decision has been issued following the relevant opinion of a public hospital. At the same time, the SN supports students of co-located school units for which a support approval decision has been issued. SN's presence is considered necessary throughout the course and breaks and in any excursion carried out by the school. Its role is vital; however, it does not replace the class teacher's work. Furthermore, they collaborate and advise parents, headmasters, and teachers on issues related to the treatment of a critical incident, as well as on issues related to the overall health of students with disabilities and/or other educational needs, propose improving proposals for hygienic conditions in the school environment, act proactively and accurately for the smooth integration and acceptance of students with disabilities and/or other educational needs by peers and the rest of the school environment, provide medication only after a written doctor's instruction and written approval by the parent/guardian, maintain an individual history file for each supported student and contribute to the creation of a personalized health program. In addition, in case of an emergency, they must accompany the student to the hospital and remain close to the child until a parent/guardian presents; after informing the latter, the SN is released from his duties. At the same time, they have to organize seminars to inform school staff and parents about the health status of

the disabled child and/or other educational needs at regular intervals. Finally, they have the right to participate in the Teachers' Association (Law 88348 / D3, 2018).

According to the health profile of Greece (2017), 1 in 5 people in Greece suffers from hypertension, 1 in 10 approximately from diabetes, and 1 in 20 from asthma. This number is constantly increasing, and an important role seems to be played by the educational level of individuals as people with lower educational levels increase the risk of the presence of a CHC (OECD, 2017). Therefore, the number of students entering school with a CHC increases. At the same time, since these are dynamic situations that have fluctuations (Van Cleave et al., 2010), it becomes clear that schools are one of the best places to identify young people's health needs. The particular needs of these students are complex. Hence, the primary role of the SN is to determine the exact state of health of the child, then explain this situation to all the educational staff and proceed to design a personalized health program utilizing the medical findings (Neumann et al., 2017).

The innovation of this research is the fact that it is the first study in Greece that explores the experiences and views of school nurses in the inclusion of students with CHC. School inclusion can be challenging for SNs regarding the interventions they must implement to help the whole school setting provide the qualifications for the successful inclusion of these students.

The aim of the current qualitative study was to explore the views and experiences of school nurses regarding issues related to their role in the school inclusion of students with chronic health conditions.

In particular, we aimed to answer the following research questions:

*Research Question 1:* What are the experiences of SNs providing support for students with CHC in typical schools?

*Research Question 2:* What are the perceived barriers/obstacles experienced by SNs regarding the inclusion (at academic and social levels) of students with CHC?

*Research Question 3:* How do SNs contribute to the creation of an inclusive climate for children with chronic health problems in typical schools?

## METHOD

### *Design*

A qualitative design was employed using semi-structured interviews. Qualitative data analysis can be seen as an

ongoing process, from making sense of the data to interpreting the data and reflecting at all stages of the research (Creswell, 2011; Noyes et al., 2018). As Järvinen and Mik-Meyer (2020, p. 11) mention, semi-structured interviews use a "predetermined set of open questions (or at least research themes) but allows the interview to develop in directions inspired by the participants' accounts and varying from interview to interview." Telephone interviews can help reach participants from different places and help in anonymity, and maybe this distance can help participants express themselves more freely. Another advantage is that we can also include in our research participants that we could not reach otherwise, and the cost is minimized.

### *Participants*

The survey involved 50 School Nurses (SNs). The participants worked in primary or secondary education and supported one or more students with CHC in different areas of Greece. School nurses were recruited through convenience and snowball sampling. Participants were recruited if they were employed as School Nurses in typical Schools. The Hellenic Association of School Nurses approached the participants via e-mail, and there was a call for participation in the study. Snowball sampling was recruited for further involvement in different cities in Greece. The research started in December 2019 and was completed in February 2020. A total of 71 SNs initially argued to participate in the study, but only 50 participated. All sessions were audio-recorded. The semi-structured interviews helped the SNs share their experiences, beliefs, and concerns regarding students with CHC and their inclusion in the typical class.

In particular, 42 women and 8 men with an average age of 29.46 years. 10 hold a master's degree, while 4 are in the process of completing it. The majority are holders of a nursing degree, while 3 of the SNs have a health visitor's degree. 12 of the 50 have attended a CHC-related seminar. The seminars were mainly related to diabetes and epilepsy, while 5 SNs attended special education seminars. Noteworthy is the fact that 11 participants have pedagogical competence, which proves that this type of further education is necessary when the profession has direct contact with the school setting.

Regarding work experience, participants had an average of 2.96 years of work experience. The length of service in general schools is similar (2.36 years). Most of the participants supported 1 child (38 out of 50), 10 supported 2 students, while 2 of the participants had 3 and 4 students under their responsibility.

The age groups of children our participants supported are classified in this survey from young toddlers to high school. The results revealed that the majority of children suffer from Type 1 diabetes (37 out of 65 children). Children with seizures (7 out of 65). Noteworthy is the fact that there are children with a combination of problems (diabetes with celiac disease, diabetes with epilepsy, heart problems combined with mental retardation and joint problem, with one kidney and without an anus, Thomson type myotonia and emotional problems), therefore increasing the requirements to meet the needs of these children and the work of the SNs becomes more demanding. Of the total number of children 1 suffered from cleft palate, 1 from dysphagia, 1 had a problem with impurities, 2 suffered from gene problems affecting sugar, 2 experienced feverish convulsions, 3 suffered from heart problems, 5 children from various allergies and 1 child suffered from a sporadic disease, Type 1a glycogenosis.

### **Procedure**

Semi-structured telephone interviews were conducted. The semi-structured interview has more flexibility and freedom than the other two types of interviews (the structured and unstructured interview), and although the research objectives shape the questions to be asked, the content, order, and wording are entirely in the judgment of the researcher (Cohen et al., 2008, p. 458). The researcher has the flexibility to ask 'how' and 'why' following a participant's response, which can lead to new paths of thought and bring unique conclusions to light (Galanis, 2017). Additionally, in semi-structured interviews, the researcher guides the participant to a certain extent, making it easier for the latter not to stray from the central research question and making it impractical to conclude (Galanis, 2018).

More specifically, the telephone semi-structured interview was chosen as it allowed the researcher to contact the participants more economically. Repeated telephone calls are less costly, so more interviews can be conducted, increasing the reliability of the results. In addition, unlike face-to-face interviews, telephone interviews are less time-consuming because individuals can be at their location and do not have to spend time traveling. Consequently, contact with busy individuals is possible. At the same time, this tool is particularly useful in that the researcher can conduct the telephone interviews according to his/her requirements. It also enables the researcher to get in touch with a wider and more dispersed population, compared to the one that could be collected by traveling to meet the participants. Unlike in face-to-face meetings,

where individuals may be anxious and may withhold or omit information, in telephone interviews, individuals open up and speak freely because they do not feel the researcher's presence. Finally, the response rate is higher compared to the responses we would gather from a quantitative instrument, such as a questionnaire (Cohen et al., 2008, p. 490).

However, it is essential to highlight that this tool has several obstacles apart from the advantages. It is initially easy for the interviewees to hang up the phone. Moreover, some people tend to get irritated when unknown people call them and ask for information concerning their lives, so they hang up the phone before they are even informed of the purpose of the call. There is also a lower participation rate at weekends. Another disadvantage is that participants may withhold information or even lie, as the non-verbal behavior accompanying some situations cannot be perceived over the phone. Another significant difficulty is that it is difficult for two people who do not know each other to manage to communicate, let alone by telephone (Cohen et al., 2008, p.491).

After careful study of the literature review, the researchers came up with the basic research guidelines on which the interview questionnaire was set up.

The interview was divided into six axes:

- i. Demographics (10 questions)
- ii. The Role of SN (12 questions)
- iii. Difficulties experienced or encountered by SNs throughout their work experience (1 question)
- iv. Obstacles that SNs face or have faced throughout their work experience (1 question)
- v. Inclusion Contribution of SN to Cohesion Education (2 questions)
- vi. Implications for improving their role at inclusion. Suggestions for improving the role of SNs in mainstream schools, so that they are able to contribute in the best possible way to the school inclusion of children with ASD (1 question).

The average duration of the interviews was 40 minutes. At the beginning of each interview, the researcher informed the participants about the aims of the research, how the investigation would be conducted, and the sections of the questions that would follow in order to clarify any questions. The first questions were simple and easily answered so that the participant did not feel threatened and thus ensured a relationship of trust, which would be the basis of a natural interaction. In the first interview, which had the role of a pilot, the weaknesses of the process were identified, some points that needed modification were identified, and after appropriate mod-

ifications, the survey was continued with the remaining participants. Recording of the interviews was followed in order to reduce error and to have an accurate, secure, and permanent record of the interviews (Galani, 2018).

### **Data analysis**

Data were obtained from the transcription of the interviews. Inductive content analysis was employed, and coding was done by the four authors. Codes were compared and refined. In particular, the authors read the narratives, and open and axial coding was conducted. Creswell's analytical spiral (Creswell, 2007), as integrated in Schurink et al. (2011) was used for data analysis in this study. The steps were the following: planning for the recording of data; data collection and preliminary analysis; organizing the data; reading and writing memos; generating categories, themes, and patterns; coding the data; testing emergent understandings and searching for alternative explanations; interpreting the data; and presenting the data and writing the qualitative data report. These responses were grouped into categories, themes, and sub-themes as a way to order and identify the core findings (Jefferis & Theron, 2017; Kim, 2016; Soderberg, 2006). Our data analysis was based on the three Cs, which have been proposed by Lichtman (2006, p. 168): "from coding to categorizing to concepts, from coding to categorizing to concepts." At a first level we did the initial coding of our data, and at the second level, we revised the initial coding. We then developed the initial list of categories and modified the initial list based on repeated readings of the material. We then revised the categories and subcategories into themes.

### **Ethical issues**

Ethical issues in qualitative research mainly concern the interaction between participants and researchers and aim to ensure the safe participation of the latter in the research process. In any research, the rights of the participants come first, and the study comes after, which highlights the importance of the logic that "research should be sacrificed for the good of the individuals" (Hammersley & Traianou, 2014). The researcher informed the participants before the interview about: a. the purpose and method of the research; b. the expected risks and benefits; c. the freedom to participate in the research and the possibility of withdrawing; d. the assurance of anonymity; e. the value of the participants' contribution to the research; f. the length of the interview; and finally, h. the researcher's personal details. Ethical approval was gained from the Ethical Committee of Frederick University.

## **RESULTS**

From the analysis of their experiences, five categories of difficulties were created:

- I. *Issues of cooperation and acceptance with the school's teaching staff.*** According to the participants, the role of SNs is established in special schools, and thus, they are able to conduct health education programs and general seminars on health and First Aid more easily. On the contrary, in general school, SNs encounter many difficulties. One of the most important is the inability to cooperate in the conduct of such programs due to lack of time.
- II. *Issues of cooperation of the SN with the child himself.*** The difficulties experienced by the SNs (23 SNs stated the present difficulty) with children appear to be mainly due to the age of the children. The older the child grows and approaches puberty, the more irritable he/she becomes and demonstrates with his behavior his tendency toward autonomy and independence. Reactivity at younger ages is basically associated with the emotional world of the child, his family environment, and his social environment. Interesting is the view, expressed by several SNs at many points in the interview and not only in the relevant question with the "difficulties", but the role in the reactivity of the child also plays and the relationship with the SN. Lack of confidence also determines the attitude of the child. When the child has learned to work with an SN, a bond of mutual trust has been established, and thus, it is difficult to accept someone else. At the same time, it is important to emphasize that it is much more difficult for the child to trust the SN, according to the views of the SNs, when he/she works in 2 and/or more schools at the same time and even more difficult when he has more than 2 students at the same school.
- III. *Issues of cooperation and acceptance of the SN by the parents of the child with CHC.*** Of the total, 22 claims that parents of children with CHC often don't know their duties and require things beyond their competence. In some cases, there was a problem of communication and cooperation with parents mainly due to their standard of living. Often, it seems that parents operate with stereotypes and seek to conceal their child's condition, desiring non-differentiation. In reality, however, they bear the opposite effects. Another

determining factor that makes it difficult to work with parents is that often (parents) don't follow the doctor's instructions, and so initially, the child isn't trained and hasn't learned to manage his condition.

**IV. Administrative matters.** The SNs took on many more responsibilities than their core duties and were often not recognized as equal members of the Teachers' Association. The above view stated 5 out of 50 SNs.

**V. No difficulties.** Of all the participants, there was also that portion (specifically 16 out of 50) who stated that throughout their work experience, they didn't experience any difficulties; on the contrary, the whole school, as well as their parents, welcomed cordially and their relations from the beginning were constructive.

**Obstacles faced or faced by SNs across the breadth of their work experience**

A question related to the obstacles that the SNs face in their daily lives, which make their work difficult. The obstacles could be distinguished into the following 14 categories: financial issues, lack of infrastructure and logistical equipment, issues of cooperation and communication with parents, issues of cooperation and communication with the child, issues of cooperation and communication with teachers and headmasters, issues of cooperation and communication with the doctor, issues related to duty, issues regarding the knowledge of SN, mainly in the field of first aid, the constant movement and the existence of an SN in 2 and/or more schools, administrative matters, work load, lack of counseling, time off and for some participants there are no barriers as seen at Table 1.

Table 1. Obstacles faced or faced by SNs across the breadth of their work experience

RESPONSE CATEGORIES	INDICATIVE RESPONSES	NUMBER OF RESPONSES
financial issues	<i>"another problem ... last year let's say I had asked ... because the school is big and the accidents daily are many... many more than a small school ... we talk about 10-15 every day ... so he had asked the municipality to send me material ...(laughter) and he never sent anything... and last year we made it with the school money and to tell you the truth I was putting out of my pocket...(18<sup>th</sup> interview)</i>	17
Lack of infrastructure and logistical equipment	<i>"A big problem... is space ... we have no space inside the school; that is just us... I can't be with the teachers... they start talking... you can't... not have your own space with pressure gauges, with thermometers, with a pharmacy, have an office of your own... so I think that what happens to an SN is tragic ... not to have his own space ... to know that the child will come to find you there ... not to look for you..." (48<sup>th</sup> interview)</i>	40
ISSUES of cooperation and communication with parents	<i>"Parents, they don't understand our work-time, our role, will tell you... you know sometimes what to do... and what they will tell you is wrong... I will give you an example to understand... children with diabetes should follow a balanced and specific diet... Uh, okay, a child will eat both his dessert and his croissant... but when I ask a child, "What did you eat?" ... or "what will you eat on the first break?" and they tell me croissants all the time... I tell mom that you know she has diabetes, so it would be better not to eat croissants every day because it will never be regulated... mom completely ignores me..." (37<sup>th</sup> interview)</i>	21
Issues of cooperation and communication with a child	<i>"... as I told you, I have a reactive child, which is like that because mom has taught him, she has told him that only at 11: 30 he should make a measurement, of course, that does not apply..." (34<sup>th</sup> interview)</i>	4
issues of cooperation and communication with teachers and headmasters	<i>"...in many nosebleeds that I tried to help the child, teachers were involved... who may have attended a seminar years ago, or some people see on the internet that in such a case you have to raise your head high to stop the blood, and that is wrong because that way the blood will go back and the child may even drown, so he has to lean his head forward, hold his nose very hard with his two fingers up, uh... they were involved... the teachers... they're interfering in my role, in my work..."(4<sup>th</sup> interview)</i>	17

Issues of cooperation and communication with the doctor	"...nursing intervention... this paper has not yet been given to us by the doctor..." (34 <sup>th</sup> interview)	5
Issues related to duty	"... when I was in kindergarten, I had called the Ministry to clarify some things about the role of SNs, and they were vertical that you cannot offer first aid beyond the child which is supported... and I had asked for the adrenaline injection, for the Anapen... in case a child of mine gets a strong allergic shock ... what procedure should I follow ... I should sign a form that says P. did I do this?... they had no idea... « (23 <sup>th</sup> interview)	13
Issues regarding the knowledge of SN, mainly in the field of first aid	"it is very important to me that we do not know first aid for children... it is unacceptable, and we've been in a difficult position many times... when teachers ask us some things about first aid, and we look at the wall... because we do not know first aid for children... everyone should take the initiative... or do something on their own..." (46 <sup>th</sup> Interview)	1
The constant movement and the existence of a SN in 2 and/or more schools	"let's say a big problem is the fact that they change us every year... it is unacceptable, the child bonds with you trusts you, learns to do his schedule with you, and then all that has to change... the adaptation period, I think it is very difficult, almost the first trimester is lost..." (22 <sup>th</sup> interview)	10
Administrative matters	"In another school where I was, of course, councils were held on breaks - that's where the most important things for children were said." (3 <sup>rd</sup> interview, 27 <sup>th</sup> question)	2
work load	"... and the workload is a problem not only my child... it is the rest of the children, and we have too many injuries, and they come not only at the break, but also during the day because they get sick... it's too much to be able to control all of them..." (22 <sup>th</sup> interview)	3
Lack of counselling	"A big obstacle that made it very difficult for me last year was that we didn't have... we don't have anyone to advise us, and I can tell you that I did a lot more things than I should have ... because I wanted to..." (42 <sup>th</sup> Interview)	2
TIME OFF	"...also something else bothered me this year and I consider it a huge problem in doing my job properly... it took my child this year who was sick to be hospitalized... and I went to the hospital with strep with high fever... obviously I couldn't send it to school... and I called the next day the headmistress to ask her to leave from work... and she calls me back and tells me that as a SN I don't deserve a time off for my sick child... my own child... I can be a carrier... and I can get the other guys stuck... it doesn't make sense... really when we're gone the unit is exposed..." (23 <sup>th</sup> Interview)	3
There are no barriers	"No, uh ... I have no problems ... neither with parents ... nor with children ... nor with colleagues ... I have my own space ... so I'm fine with everything ... yes ... generally I'm lucky". (10 <sup>th</sup> Interview)	5

### The role and responsibilities of the SNs

Participants were asked whether they had developed a personalized intervention program (PIP). The majority of SNs (42 out of 50) observed that it has not formed a PIP because, according to their view, it does not fall within their competence. A number of SNs that formed a PIP basically included the intervention on some extraordinary occasion if the SN is absent (instructions for the use of medicines), the nutrition of the child, and

measurements and amount of insulin in the case of children with Type 1 diabetes.

Then, the interest turned to the recording of children with CHC health records. Some of the SNs do not record the children's health (15 out of 50). The reasons leading to this are:

1. in the case of a child with diabetes Type 1, the child should carry an insulin pump, so the recording should be automatic (5 out of 15)

2. it does not belong to the duties of SNs (1 in 15)
3. the age of the child, the older they are, the more trained they are usually; therefore registration is deemed unnecessary (3 out of 15)
4. the quality of the child's condition (6 out of 15)

However, most participants (30 out of 50) keep a detailed record of their children's health on a daily basis so that there is the record for themselves that will inform them about the development of the child, and this will also be helpful for the next SN in order to be able to better manage the incident. This is a very important file, which will help save time in the future. It is worth noting that the most frequent records relate to the condition of Type 1 diabetes mellitus. In diseases such as epilepsy or allergies, it seems that registration is not so critical. Then, less frequent were

monthly and fortnightly recordings, which were made when there was some variation in the child's health condition.

Questions related to children's improvements in areas such as socialization, performance in lessons, and acceptance of their condition, as well as improving their health. The areas observed improvements are: 1) socialization and behavior, 2) acceptance and management of their condition, 3) academic performance, 4) physical-motor improvement, 5) psychology, 6) autonomy and independence, 7) health. It was stressed, of course, by several SNs that in order to achieve improvement, there should be good cooperation and communication first with the family. Some claimed they noticed no improvement (Table 2).

According to all participants, the presence of the SN is necessary in school because this gives the opportunity

Table 2. Role and responsibilities of the SNs

RESPONSE CATEGORIES	INDICATIVE RESPONSES	NUMBER OF RESPONSES/ N
socialization and behavior	<i>"we cease a little bit to be afraid... to be ashamed... to be mocked and shouted at us in school ... we invite our classmates to see what we do if we want and if parents want it too because this is a taboo subject..." (46<sup>th</sup> interview)</i>	21
acceptance and management	<i>"Uh, improvement; however, I can say that we had mainly to the great acceptance of his problem... at the beginning of the year, I was talking to him all the time, and I was trying to explain to him that there is nothing wrong with that who has not wanted, for example, sitting in all-day, why wasn't there his mom or me, and when she sat she didn't want to take his meals.... I tried to help him with the day to see it positive... uh, maybe it was finally the only issue that bothered me with the kids... but we got through it..." (23<sup>rd</sup> Interview)</i>	26
academic performance	<i>"... with my presence at school ... I noticed that the child stabilized and thus had better brain function and was more socialized ... the basic, the child ... had the ability to be focused..." (36<sup>th</sup> interview)</i>	16
physical improvement	<i>"...but he has made a huge improvement in everything else and generally had an issue with the motor ... I mean, he didn't know how to pick up a pencil, he didn't know how to draw anything... uh, he was too far behind..." (49<sup>th</sup> Interview)</i>	2
positive effect on psychology	<i>"...uh psychologically children ... uh feel safe ... as I said before they don't have the fear... of something happening." (31 interviews)</i>	48
health (improvement or stabilization)	<i>"...the child I had last year and I told you before...we started with a glycosylated 8.9, and by the end of the year, we had glycosylated 6.8". (22<sup>nd</sup> interview)</i>	39
autonomy and independence	<i>"... when he came, he took two hours to eat his toast, a special toast, and at this time M. he has managed in a 20-year break to eat his breadsticks and cheese... on his own. He learned to manage this part. And this is also the goal to learn to manage his condition as a whole and to see his blood sugar slowly on his own..." (49<sup>th</sup> interview)</i>	26
no improvements	<i>"... no improvement ... no stabilization ... this from home is ... because if parents do not watch at home and give the child to eat whatever it is we in a five hour here can't do anything..." (26<sup>th</sup> interview)</i>	6

to the child with CHC to be in school and, therefore, to have an equal right with the typically developing students in education. Then, in this way, there is significant improvement and stabilization of the child's health. It also "works" as a psychological support and helps the child to accept his condition and manage it. 44 out of 50 stressed that the SN contributes to the promotion of school health in general through the provision of First Aid and through the conduct of health education programs. It provides psychological support to all students and, at the same time, can act proactively and intervenively. Teachers also benefit twice as much, based on what 23 SNs have claimed. Firstly, they feel safe, and secondly, they save time because they are not concerned about the health of the child but purely with their educational work. Last but not least, SNs are necessary in the school unit because they provide safety to parents, according to view 9 SNs. In addition, parents are released and save time, so they have the opportunity to work without interruption. In several cases, the absence of the SN obliges parents to be at school throughout the day.

35 out of 50 participants claimed that principals, teachers, parents, and the SNs themselves lack knowledge of

duty. Of the rest, 8 claimed that all participant parties know SN duty, 5 that they know but apply it based on personal criteria, and the rest replied that they do not know. However, from the responses of the participants, it appeared that the picture of the duty list is not clear and that they also have problems understanding and implementing it.

**Inclusion**

SNs claimed that children, parents, and teachers feel safe with their presence in the school. The integration of children with CHC seems to be achieved through: a. information and awareness of all school members about the problems of children with CHC (29 out of 50), b. the regulation of children's health so that the child has the ability to participate unaffected throughout the whole range of the learning process (47 out of 50), c. intervention if something happens (48 out of 50), d. personal conversation with the child suffering from CHC so that he can accept and learn to manage his condition (24 out of 50). The above actions result in the creation of a sense of security in all parties involved (Family, School, and the child itself), the reduction of absences of children with CBC from the learning process, the saving of time for parents, teachers,

Table 3. Inclusion

response categories	INDICATIVE RESPONSES	NUMBER OF RESPONSES	% RESPONSE RATE
awareness of children and their familiarity with the different	"... a child with CHC is an example for his classmates, in the sense that they understand and need to understand that there is something different, that is, what do I mean different? that they perceive diversity..."(5 <sup>th</sup> interview)	43	86%
development of empathy	"... children may approach me to tell me something that the child needs..., they may give him something that he needs, or not give him, in case they understand that it is something not to eat ... they do not give the child anything except what he has from home... protect."(2 <sup>nd</sup> interview)	28	56%
from the existence of the sn itself (psychological / feeling of security-provision of first aid- information on health issues-discussions-awareness with the different- organization of activities/ modules/activities related to health)	"... to tell you the truth first from what I've heard from all the schools I've been in... first the students benefit as there is a SN... all the students benefit... because suddenly there is someone who takes care of them all... this is because there is a child with CP or else I wouldn't be in this school... and they wouldn't benefit except for the class that is the child... and the next class... the classmates... they learn diversity ... and they learn from a very young age what it's like to have a different person beside them ... to accept them ... " (18 <sup>th</sup> interview)	47	94%
no benefit	"... last year with the little girl with diabetes there were rivalries ... bad ... uh to the point where the parents intervened... it was not good climate ... that is, she stood out from the rest, she was spoiled of course ... but there was a problem... it was a bit of a strange situation she and the school was strange and the family strange... " (47 <sup>th</sup> Interview)	3	6%

the release of parents and the ability to work quietly for the safety of their child. Finally, the most important of all is that in this way, children are created who are able to accept their problems, who learn to manage their situation, and thus become autonomous and independent. Some SNs (3 in 50) said they did not consider contributing in any way to the inclusion of children in school. While 2 stressed that an important role plays the age of the child. The younger the children, the greater the benefit for them (see Table 3).

### Improving Suggestions

Finally, respondents were asked to propose some improvement suggestions. Their suggestions were gathered in the following categories: improvement of tasks, improvement of infrastructure, informing parents, teachers, and principals about the role of SN, the existence of an SN in every school, not for more than 2 incidents, at a specific level, and permanence, provision in case of absence of the SN, existence of a school doctor the cooperation with an external doctor for the entire school unit,

Table 4. Improving Suggestions

RESPONSE CATEGORIES	INDICATIVE RESPONSES	NUMBER OF RESPONSES	% RESPONSE RATE
Improvement of tasks	<i>"... The tasks list plays an important role ... that is to know everyone's role from the family itself to the teachers, but also the SNs themselves to know their role..." (21<sup>st</sup> interview)</i>	25	50%
Improvement of infrastructure	<i>"uh especially in large schools a place could be created where the nurse will have a bed... and where if something happens to a child... the nurse has everything there... than in other places, where other children pass by... in this respect ... the state could be interested and take over something like this ... a place would be very good..." (32<sup>nd</sup> interview)</i>	28	56%
Informing parents, teachers and principals about the role of SN	<i>" let all teachers know the responsibilities of SNs " (12<sup>th</sup> interview)</i>	22	44%
existence of a sn in every school, not for more than 2 incidents, at a specific level and permanence	<i>"it would be good to have in every school a SN... and not to move from school to school... to have one in each school and to take over all the children every year ... then something important ... uh to... at least since there is not that possibility at the moment... at least the nurses to be at certain ... levels of education ... i.e. primary to be primary... secondary to be secondary... kindergarten ... to be for kindergarten ... it's another story ... also changes the whole story... I think it's very important... because I see that many colleagues work half a week in an elementary school and another half a week to be... and that for me ... for the nurse ... is very basic..." (33<sup>rd</sup> interview)</i>	35	70%
provision in case of absence of the sn	<i>"I think that when there are more than 2 or 3 children... there should be another SN ... going on excursions with the other children... this is my opinion ... teachers will never take responsibility ... it would be important to have one person in the district who will replace you if something happens ... I can't honestly understand what will happen for example in case of pregnancy ... that workplace will... what? ... Will be left open? ... Without someone coming? With 4 children with CHC in this school? How will it happen? What will happen to the other children? The other child that his parents don't send to school at all when I'm not? What will happen? ... " (48<sup>th</sup> interview)</i>	4	8%

existence of a school doctor the cooperation with an external doctor for the entire school unit	"... to exist ... either there is ... or there is no problem ... to have a doctor and a nurse." (5 <sup>th</sup> interview)	7	14%
cooperation with other specialties (such as psychologists and social workers)	"And of course also in cooperation with other specialties ... such as psychologists ... uh because OK we are nurses ... we do what we do, but we are also dealing with children where their psychology plays a very big role ... especially when they have a chronic disease". (50 <sup>th</sup> Interview)	2	4%
create more official sn collections to defend their rights	"Should we say become a Nurses' Association... or make inquiries and tell everyone their opinion? ... It's like they took us and threw us and told us... "swim" ... what I did in the special ... it's uh hard in the general then something happens ... the nurse runs all the time ... " (26 <sup>th</sup> Interview)	2	4%
existence of a counselor	" ... if we were closer ... all together it would be easier let's say we ask for a counselor to exist for us... because we too have questions and we don't have someone to solve them..." (50 <sup>th</sup> Interview)	3	6%
pedagogical training of sn	"...Then it would be good to have a pedagogical education, because nurses don't know in most cases how to talk to children ... about how to communicate with children..." (46 <sup>th</sup> Interview)	2	4%
creation of a health education unit	"it would be nice and good... to teach children health education in case of injuries ... to learn ... not to learn uh... cardiopulmonary resuscitation ... but at least to know at least when you are drowning what to do ... simple basic steps that is to know them... and to exist in every school..." (13 <sup>rd</sup> interview)	17	34%
jurisdiction in the supply of medicinal products	"...Also allergy, it can happen to any child at any time ... you don't know when it's going to happen ... a child eats peanuts ... and shows an allergy ... there shouldn't be an adrenaline rush in school; Allergy acts too fast ... that is to lose a student because you couldn't intervene ... not even Jordan washes you off afterwards ... it's scary ... it's scary ... uh since there's the school nurse in schools ... let's get a little more European ... let's figure out what our limits are ... uh until we can intervene ... " (23 <sup>rd</sup> interview)	1	2%
compulsory educational seminars for all sn	Mandatory training seminars for all the SNs" it would certainly be good to have updates and seminars that concern all the SNs... this would be very important... most of them are held in big cities... I am on an island... how will I watch it... I will miss it... so it would be good to have them in other areas. Further education is necessary... " (43 <sup>rd</sup> Interview)	11	22%

cooperation with other specialties (such as psychologists and social workers), create more official SN collections to defend their rights, existence of a counselor, pedagogical training of SN, creation of a health education unit, jurisdiction in the supply of medical products and compulsory educational seminars for all SNs (Table 4).

## DISCUSSION

### *Role and Responsibilities*

The participants of our research highlighted the importance of communication and cooperation with parents. The SNs communicate and cooperate with parents and

guardians of children with CHC, as well as doctors, to collect data on the health of the child (Bergren, 2016; Best et al., 2018). The SNs invest a lot of time at the beginning of the year by recording the child's health course, studying the previous records, and talking with specialists in order to design a personalized health program that meets as much as possible the needs of students with CHC (Baisch et al., 2011).

As shown by previous research, the contribution of SNS reduces health-related barriers in the learning process (Best et al., 2018). Mickel and associates (2017) highlighted the contribution of SNS to the education of children in their condition and, specifically, asthma.

In addition, the SNs communicate with the educational staff of the school where the child attends in order to collect information about the health of the children (Bergren, 2016), discuss diagnoses, and formulate a personalized intervention program (PIP) (Carpenter et al., 2013; Engelke et al., 2014). According to Blackwell and coauthors (2017), the SNs develop personalized intervention programs (PIP) and personalized educational programs (PEP) for students returning to the learning process after diagnosis of concussion and PIP in emergencies for students with severe food allergies. Although this was a small sample, 42 out of 50 participants had not formed a PIP or PEP and expressed the opinion that something similar belongs more within the framework of the special school.

According to a 2017 survey, SNs use personalized counseling to support children with anxiety as well as children suffering from obesity problems (Muggeo et al., 2017). In addition, they speak in groups to children about disabilities and encourage students who have been diagnosed with a condition every day to ensure that they follow their treatments and observe the signs of their health (Blaakman et al., 2014). Similar support is provided by research participants to the children they support.

The statements of the participants of our investigation regarding his role appear to be consistent with the statements of the participants of the investigation of Mangena and Maughan (2015). When they were asked about their role in the school, they stated that they provide direct support to students, communicate with parents/guardians by phone to inform them about the health course of their child, help the child to access health services, and cooperate with local health agencies to promote the improvement of the health of all children. Training in the management of their condition also falls within their competence (Leroy et al., 2017).

### ***Benefits of being SNs in the school environment***

The research highlights the multiple benefits of having an SN in the school unit, both for the child with CHC and his family, as well as for the school and society as a whole. The most important finding is that students with CHC are given the opportunity to participate in the learning process, improve their academic performance, have a normal daily life, and feel safe.

The feeling of security is also transmitted to the family. Parents are not afraid to send their children to school because they know that a specialist is on their side and will be able to help them at any time if something happens. Moreover, as someone is constantly with their child, they are released and have the ability to work seamlessly or even to shape their daily lives differently. At the same time, the fact that SNs train students in the management of their condition facilitates the work of parents and reduces their stress. Of course, the most important role in this part is played by parents (they are the first to give the foundations in all areas to their children), but it is worth emphasizing the importance of the contribution of the SNs.

As shown by previous research (Francisco et al., 2017; Halterman et al., 2011), our study also showed that with the contribution of SNS, absences from school are reduced, days without symptoms and exacerbations are increased, the child's participation in various activities is improved, and most importantly, the child is given the opportunity to live a better quality life.

The results of a survey conducted in primary education in America from 1937 to 2013 highlighted the positive effects that the SNS has on the development of children in the field of health, as well as in the cognitive, emotional-psychological, and social fields. Extremely important is the fact that through the discussions at individual and group levels, the fight against bullying and violence was achieved (Lineberry & Ickes, 2015).

Everyone, even children, should be well aware of their health and be able to manage it. When appropriate education is provided to children with CHC from an early age, their readiness and ability to self-manage their condition increases. The research focused on asthma highlights how children trained in the management of their condition tend to have fewer symptoms and exacerbations in their daily lives, increasing their presence in school as well as their academic performance (Isik et al., 2020).

Improvement in health leads to better academic results (Miller et al., 2016). Research focused on asthma in primary school students revealed that the symptoms of this condition led to the absence of students from the

educational process and their low academic performance. Both sectors improved significantly with the existence of SNS. Specifically, the performance of the 40 students to whom the research was applied was similar to that of 76 children who were at low risk of developing asthma. The number of days children were absent fell from 5.8 to 3.7 (Moricca et al., 2013). The same research identified a large number of children who had been diagnosed with asthma but were not receiving appropriate medication, as well as children who had not been diagnosed with the familiar condition. The existence of the SN can solve this problem through direct observation, prevention, and intervention. It, therefore, promotes the improvement of the health not only of children with CHC but of the whole. All students benefit doubly. On the one hand, they are sensitized and learn to respect and live with the different, and on the other hand, they benefit from the support they receive from the SN (Blaakman et al., 2014).

Students with CHC feel safe when they are supported by SNs. The student population is constantly increasing, so the presence of the SN is considered necessary as it contributes decisively to the overall development of children. Support the development of their independence and the ability to manage their situation in order to become autonomous, but at the same time, their self-esteem is strengthened, and they are given the opportunity to plan with greater optimism for their future (Leroy et al., 2017). Their action is, therefore, not limited to prevention and intervention; being next to the children, they are able to constantly assess their needs and adjust the support they provide accordingly so that children with CPPD can become autonomous (Houlahan, 2018).

In a 2018 literature survey, which included 65 surveys related to SNS interventions, 17 out of 65 highlighted positive changes in children's health and academic outcomes. It is important to stress that none of the research linked the action of the SNS to negative outcomes. The majority of participants in this work stressed the stabilization of children's health (Best et al., 2018).

### ***Difficulties and obstacles faced by SNs***

The first obstacle that decisively hinders the work of the SNs, as revealed by the relevant research, is the lack of cooperation on the part of the parents. In a survey on the implementation of an anti-childhood obesity program, the SNS stressed that there was resistance to cooperation and communication on the part of parents. They did not want their children to participate in the program, as they believed they would be stigmatized and tagged.

In fact, there were several cases in which parents were offended by the recommendations of the SNS (Schroeder & Smaldone, 2017).

Some of the participants stated that, often, the school principals, who also coordinate the attitude of all teachers, do not accept the role of the SNs and resist their proposals. This view seems to be consistent with the findings of the research of Schroeder & Smaldone (2017).

A survey by Kruger and associates (2009) highlighted several obstacles. First of all, the cooperation of the SNs with teachers and the priorities of the education system. In this particular survey, the SNs said they felt undervalued by the educational community. Typical was the response of an SN when asked about his cooperation with teachers:

*“Being the only person relevant to health in the school environment dominated by teachers sometimes creates feelings of resignation when, for example, I want to make a presentation related to health.”*

The survey also highlighted the lack of logistical equipment, insufficient support, lack of a consultant to guide the SNS, the inability of parents to perceive the role, responsibilities, and duties of the SNS, the lack of cooperation with the child's doctor, the quality of the knowledge of the SNS, the lack of retraining, but also the workload (Kruger et al., 2009). Administrative issues, the non-acceptance of SNs by teachers, and the lack of a consultant who guides the SNs and validates the quality of their actions have a decisive influence on the effectiveness and efficiency of the SNs (Pufpaff et al., 2015). Interdisciplinary cooperation seems necessary in the context of providing appropriate assistance to enable students with CHC to participate freely in public education. More specifically, according to Finch and his colleagues, cooperation with school psychologists could lead to a deeper understanding of how to be followed to improve management and service delivery to this population of students (Finch et al., 2015).

The above results, in terms of the obstacles encountered by the SNs, are in line with the results of the relevant research. The most important, however, is the conclusion drawn from the research of Kruger and associates (2009), which is perfectly consistent with the views of the participants of our research. It is about recognizing the importance of the role of the SN and the need to have an SN every day in every school unit.

Another significant obstacle, which some of the participants stressed, was their knowledge. In particular, they stated that their initial knowledge was incomplete,

and this, combined with their limited experience, made them feel insecure and inadequate in terms of meeting the needs of students with CHC. It was, therefore, necessary to be constantly on the alert and to be informed of the new research data and developments. Minchella (2011) noticed that the SNS did not have the appropriate cognitive skills to support the needs of students with CHC. In particular, the participants of the survey stated that they felt uncomfortable with their knowledge and that the lack of experience did not allow them to meet the multiple needs of these students. This awareness clearly stands in the way of achieving the most basic role of the SN, The inclusive education of children with CHC (Minchella, 2011). Continuous information and continuous retraining are considered integral parts of the institution of the SNS. The continuous improvement of knowledge increases the confidence and effectiveness of SNS (Gormley, 2019).

The lack of logistical equipment, in addition, leads to the inability to meet the needs of children with CHC. The research focused on America highlighted that although America's health system is one of the best in the developed world, access to chronic care remains a problem for many as the system is not properly structured to provide such assistance (Stellefson et al., 2019).

Daughtry & Engelke (2018) presented the problematic communication and cooperation between parents and SNS due to the incomplete information of parents as to the duties of SNs.

Difficulty communicating with parents and lack of knowledge of the tasks of the SNs were highlighted by Brown and colleagues (2017) in research focusing on children with asthma and Attention Deficit Disorder - with/ or without hyperactivity. Parents of children with ADHD seemed reluctant to express concerns related to their child and thus avoided meaningful communication with the SNs.

The daily needs of students with or without CHC are many and multiple; the working time, however, is limited, and this results in increased workload and some students being neglected (Tiu et al., 2019). In the case of large school units, the duties of the SNs are increased. When this is combined with an unorganized school environment, with movements from one school unit to another, insufficient administrative support, additional bureaucratic work, lack of logistical equipment, and delays in drug deliveries, SNs are driven to work-stress-related burnout. (Fagerström & Vainikainen, 2014; Mohammadi et al., 2015; Pufpaff et al., 2015). Therefore, it is considered necessary to have a SN in every school whether there is or there is no child with CHC (Jameson et al., 2018).

Interesting is the fact that, as in Greece, SNs often cover the needs of 2 and/or more schools; the same applies abroad (Willgerodt et al., 2018). Covering many schools leads to challenges, and the number of schools covered can increase the likelihood of wrong actions (Maughan, 2018). Apart from the distance between the schools supported by the SN, the variety of problems students may have, as well as the social factors involved, such as the socio-economic background of the family or the child's mother tongue, may burden the work program (Jameson et al., 2018).

Contrary to our research, no other one has been identified that poses an obstacle or difficulty to the cooperation and communication of the SN with the child with CHC. Therefore, these findings are considered innovative.

### ***Inclusive education***

Participants stated that they contribute to the education of the child with CHC by informing and sensitizing all members of the school about the problems of children with CHC and regulating the health of students with CHC so that they are able to participate in the whole range of the learning process, intervening in an emergency situation and providing appropriate assistance and speaking personally with the child suffering from CHC, in order to accept and learn to manage their situation. In the international literature, there are few references to inclusive education. One of them is in the Minchella survey (2011), according to which Inclusive Education is not possible due to the level and quality of knowledge of the SNs combined with the lack of cooperation with special teachers. Musgrave & Levy stresses that for all those involved in the co-education of children with CHC, the practices they follow ultimately lead to their marginalization. This study also highlights the research gap in this area (Musgrave & Levy, 2019). More generally, it is argued that the level of knowledge, understanding, and experiences of teachers and SNs has a decisive influence on the achievement of inclusive education (Mukherjee et al., 2000).

In the past, the diagnosis of people with CHD also determined their development. The increase in the life expectancy of these individuals has increased their needs in all areas, especially in the field of Education (Reh et al., 2014). The existence of the SN in school units smooths out the obstacles. The individual ceases to be treated as a patient and passively and is given the opportunity to develop academically and socially as students of "typical growth."

The results showed that SNs experience, in several cases, crowding out and non-acceptance. Managers,

teachers, and parents often seem unaware of the exact role and responsibilities of the SNs. The lack of logistical equipment and appropriate infrastructure, among others, hinders the work of the SNs, but it seems that despite the obstacles, all participants are trying their best, and seeking to help both the children they support and the rest of the student population with whatever means they have. In general, the investigation of the difficulties and obstacles they face daily aims initially to highlight them. After all, the emergence of a problem is the first stage to solve it. The research suggests that an SN should be in every school, whether there is or there is no child with CHC, which will cover the needs of only one school so that it is more functional. At the same time, it is proposed to train the SNs continuously in order to increase efficiency and effectiveness.

The SNs take care of a number of children with complex needs every day, so it would be good to have a consultant who would guide them through advice and provide professional development plans in order to cover as much as possible the daily needs of both children with CHC and all other children. The main contribution of this institution is the education of children in the management of their condition, which can lead, on the one hand, to the improvement of their health and, on the other, to independence and autonomy.

Under these conditions, all children could be co-educated, and all have equal opportunities both in their inclusion in the educational process and in society. The institution of SN contributes decisively to the creation of a humanist school, a school for all.

## LIMITATIONS

There are some limitations to our research. Initially, the number of participants was limited due to a lack of time and financial resources. This is a limited investigation because it is part of a wider investigation. At the same time, the participants were not selected randomly, but through the avalanche method; that is, the researchers chose the individuals who best met the criteria to give their answers and contribute to the research as well as to help identify other members of the population. The results cannot, therefore, be generalized to the whole population of the SNs. It is important to stress that participation in the research was voluntary, so perhaps the participants had some special interest in this topic. The survey presents

only the personal views of the SNs and not the other stakeholder's views (principals, teachers, parents, but also the children with CHC themselves). Therefore, since the results were based on the views of the SNs, questions of subjectivity may arise. To reduce the degree of subjectivity, an extensive attempt was made to reconcile these results with the international literature. The majority of SNs surveyed (31 out of 50) had a 1 to 2-year experience in general schools. Perhaps the results would have been different if the participants' work experience had been larger. The number of men was less than that of women (8 men and 42 women).

## SUGGESTIONS FOR FUTURE RESEARCH

The research, as highlighted, focused on the experiences of SNs. Future research could highlight the experiences of teachers and parents of children with CHC in their cooperation with SNs, as well as their views on the role played by SNs in the co-education of students with CHC. Future research could also deal with the number of school units covered and the workload that SNs face on a daily basis in relation to the health outcomes of children with CHC. Another proposal would be to conduct research within the Greek borders that presents the economic benefits to society as a whole from the existence of SNs in the school unit. In addition, little has been explored in the international literature on the role of the SN in the transition of the child from hospital to school. At the same time, the current situation with the Coronavirus pandemic, which spread rapidly and overturned the everyday life of people worldwide (Francisco et al., 2020), imposes the need to research the actions of the SNS in this critical period, the services they provide, the way they inform, encourage, and organize various actions online, in order to keep students alert on basic hygiene and first aid issues. Finally, it would be important to investigate the role of the SN at the end of this pandemic, as students with CHC belong to sensitive groups and may be absent for a long time from the learning process.

## ACKNOWLEDGEMENT

None

## DECLARATION OF INTEREST STATEMENT

The author reported no potential conflict of interest.

## FUNDING

None

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