Nursing in schools:
How school nurses support pupils with long-term health conditions

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September 2016

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Acknowledgements

We would first and foremost like to thank all of the school nurses who took the time to complete the survey, giving us an insight into their role and profession. Thank you to you all.

We would also like to thank all individuals and organisations who helped us to share and promote the survey through twitter, social media and newsletters. Thanks in particular to Wendy Nicholson and Fiona Hill from Public Health England (PHE) for their assistance in distributing the survey to school nurses. Thank you also to Wendy for providing support and guidance in the report and her helpful comments on previous versions.

Within the National Children's Bureau (NCB) we would like to thank Puja Joshi and Eva Amalathas for their work on the survey and Richard Newson for his valued efforts promoting the survey via social media. Thanks also to Enver Solomon, Zoe Renton and Keith Clements for their invaluable guidance, advice and recommendations.

Executive Summary

This study

The role of the school nurse is multifaceted and supporting children and young people with additional health needs, including specific long-term conditions, is just one of many activities they are responsible for. The key responsibilities of the school nurse have evolved in response to local need, but the key principles are set out in the School Nurse Development Programme's (SNDP) *Getting it Right for Children, Young People and their Families* best practice guidance (Department of Health, 2012).

Children are healthier now than they have ever been, according to long-term trends (Department of Health and Deparment for Schools, Children and Families, 2009). Diseases such as scarlet fever, measles and whooping cough have virtually been eradicated (Day, 2009), possibly due to increased investment and focus on preventative public health. However, whilst these threats have reduced, there has been an increase in the prevalence in the school-age population of a number of long-term health conditions which have the potential to seriously impact on children's lives, including their participation in education, and can result in disadvantage later in adulthood.

Two years on from the introduction of the duty placed on schools to support pupils with medical conditions (through Section 100 of the Children and Families Act 2014 and the accompanying Department for Education (2014) statutory guidance) the National Children's Bureau (NCB) undertook research exploring school nurses' self-reported confidence across a range of different long-term health conditions that may affect pupils at school. We focused on five highly prevalent long-term physical health conditions in children and young people of school age, specifically asthma, epilepsy, diabetes, anaphylaxis and eczema. A recent article from the Royal College of Nursing draws on NHS workforce statistics to indicate a 13% fall in school nursing posts since 2010 (Royal College of Nursing, 2016), which highlights the increased relevance of this topic in the arena of children and young people's health. The survey achieved a response of 344 completions. Taking the Royal College of Nursing's (2016) estimate of the number of school nurses in England as 2,606, the estimated response rate for this survey stands at 13%.

Key Findings

Key findings from NCB's survey include that:

- School nurses are regularly working with pupils with many different types of additional health needs/long-term conditions. Nearly two thirds (61%) of the survey respondents indicated that they had experience of working with all the conditions asked about, namely asthma, epilepsy, anaphylaxis, eczema and diabetes.

- School nurses mostly self-reported that they are a dedicated and motivated workforce (only 12% reported lack of motivation) and appear to pull together as a profession and support each other (less than a third reported limited contact with other school nurses).

- The most common activities school nurses reported undertaking were educating school staff about long-term conditions (91%), making and receiving referrals (82%) and creating individual health care plans (79%).

- 90% of school nurses have been in their role for two years or more and those with more experience reported higher levels of confidence.

- School nurses reported that they had a large role in referral processes, with many reporting that they received referrals from a range of different internal and external professionals. The most frequent referrals came from teachers (89%), parents (84%) and senior school staff (79%).

- For four out of five of the long-term conditions asked about, over half of school nurses indicated they were confident or very confident supporting pupils with these needs, However, this confidence varied considerably between conditions. School nurses reported feeling most

- confident supporting pupils with anaphylaxis, with 82% responding that they were confident or very confident in their ability to support pupils with this condition. However, they were less confident supporting children and young people with diabetes (42%).

- School nurses reported working across more varied types of schools, and in line with earlier studies, that the average number of schools they work across remains high. Over a third (38%) of the sample reported that they worked in more than ten schools and 30% reported that they worked in 5 to 9 schools. Furthermore, the survey findings indicate that those working in 10+ schools were less confident in dealing with long-term conditions than those working in a smaller number of schools.

- The survey also revealed a number of challenges school nurses identified as impacting on their work and some of these Included: limited resources (91%), limited time (90%), high caseloads (98%), low levels of understanding of their role among parents (88%) and pupils (85%) and difficulties being aware of pupils with long-term health conditions (70%).

Recommendations

For **policy and practice**, it is recommended that:

1. The Department of Health works with Health Education England and with local education and training boards to secure and develop the recruitment and training of more school nurses to service the needs of an expanding role and a larger school population.

2. The Department of Health should maintain funding for public health services at a level that enables local authorities to commission the required levels of school nursing alongside other services.

3. Local authorities, providers of school nursing services, and schools, should pay attention to the preparation and dissemination of information about the role of the school nurse to pupils, parents and carers and school staff, including how to access the school nursing service.

4. The Department of Health, Public Health England and Health Education England should ensure that school nurses are provided with, and supported to, access training which enables them to maintain and further develop skills and confidence in supporting pupils with additional health needs.

It is recommended that **future research** is needed:

1. To understand the extent and scope of the impact that school nurses can have in supporting pupils with the health conditions explored in this study.

2. To follow up on the findings of this survey via qualitative interviews in order to gain further insight into school nurses' experiences of working with long-term health conditions, and also the impact on school nursing practice of working across a large or small number of schools.

3. To understand the perspectives and experiences of those who work with school nurses, including pupils themselves, parents/carers, community health professionals and school staff.

4. To explore the perspectives of school staff more broadly as to their perspectives and experiences of supporting pupils with additional health needs.

Study methodology

The study was comprised of two main elements: a review of both UK and international journal articles, policy documents and online resources/literature and an online survey of school nurses that was distributed via a range of sources. A snowball sample was employed to ensure wide dissemination and Public Health England supported this activity by sending out a link to the survey via a school nursing mailing list. The literature and policy review provided an understanding of key issues and challenges facing pupils with medical conditions (i.e. additional health needs) at school, with a specific focus on the perspective of school nurses. Findings from the review were used to shape the design of the survey questions which aimed to explore how confident school nurses felt supporting students with five different long-term conditions. A range of statistical methods were used for analysis; more details are provided in the methods section of the main report.

1. Introduction

1.1 The role of school nurses

The role of the school nurse is multifaceted and supporting children and young people with long-term conditions is just one of many activities they are responsible for. The key responsibilities of the school nurse have evolved in response to local need, but the key principles are set out in the School Nurse Development Programme's (SNDP) *Getting it Right for Children, Young People and their Families* best practice guidance (Department of Health, 2012).

A survey by the Royal College of Nursing highlighted that school nurses undertake a range of activities in schools, including health promotion (96%), educating school staff (94%), attending child protection conferences (82%), administering vaccinations (73%), and addressing bullying issues (65%) (Ball, 2009).

A review commissioned by the Department of Health in 2010 and conducted by a team of researchers from the Thomas Coram Research Unit (TCRU), Institute of Education (IoE), aimed to offer new insights into the various roles and responsibilities which nurses were expected to assume with respect to promoting the health of children and young people in schools (Chase et al., 2010). This report indicated the following:

- School nurses are highly valued when children, young people, their parents/carers and school staff are aware of who they are and what they do;
- Those children and young people who have received one-to-one support from school nurses reported that they had benefitted from and valued this involvement;
- Nurses make a unique contribution to addressing health issues relevant to school pupils;
- Nurses' clinical knowledge and the confidentiality of the school nursing service are particularly valued by children and young people;
- Young people valued the involvement of nurses in Sex and Relationships Education (SRE) and Personal, Social and Health Education (PSHE) sessions and often preferred talking to a nurse rather than a teacher about sensitive issues.

The review highlighted considerable variability with respect to what nurses do in schools to promote the health and wellbeing of pupils, the ways in which school nursing services are commissioned and managed, the skills mix of nurses working within schools, and also the resources school nurses could access. It also highlighted a number of significant challenges including that:

- The numbers of nurses working in schools was still below the target of having one qualified school nurse to every secondary school and its feeder primary schools;
- There were too few nurses, with many working on part-time and/or term time only contracts;
- Safeguarding and child protection work had increased significantly for school nurses in recent years, as had the pressures of national public health campaigns;
- The numbers of young people experiencing emotional and mental health difficulties were reported to be increasing;
- In many areas significant changes in commissioning arrangements were underway, as was widespread restructuring of nursing services as a result of service reviews and the need for better skill mixing and planning of capacity.

The review noted that these factors impact on nurses being able to engage sufficiently in health promoting and preventative work in schools and often lead to services being more reactive rather than proactive in their approach. Despite these challenges, however, the review concluded:

"Irrespective of these challenges, there is evidence that nurses working in school and community settings are enjoying increasing recognition and value…. New structural arrangements are leading to more integrated ways of working, with nurses working in closer partnership with a wide

range of other community and social care providers…. Nurses have the potential to work on a number of levels in, with and through, schools including offering one-to-one support to children and families, as well as a generic health promoting service to whole school populations."

(Chase et al., 2010, p.10)

1.2 Current research aims and objectives

A rapid review of the literature was undertaken at the start of this project, to explore how research has sought to understand the management of additional health need - in this case a number of specific long-term health conditions[1], from the perspective of school nurses. This revealed that existing research is somewhat limited across different long-term conditions and has mostly been conducted in the United States (e.g. Austin et al., 2010; Breneman et al., 2015; Fisher, 2006; Gau et al., 2002; Olympia, 2005)) or Japan (Sasaki et al., 2015). Our search revealed limited UK-based evidence exploring the management of long-term conditions in school settings (Marshall et al., 2013), with even fewer studies focusing on this from the school nurses' perspective (Boden et al., 2011; Marshall et al., 2013).

Two years on from the introduction of the duty placed on schools to support pupils with medical conditions (through Section 100 of the Children and Families Act 2014 and the accompanying Department for Education (2014) statutory guidance), the National Children's Bureau (NCB) wished to address this gap in the literature and undertake research exploring school nurses' self-reported confidence across a range of different long-term health conditions that may affect pupils at school.

The Department of Health's (2012) definition of long-term conditions is becoming increasingly broad, to encompass conditions such as HIV/AIDS, certain cancers and mental health issues (Naylor et al., 2012). However, for the purposes of this research we focused on five highly prevalent long-term physical health conditions in children and young people of school age, specifically asthma, epilepsy, diabetes, anaphylaxis and eczema. Further detail and prevalence rates of these can be seen in Figure 1 (page 10). The aim of this research was to add to the evidence base and offer a current, UK-based perspective to further understand schools' abilities to appropriately support pupils with these health needs in light of the guidance. Indeed, if nurses feel more confident, they are more likely to effectively support pupils, make appropriate clinical decisions that will benefit pupils (Hagbaghery, Salsali, & Ahmadi, 2004).

Specifically, the research aimed to explore school nurses' reports of:

- Their current role in supporting pupils with long- term conditions;
- How confident they feel supporting pupils with long-term conditions;
- What factors, if any, affect school nurses' confidence e.g. background, qualifications and working patterns;
- Challenges they face in supporting pupils with additional health needs, namely some of the long-term health conditions that are most prevalent amongst children and young people.

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[1] Department for Education (2014) statutory guidance refers to long-term health conditions as medical conditions although in practice such pupils are often referred to as having additional health needs

2. Literature and policy review

2.1 Children and young people with long-term conditions

Children are healthier now than they have ever been, according to long-term trends (Department of Health and Department for Schools, Children and Families, 2009). Traditional diseases, such as scarlet fever, measles and whooping cough have virtually been eradicated (Day, 2009), possibly due to increased investment and focus on preventative public health. However, these threats have now been replaced by the increasing prevalence of long-term health conditions such as asthma, diabetes, epilepsy, anaphylaxis and eczema.

The latest Health Behaviour in School Aged Children study revealed that 23% of young people aged 11-15 years old reported having a long-term medical illness or disability (Brooks et al., 2015). This represents an increase of 8% since 2010 (Brooks et al., 2011). Medical advancements in recent years have meant that more children and young people with particularly complex medical needs survive into adolescence and adulthood and can attend mainstream schools. However it remains the case that living with a long-term condition can have a significant impact on children and young people's lives, including their life at school (Gray, 2010; McDonagh & Hackett, 2008).

2.1.1   The importance of schools

School is undeniably a large part of any child or young person's life (McMurray, 2008), and therefore schools need to appropriately support all pupils. As well as being crucial for educational attainment, the school environment is also important for children and young peoples' vocational, social and psychological development (McDonagh & Hackett, 2008). As qualified nurses, school nurses are in a unique position within the health and education sectors to provide much needed support to pupils at school in terms of co-ordinating and delivering public health interventions (Department of Health, 2012). Moreover, they are also integral in the support offered to children and young people at school with long-term health conditions to help minimise any negative effects of their health needs on their school life and promote emotional wellbeing (Department for Education, 2012b).

There are many long-term conditions that may affect children and young people. For the purpose of this research, we have used the term 'long-term conditions' to refer exclusively to physical health conditions. The Department of Health currently defines long-term conditions in the following way:

> *"A long-term condition (LTC) is a condition that cannot, at present, be cured but is controlled by medication and/or other treatment/therapies."*

(Department of Health, 2012b, p.3)

As repeatedly highlighted by the statistics, there is an increasing number of children and young people with long-term conditions. Many children and young people's needs are such that they require significant support to manage their health and wellbeing and it can be particularly difficult and stressful for them when trying to manage their needs by themselves (Nabors, Lehmkuhl, Christos, & Andreone, 2003). Indeed, many young people with long-term conditions require medication – in one study, 59% of those with a long-term condition reported needing regular medication to help manage their condition (Brooks et al., 2015).

Although generally parents/carers are the port of call in supporting their child to manage their condition, children spend a large proportion of their time at school, away from their parents (Borgmeyer, Jamerson, Gyr, Westhus, & Glynn, 2005). Consequently, the support of school staff, and school nurses in particular, is essential in helping children and young people manage their conditions by providing support, signposting and appropriate, timely referrals.

Figure 1. Long-term condition descriptions and prevalence rates

Asthma

As the **most common long-term condition**, half of all children and young people who have a long-term condition experience asthma (Brent et al., 2015; Hagell, Coleman, & Brooks, 2015). Asthma UK (2015) estimated that **one in 11 children** and young people in the UK have asthma, which equates to approximately **three children in every classroom**. The UK has one of the highest prevalence rates of asthma symptoms for children worldwide, which places a large burden on the NHS. A child is admitted to hospital every 20 minutes due to an asthma attack and in 2011 alone, 18 children aged 14 and under died as a result of their asthma (Greener, 2015). However, up to two thirds of asthma related fatalities are avoidable and preventable (Asthma UK, 2015), which highlights the importance of careful management of the condition.

Epilepsy

Epilepsy is one of the **most common and most serious long-term neurological disorders** experienced by both adults and children. Over **63,000** children and young people in the UK are affected by this long-term condition (Joint Epilepsy Council, 2011). Epilepsy can develop at any age. However research has shown that incidence is highest during the first ten years of life (Godwin, 2009). Based on these figures, the Joint Epilepsy Council (2011) estimate that, on average, there is **one child in every primary school** and **five children in every secondary school** with epilepsy who needs to be suitably supported.

Diabetes

Diabetes UK (2015) reported that **31,500** children and young people under the age of 19 years have diabetes, with the majority of these (95%) having type 1. Diabetes can occur at any age, but the peak age for diagnosis is between **10 and 14 years** (Patterson, Dahlquist, Gyürüs, Green, & Soltész, 2009). It is especially concerning that there has been a **global increase** in the numbers of children and young people with diabetes since the 1950s (Gale, 2002), and **in 2000 the first cases of Type 2 diabetes in children were diagnosed** (Diabetes UK 2015). Prior to this, type 2 diabetes had been exclusively diagnosed in adults, but an increasing number of children in the UK are being diagnosed (Diabetes UK, 2012). This rise in childhood type 2 diabetes has been repeatedly linked to the simultaneous increase in childhood obesity: research has shown that 95% of children and young people diagnosed with type 2 diabetes are overweight and 83% are obese (Haines, Wan, Lynn, Barrett, & Shield, 2007).

Anaphylaxis

Although allergies are often mild, severe allergic reactions called anaphylaxis involving respiratory difficulties and circulatory shock can occur. It is estimated that **at least one child in every school** is severely food allergic and therefore at risk of anaphylaxis (Anaphylaxis Campaign, 2014). Although not commonly thought of as life-threatening, **five to 10 deaths** each year in the UK are attributed to anaphylaxis; with many of these deaths occurring in teenagers and young adults (Food Standards Agency, 2009). It is especially concerning that a fifth of all allergic reactions occur in the school environment (Leo & Clark, 2007)

Eczema

Eczema affects many children and young people at school: it is estimated that **one in five** children has eczema (NHS, 2014). Of those children and young people diagnosed, **80% develop the condition before they reach five years old** and a significant proportion develop it before they even turn one year old (NHS, 2014), showing that childhood eczema is relatively common, especially for primary-school aged children. By the time children reach secondary school age (age 11 years), around **half** of all eczema cases dramatically improve, and **two thirds** improve by the time the young person reaches 16 years old (NHS, 2014).

2.2 Policy context: schools' responsibilities

Considering the potential negative impact of living with a long-term condition, schools have measures in place to ensure children with medical conditions are fully supported in terms of both their physical health and their wellbeing. Schools and local authorities have a number of long-established duties regarding how they support their pupils. For example, the Education Act (2002), Children Act (1989; 1996; 2004) and NHS Act (2006) include duties on schools and local authorities to: promote the wellbeing of pupils, safeguard pupils; have an appropriate plan in place in health emergencies; and provide children who are unable to go to school due to a medical condition with alternative suitable education. The Health and Social Care Act (2012) and the NHS *Five Year Forward View* (NHS England, 2014) form the basis of the current policy and legislative context for school nursing and other health services, highlighting the importance of prevention and public health approaches. One significant change made by the Health and Social Care Act (2012) was the transfer of responsibility for commissioning public health services, including school nursing, from NHS Primary Care Trusts to local authorities. While local authorities are required by regulations to commission certain public health services, school nursing is not one of these. Local authorities have generally continued to commission school nursing services in line with previous provision and school nurses themselves continue to be employed by NHS provider trusts. Schools can also independently commission services, or jointly fund provision in partnership with local authorities and in some areas of the country, local authorities have already started to do this.

Some children with long-term conditions may be classified as having special educational needs and therefore are covered by a dedicated legal framework for meeting their needs (Department for Education and Department of Health, 2014). However, the Health Conditions in Schools Alliance (2013) raised a number of longstanding concerns that not enough was being done by schools to support children and young people with long-term conditions. Subsequently, new legislation was introduced for those pupils with long-term conditions that would apply regardless of whether a child was deemed to have special educational needs. Section 100 of the Children and Families Act (2014) placed a duty on schools to make arrangements to support pupils at their school with medical conditions (generally referred to by school nurses in practice as children with 'additional health needs'). This was accompanied by statutory guidance (Department for Education, 2014) which set out what schools and various staff and professionals should do to ensure this duty is fulfilled. This new duty aimed to ensure that:

"All children with medical conditions, in terms of both physical and mental health, are properly supported in school so that they can play a full and active role in school life, remain healthy and achieve their academic potential."

(Department for Education, 2014, p.5)

Central to the statutory guidance were the responsibilities set out for school nurses. These include notifying the school when a child has been identified as having a medical condition which will require support in school, supporting the development of individual healthcare plans, liaising with lead clinicians locally on appropriate support for children and supporting the training needs of staff. As registered nurses, school nurses are the most qualified people in the school to co-ordinate support for children with long-term conditions, including educating other school staff and liaising with a multi-disciplinary team in and outside of the school (Council on School Health, 2008).

Public Health England (2016) recently added to the policy landscape and published new non-statutory guidance on the role of school nurses. This includes a joint model service specification for health visiting and school nursing. The specification makes limited reference to the Department for Education's (2014) statutory guidance but, consistent with the guidance, states that school nurses should contribute to the development and co-ordination of individual healthcare plans for children with additional and complex health needs. This underlines the fact that supporting children with long-term conditions is one of many things that school nurses are expected to do.

The school nursing role has changed dramatically over the last 25 years. Today the school nurse is a qualified nurse holding an additional specialist community public health qualification which allows

them registration on Part 3 on the Nursing and Midwifery Council Register (Department of Health, 2012; Jenkins. 2016). They are considered to be specialist practitioners, with advanced and specialist knowledge, working across the education and health sectors, providing the much-needed link between school, home and the community (Royal College of Nursing, 2012). The guidance from the Department for Education (2014) and Public Heath England (2016) provides a unique opportunity for school nurses to once again reaffirm this position as a specialist public health practitioner. They can valuably use their knowledge, experience and expertise to support the delivery of the Healthy Child Programme (5-19 years) and help schools meet the responsibilities set out in the newly implemented duty (Department of Education, 2014), with the aim of ultimately improving the physical health and emotional wellbeing of children and young people (Wright et al., 2012).

2.3   Research about the role of school nurses and supporting pupils with additional health needs

Whilst there are fundamental differences in the role of school nurses in other countries, it is useful to consider international as well as UK-based research to understand the important role school nurses play. For pupils with long-term health conditions specifically, they have been shown to be an integral part of ensuring they are well supported, and act as the much-needed link between schools, families and pupils. When health conditions are managed well through collaborative working between schools, pupils and parents, children generally have few symptoms, attend school daily, participate in physical activity and trips, and keep up with their schoolwork.

Research from the USA has highlighted that, in schools with a full-time school nurse, students with asthma missed significantly fewer school days than pupils in schools with only a part-time nurse (Telljohann, Dake, & Price, 2004) which can positively influence attainment. Further research in the US has also shown that the content of pupils' health records was much more complete following the introduction of a school nurse to a school, compared to schools without a nurse (Baisch, Lundeen, & Murphy, 2011). Positively, research has shown that full-time school nurses, as opposed to part-time school nurses, helped to improve the overall wellbeing of those living with a chronic condition and had a positive impact towards improving their health and academic outcomes (Biag, Srivastava, Landau, & Rodriguez, 2015).

2.3.1   Impact of limited support for pupils with long-term conditions

Without appropriate support, missing school remains one of the most likely side effects of having a long-term condition, whether this is directly due to feeling unwell from the condition, medical appointments or hospital admissions (McDonagh & Hackett, 2008). Such absences can have a detrimental effect on children and young peoples' ability to learn and, consequently, their educational attainment (Department for Education, 2015). Illustrating this point, the Department for Education found that the higher the percentage of missed lessons across Key Stage 2 and 4, the lower likely level of attainment at the end of that key stage. At GCSE level specifically, those pupils with no school absences were 1.5 times more likely to achieve five or more GCSEs A*-C or equivalent and 2.8 times more likely to achieve five or more GCSEs A*-C or equivalent, *including* English and Mathematics, than were pupils who missed 15-20% of their Key Stage 4 lessons (Department for Education, 2015).

Specifically for diabetes, children with the condition were found to miss ten more school days than their non-diabetic siblings (Parent, Wodrich, & Hasan, 2009). Similarly, children with asthma were found to miss an average of 1.5 more school days compared to those students without asthma, and this rate of absenteeism was observed to increase with the severity of the child's asthma to an average of 11.6 missed days for students with severe persistent asthma (Moonie, Sterling, Figgs, & Castro, 2006).

In addition to being at an increased risk of missing school days, children and young people with long-term conditions who are not appropriately supported are also at risk of not being able to fully participate in school life, even when they do attend school regularly. Research has highlighted that nearly half of those with asthma had difficulties joining in with general lessons and three-quarters had

problems joining in with sports or PE lessons (Asthma UK, 2009).

Similarly, research looking at medical conditions more generally revealed that children and young people frequently described experiencing alienation and missing out on social and educational opportunities at school (Sartain, Clark & Heyman, 2000). Arguably, the biggest emotional issue for children and young people with a long-term condition is this feeling of missing out and being treated differently from their peers (Gray, 2010; Long-Term Conditions Alliance Scotland, 2010), which may increase their risk of vulnerability to bullying, socio-emotional difficulties, self-esteem problems and mental health issues (Eiser, 2003; Department for Education, 2014).

Children and young people with a long-term condition, and without the appropriate support, are at an increased risk of stress, anxiety and depression; this risk is greatest at times of transition, during examination periods and before and after medical procedures and admissions to hospital (Gray, 2010; Long-term Conditions Alliance Scotland, 2010). Ultimately, the lives of children and young people with long-term conditions are both physically and emotionally more challenging, compared to their healthy peers (Woodgate, 1998). As such, they need support to manage their condition and minimise any negative life experiences associated with their long-term condition.

2.3.2   School nurses' ability to support pupils with long-term conditions

In a toolkit published by the Royal College of Nursing (Royal College of Nursing, 2014), it is noted that:

"Children and young people's complex needs can include a whole range of conditions that affect their access to education… children with particular health needs can be receiving their education in any type of educational setting, and their conditions will range from mild, seasonal asthma to technological dependency. It is part of our work as school nurses to offer equitable access to all these children and young people… School nurses will often work with other agencies to ensure expert guidance."

(Royal College Nursing, 2014, p.25)

The Department of Health and Public Health England report - Health visiting and School Nurse Programme: Supporting implementation of the new service offer - Promoting emotional wellbeing and positive mental health of children and young people, (2016) sets outs a model of school nurses offering support at four levels. Specifically thinking about how school nurses may support pupils with long-term health conditions:

- At the **Community** level, school nurses work to ensure the early identification of risk factors in the school population and act upon health concerns to offer advice and guidance.
- At the level of **Universal Services**, school nurses ensure the assessment of health and wellbeing need and early identification of risk factors and provide health checks to indicate developmental concerns and delays. They should also ensure support for health promotion and change management activity around identified health issues.
- At the level of **Universal Plus,** identified school nursing tasks including using evidence-based interventions or specific packages of care for identified health need, using research based approaches to continual assessments and interventions; school nurses also provide referrals to appropriate specialist services such as Child and Adolescent Mental Health Services (CAMHS).
- At the level of **Universal Partnership Plus,** school nurses should use evidence based targeted programmes to promote health in school and community settings, inform other professionals about health needs of the child, young person and family and use local multi-agency tools for assessments.

International research has noted that parents and school staff have concerns that schools, including those with school nurses, struggle to support and care for children and young people with diabetes (Schwartz, Denham, Heh, Wapner, & Shubrook, 2010). Similarly, in the Department for Education's

(2014) statutory guidance, there is an acknowledgement that parents of children with long-term conditions worry that their children's health will deteriorate whilst they are at school, suggesting some parents or carers possibly have reservations about how well schools have previously supported children with medical conditions.

Despite school nurses having been identified as playing a key role in supporting children and young people with additional health needs at school, their ability to do this is dependent on a number of things, including school nurses' knowledge base, competence and confidence - key issues that were explored in NCB's survey which informs this report. In addition, the number of school nurses available to support an ever-growing school population with increasing rates of long-term conditions is a critical factor to be considered (Henshaw, 2015).

2.3.3 Number of school nurses employed

Recently, the Royal College of Nursing drew upon NHS Workforce Statistics to reveal the number of school nursing posts has fallen by 13% since 2016, with just 2,606 school nurses left in the UK (Royal College Nursing, 2016). Work by Henshaw (2015) has also revealed that there are just under 1,200 qualified school nurses currently working in schools in England. Earlier research carried out by the TCRU for the Department of Health (Chase et al., 2010) concluded that the number of school nurses in schools was below national targets; there were not only too few school nurses overall, but also, too many working on a part-time and/or term-time only basis. Considering the breadth and importance of the school nurses' role, the findings from an international survey carried out by Lange, Jackson and Deeb (2009) are also important to consider. This found that the UK was one of 14 countries where less than 25% of schools had a school nurse and even in schools where there was a school nurse, they were often shared between many different schools (Lange et al.,2009). The Royal College of Nursing added to this evidence base for the UK specifically, highlighting that the average number of schools a school nurse worked across was 6.9 (Ball, 2009).

In 2004, the Department of Health's white paper *Choosing health: Making healthy choices easier* (Department of Health, 2004), emphasised the need to increase the size of the school nursing workforce, recommending that by 2010 every cluster of primary schools and their related secondary school in England should have a full-time, year-round, qualified school nurse looking after the health needs of pupils. Based on earlier estimates of the number of schools in England, it was estimated that around 3,344 full time equivalent *qualified* school nurses would be needed to meet the objective set out (Day, 2009). Six years after this ambitious target was due to be met, Henshaw's figure of 1,186 qualified school nurses indicates there was still some way to go – as do the more recent figures revealed by the Royal College of Nursing of just 2,606 nurses (Royal College of Nursing, 2016).

Despite this longstanding shortage of school nurses in the UK, in a study in 2009 (Ball. 2009) over half of school nurses expressed satisfaction in their roles, a level of satisfaction that had remained stable since 2005 (Ball & Pyke, 2005). School nurses reported their relationships with pupils and their families, making a real difference to the health of pupils and the diversity of the job as some of the most satisfying aspects of their role. Furthermore, the vast majority (82%) felt their contribution was valued by the schools they work with, suggesting that school nurses are overcoming the potential risks associated with a shortage of nurses, namely increased levels of emotional distress and decreased levels of job satisfaction (Ruggiero, 2005).

However, this does not mean that school nurses were not aware of the shortage within their profession. Workload and staffing issues were a concern for many school nurses, with less than a fifth reporting that there were sufficient nurses in their area and just over two thirds agreeing their workload was too heavy (Ball, 2009). Given the Department for Education (2014) statutory guidance, it is more important than ever that school nurses receive the support they need to be able to invest the time and resources into supporting pupils with additional health needs and educating other school staff, given their integral role as set out in the guidance.

Another source of frustration for the school nursing workforce related to limited funding, minimising scope for the development or delivery of services (Ball, 2009). There has, however, been much change in the commissioning of school nursing services since 2009 and the true impact of these on

school nurses has not been fully explored through detailed research. Indeed, the recent move to local authority, as opposed to NHS, commissioning for school nursing services has been met with uncertainty. While funding for public health services is currently ring-fenced, there are many competing priorities in this area and pressure on local government budgets.

In recent years, the Department of Health has made cuts to the public health grant, with many speculating that local authorities will now look to cut down on health visiting and/or school nursing (Nursing Times, 2015). On a more positive note, some local authorities are exploring how to work collaboratively on children's health and social care which may provide opportunities to use limited resources move efficiently over a larger geographical area. Similarly, Government sees a role for academy chains in commissioning services for the pupils of their member schools (Department for Education, 2016). However, the fact that the principal source of funding for school nursing is being reduced must still be seen as one of the biggest challenges facing the profession.

2.3.4 School nurses' confidence

Internationally, it appears that school nurses themselves sometimes share parents' and other school staffs' concerns in the ability of schools to support children and young people with long-term conditions (Schwartz et al., 2010). Again, it must be stressed that much of the existing research on this issues does not come from the UK, where the school nurses' role is distinctly different. However, with a limited evidence base in the UK exploring school nurses' confidence in working with pupils with long-term conditions, these studies provide interesting learning about potential factors that may impact upon school nurses' confidence to support pupils with their long-term health conditions.

These factors include: the length of time they have worked as a school nurse; whether or not they have direct experience supporting children and young people with long-term conditions and whether or not they have received any specific training. Many of these factors were explored in NCB's survey.

The findings from previous international research are briefly outlined below to provide background context (but as noted earlier, should be interpreted with caution due to the differences with UK school nursing provision).

Direct experience supporting children and young people with specific long-term conditions has been linked to school nurses' levels of confidence. For example, Fisher (2006) found that school nurses who had previously supported, or participated in supporting, a pupil with diabetes and helped them with their blood glucose level monitoring were more likely to report greater self-efficacy and confidence supporting other pupils with that condition than nurses with no experience of supporting a pupil with diabetes.

Training has been found to have a positive impact on school nurses' confidence. Not all school nurses have years of experience, nor will they necessarily have the opportunity to directly work with and support children and young people with specific conditions and it is positive that training can have similar effects on nurses' confidence. As an illustration, after participating in a bespoke training programme for school nurses, *Managing Students with Seizures*, designed to educate school nurses on strategies and resources for handling emergency situations such as seizures, it was observed that school nurses' confidence handling seizures at school increased (Austin, Kakacek, & Carr, 2010). Notably, those nurses with the least prior experience of supporting pupils with epilepsy gained the most from the training programme in terms of increasing their confidence. With regard to diabetes, a continuing education programme for school nurses called *Helping Administer to the Needs of the Student with Diabetes in School* (H.A.N.D.S), which provided up-to-date evidence-based clinical information for the management of diabetes in schools, also produced clearly positive results. A 38-40% increase in the number of school nurses able to interpret blood glucose tests for hypo- and hyperglycaemia was reported, also a 23% increase in the number who could independently administer syringe and pen-device insulin and a 38% increase in the number who felt confident planning and making arrangements for diabetic pupils at special events, such as school trips (Breneman, Heidari, Butler, Porter, & Wang, 2015).

Likewise, Sasaki et al. (2015) observed similar increases in school nurses' self-efficacy after participating in workshops for the management of children with life threatening allergies, and at risk of anaphylaxis. Training has been shown to help subdue any feelings of anxiety about supporting children with unfamiliar and life-threatening conditions, and to improve school nurses' levels of knowledge which in turn, builds their confidence in their own ability to support these pupils (Boden et al., 2012; Siminerio & Koerbel, 2000; Smith, Chen, Plake & Nash, 2012).

2.4 Summary

This literature and policy review has highlighted both the important role of school nurses in England, as well as the impact that living with a long-term condition or additional health need, can have on a child's life. As such, NCB's research aimed to further explore school nurses' experiences of supporting students with long-term conditions. The following sections present the survey methodology and findings.

3. Methods

The **review of literature** included journal articles, policy documents, online resources and reports to identify existing relevant research, both within the UK and internationally (whilst acknowledging that the school nurses' role is different across the world). This literature and policy review provided an understanding of key issues and challenges facing pupils with medical conditions and additional health needs) at school, with a specific focus on the perspective of school nurses. Findings from the review were used to shape the design of the research questions and the development of a survey for gathering further data from school nurses.

The **survey** that NCB developed for completion by school nurses was made up of 20 questions. These sought to build on knowledge about this important role through exploring how confident school nurses feel supporting students with additional health needs, more specifically, five different long-term conditions: asthma, diabetes, epilepsy, anaphylaxis and eczema (selected due to their high prevalence in school-aged children and young people). In order to help develop an understanding of factors that might affect school nurses' confidence, questions to get an insight into school nurses' background, qualifications and working patterns were included. In addition, questions were also asked to explore what activities they were involved in with regard to supporting children and young people with long-term conditions, and any challenges that acted as barriers to supporting pupils. Furthermore, school nurses were asked for suggestions for how to possibly overcome any barriers to ensure school nurses are able to carry out their valuable responsibilities in the most effective way possible.

Figure 2. Survey promotion methods[2].

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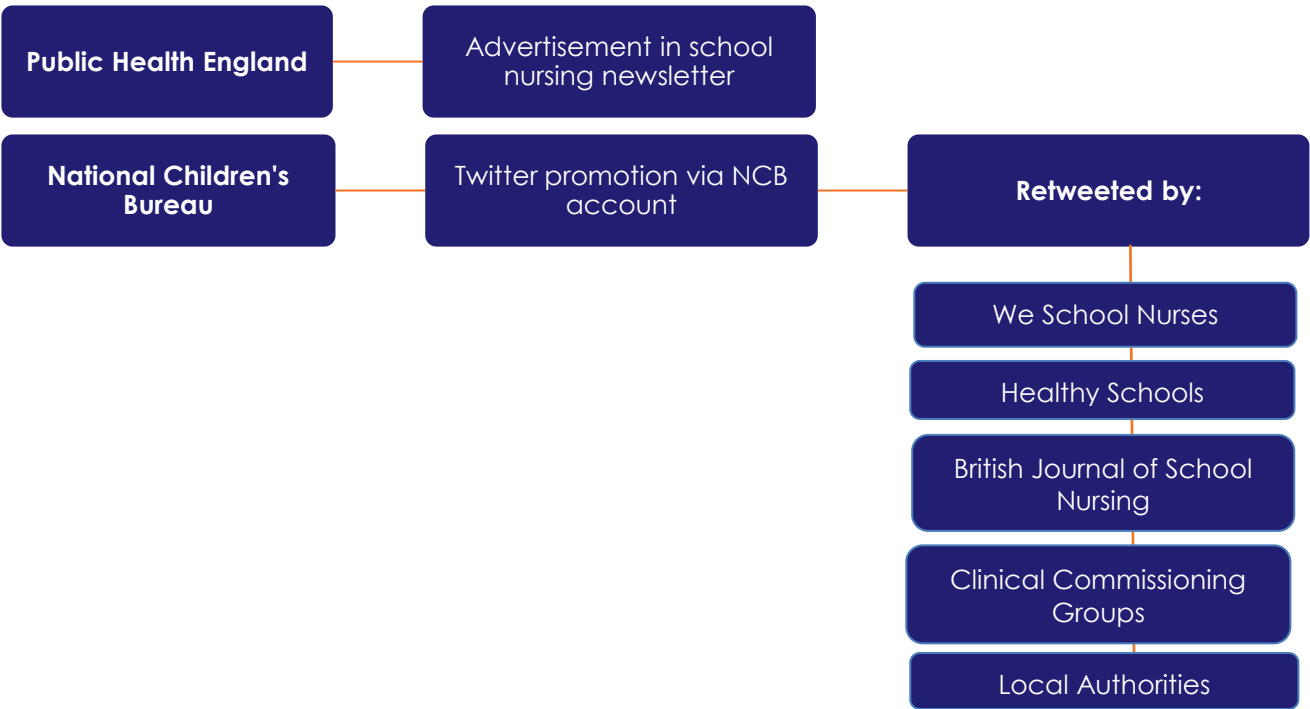
[2] The survey was retweeted by various individuals and organisations. Examples have been presented in Figure 2.

An online survey link (using SNAP survey software) was distributed via a range of sources within the school nursing sector in September 2015. A snowball sample was employed, whereby Public Health England sent out the link to the survey via a school nursing mailing list to over 200 school nurses in England. Furthermore, Public Health England and the National Children's Bureau's social media accounts helped to distribute and promote the survey.

The survey was left open for approximately 4.5 weeks. The survey achieved a response of 344 completions. Taking the Royal College of Nursing's (2016) estimate of the number of school nurses in England as 2,606, the estimated response rate for this survey stands at 13%.

A range of statistical methods were used for analysis, in line with the data type and research questions, including descriptive statistics, *t*-tests and analyses of variance (ANOVAs)[3]. More details of the statistical approaches taken can be found in the findings. Missing data has been included in the analysis and percentage calculations throughout. Subsequently, not all percentages total 100%,

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[3] It is commonly accepted that parametric tests can be used with interval levels of measurement due to the overstating of importance of measurement levels according to Langdridge and Hagger-Johnson (2013). In some cases, the assumption of normal distribution was violated. However, as Howell (2002) argues, moderate departures from normality do not have a strong effect on the results. Where Mauchley's test of sphericity was significant, the Greenhouse-Geisser and Huynh-Feldt were used.

4. Survey findings

This research focuses on five highly prevalent long-term conditions for school age children and young people and this chapter is divided into two key sections. The first looks at how school nurses support pupils with long-term conditions and presents descriptive statistics regarding the activities they are involved in, referral pathways and any challenges they reported facing. The second section focuses on their confidence supporting pupils with these conditions and presents more in-depth statistical analyses to gain a better understanding of the factors that may affect their confidence.

4.1   School nurses' qualifications

Respondents were asked about whether or not they held the Specialist Community Public Health Nursing (SCPHN) qualification. The SCPHN is a Masters or post-graduate diploma level qualification that helps qualified nurses develop a critically informed understanding of contemporary issues in community and primary care, as well as encouraging a multidisciplinary way of working with other professionals within the community. Of the 344 respondents, 60% (*N* = 208) indicated that they had, or were working towards, a SCPHN qualification. Recent qualitative research with former students has highlighted the benefits of this qualification. These included a changed view of school nursing after the course, nurses having a more proactive view which reflected a changed way of working and increased levels of knowledge about their profession and its public health focus (Jenkins, 2016).

4.2   How school nurses support pupils with long-term conditions

4.2.1 Long-term conditions

School nurses reported experience of supporting pupils with many different types of long-term conditions as can be seen in Table 1. Over three quarters of nurses reported previous experience of supporting pupils with each type of long-term condition. Approximately two thirds of school nurses (61%; *N* = 211) had experience working with all long-term conditions asked about, whilst only 4% (*N* = 15) of respondents indicated that they had no experience supporting pupils with any of the long-term conditions. These findings indicate that the overwhelming majority of school nurses have direct experience supporting pupils in their schools with long-term health needs.

Table 1. School nurses' experience supporting pupils with different long-term conditions (*N* = 329) [4].

Long-term condition	*N*	Percentage
Asthma	314	91%
Anaphylaxis	309	90%
Epilepsy	286	83%
Eczema	266	77%
Diabetes	260	76%

4.2.2 Activities and referrals

It is clear from research that school nurses undertake a wide variety of roles (Cheshire East Council, 2014; Chase et al., 2010; Ball 2009; Ball & Pike, 2005). When asked about nine common roles they may play in supporting children and young people in schools with long-term conditions, approximately or over two-thirds of respondents reported involvement in each of the activities asked about, with the exception of making initial assessments. Figure 3 illustrates this.

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[4] Percentages in the table allow for missing data and therefore may not total 100.

Figure 3. School nurses' involvement in activities to support pupils with long-term conditions (N = 343).
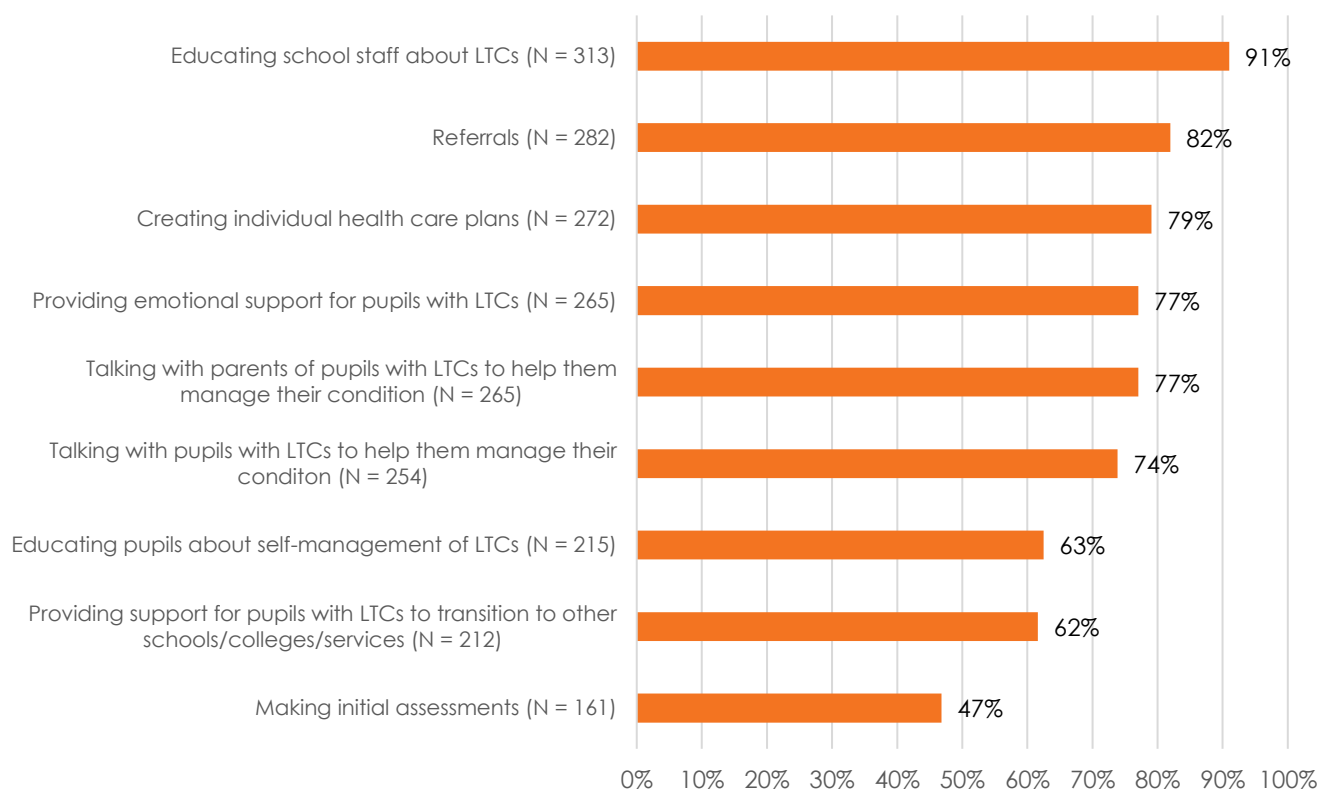
As shown in Figure 3, the most common activities were educating school staff about long-term conditions (91%), making and receiving referrals (82%) and creating individual health care plans (79%). Considering the Department for Education's (2014) guidance on the management of pupils with medical conditions in schools, it is encouraging to see that the majority of school nurses reported being involved in activities outlined in this document. Specifically, school nurses were required to support staff in implementing children's health care plans, through advice, liaison and training. As such, it is particularly positive that the majority of school nurses reported providing this advice and training to staff, and over three quarters were also involved in the development of health care plans.

School nurses also clearly had a large role in referral processes; nurses reported receiving referrals from various different professionals (Figure 4). It was found that they received referrals from other school nurses and community and hospital based healthcare professionals. However, the majority of referrals still came from teachers (89%), parents (84%) and senior school staff (79%). This indicates that other health care professionals, such as GPs and paediatricians, are fulfilling their duty outlined in the guidance of notifying the school nurse when a pupil has a medical condition and supporting the school nurse with caring for the pupil. It appears that parents are similarly fulfilling their duties outlined in the guidance whereby they are keeping the school up to date with information regarding the child's medical needs. The various different referral methods school nurses experience also suggest positive progress towards ensuring this multi-agency approach is adopted.
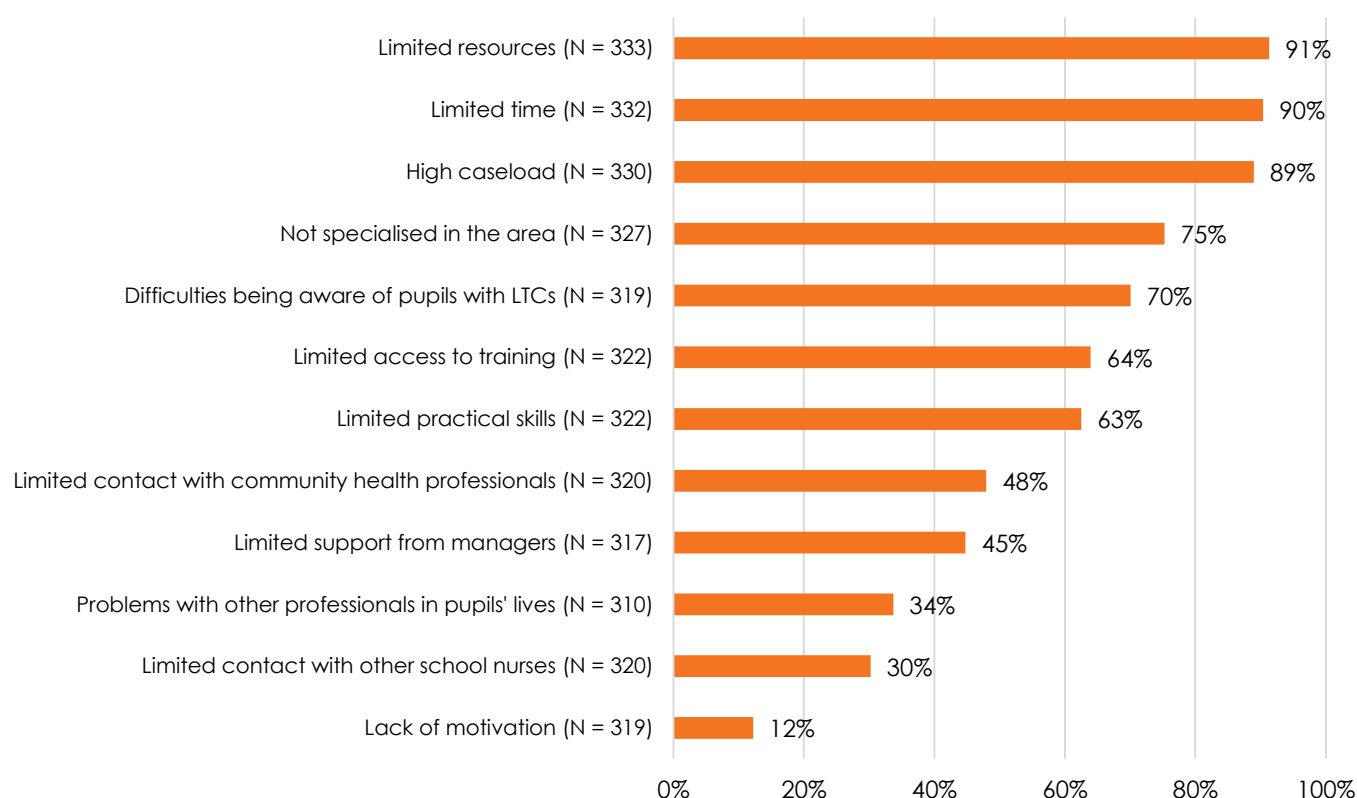
Figure 4. Referrals of pupils with long-term conditions into school nursing service[4].
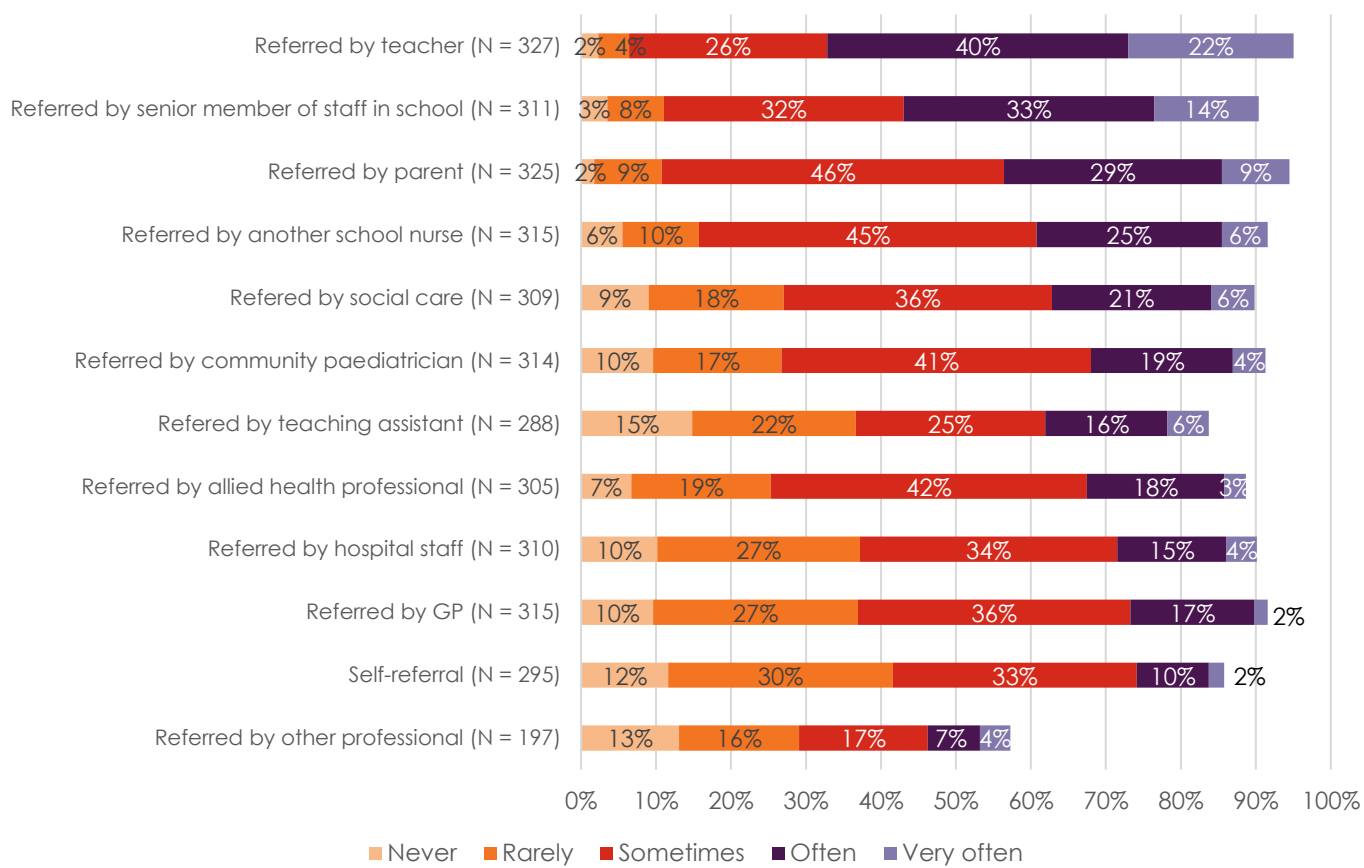
4.2.3 Challenges

It is positive that school nurses mostly self-reported that they are a dedicated and motivated workforce (only 12% reported lack of motivation) and appear to pull together as a profession and support each other (less than a third reported limited contact with other school nurses).

Despite this positive progress towards more integrated working, school nurses did report that they experienced some challenges in their role supporting pupils with long-term conditions. These challenges are well documented for school nurses and do not come as a surprise considering their role encompasses a varied range of activities. The most frequently reported school-based challenges, as can be seen in Figure 5, were having limited resources (91%), limited time (90%) and a high case load (89%).

Figure 5. School based challenges experienced by school nurses.

Challenge	%
Limited resources (N = 333)	91%
Limited time (N = 332)	90%
High caseload (N = 330)	89%
Not specialised in the area (N = 327)	75%
Difficulties being aware of pupils with LTCs (N = 319)	70%
Limited access to training (N = 322)	64%
Limited practical skills (N = 322)	63%
Limited contact with community health professionals (N = 320)	48%
Limited support from managers (N = 317)	45%
Problems with other professionals in pupils' lives (N = 310)	34%
Limited contact with other school nurses (N = 320)	30%
Lack of motivation (N = 319)	12%

These challenges are similar to what school nurses reported in 2009 (Ball, 2009) where two thirds of school nurses considered their workload to be too heavy and did not feel there were adequate school nurses in their area (and thus they had high caseloads) and a further two fifths did not believe they had the appropriate resources needed to do their jobs well (Ball, 2009). Factors such as these have the potential to influence early retiring decisions (Buchnan, 1999; Meadows, 2002; Storey, 2006; Watson, 2003; Wray, 2006). However, it is particularly encouraging that the findings in terms of the workforces' motivation also appear to be consistent with findings from 2009 which observed a dedicated, motivated and valued workforce that felt valued in their role (Ball, 2009).

Nearly half of school nurses did feel that parents were interested and engaged in their child's long-term condition/additional health needs and support at school, suggesting many parents recognise the importance of effectively managing long-term conditions at school and the integral role the school nurse plays within that cycle. However, the majority of school nurses also reported a lack of understanding of the school nurses' role from both parents (88%) and pupils (85%) (Figure 6).

Figure 6. Challenges experienced by school nurses when engaging with children and families[4].

Lack of understanding about your role from parents (N = 330) 88%

Lack of understanding about your role from pupils (N = 330) 85%

Lack of communication with parents (N = 330) 82%

Lack of understanding of LTCs from pupils (N = 329) 80%

Lack of understanding of LTCs from parents (N = 331) 78%

Lack of interest from parents regarding LTCs (N = 326) 56%

0%   20%   40%   60%   80%   100%
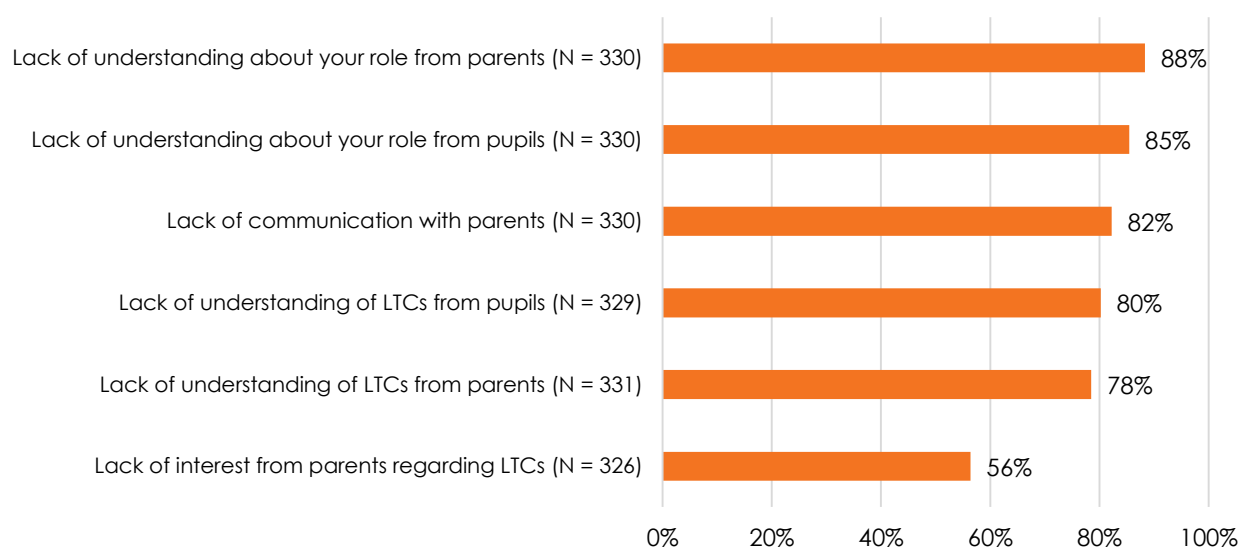
Whilst school nurses reported some lack of understanding about their role from pupils, it was unclear how many pupils this challenge related to. It is encouraging that 40% of secondary school students has visited their school nurse in the last 12 months (Cheshire East Council, 2014). Similarly, in a survey by the British Youth Council (2011), over half of pupils said that they knew who their school nurse was, suggesting that this challenge around understanding of the school nursing role may be limited to less than half of pupils. However, the survey by the British Youth Council also highlighted that only a minority of pupils knew where they could access information about who their school nurse was (if they did not know) or how they could contact their school nurse. The Department of Health (2012) echoed these findings in their *Getting it Right for Children, Young People and Families* best practice consultations, where children, young people and parents collectively wanted the school nurse to be more visible and more information provided as to what they might be able to offer help and support with. This suggests that both pupils and parents/carers recognise the value of the school nurse and want to engage with the services on offer.

With various government documents outlining the important role of the school nurse (Department of Health, 2012; Department for Education, 2014; Public Health England, 2016), there is a renewed opportunity to inform pupils and parents/carers about the role school nurses play within schools and reduce the lack of understanding previously expressed by pupils, parents/carers (British Youth Council, 2011; Department of Health (2012)) and school staff (Stockman, 2009).

For additional health needs/long-term conditions specifically, it is understandable for pupils and parents/carers to express limited clarity about the role of the school nurse, given the recent policy changes. Statutory guidance for schools (Department of Education, 2014) only came into effect fairly recently and in 2015, the Department of Health (2015) issued new guidance allowing schools to hold spare emergency inhalers for students with asthma, where this was previously illegal.

Overall, it appears that recent years have been marked by significant changes within the education and health sectors with regard to schools' management of children and young people with health conditions and consequently, it is understandable that both pupils and parents have expressed some confusion about the role of the school nurse within this changing context. However, the guidance that is now available may assist in increasing understanding of the school nursing role and this is something that should be monitored going forwards.

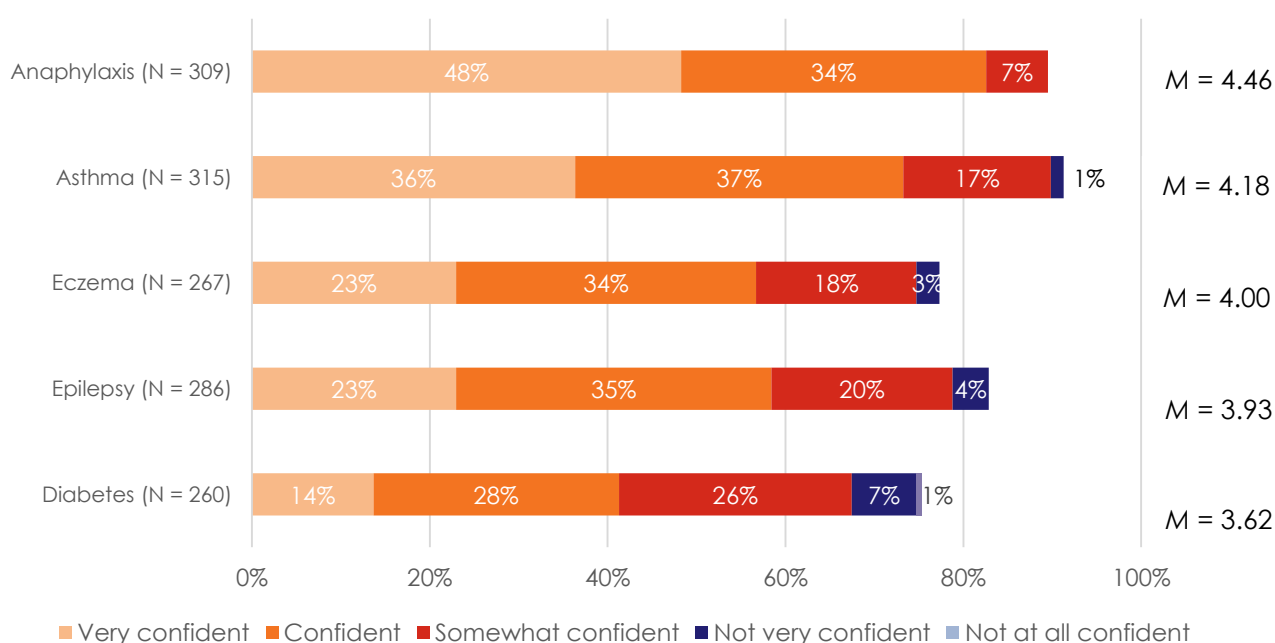## 4.3   Confidence supporting pupils with long-term conditions

Given the breadth of the school nurses' role and their involvement in many different aspects of health care, it is of vital importance that they feel confident supporting pupils with the various different conditions that they may be experiencing. As such, it is imperative to understand how school nurses' confidence may, or may not, differ between each of these conditions. Indeed, as discussed earlier, previous research has only looked at each condition in isolation and one of the main aims of this piece of research was to look at a number of long-term conditions simultaneously.

4.3.1   Overall confidence

It was observed that school nurses' confidence supporting pupils with each long-term condition varied substantially between conditions, and as such additional statistical tests were run in order to determine the significance of this difference. A repeated measures ANOVA was conducted to compare confidence across the different conditions[5]. The results of the main analysis showed that there was a significant effect of the different long-term conditions on school nurses' confidence $(F$ $(3.75, 776.55) = 60.08$, $p < .001)$. Nurses' confidence supporting pupils with each condition were all significantly different from each other; for instance, confidence with anaphylaxis was significantly different compared to confidence with asthma, epilepsy, eczema and diabetes $(p < .001)$. Confidence supporting pupils with epilepsy and eczema were found to be the only conditions that were not significantly different from each other.

As can be seen from Figure 7, with the exception of diabetes, over half of school nurses were very confident or confident supporting pupils with long-term conditions. It is especially encouraging that no school nurses reported being not at all confident for these health conditions. Nurses were most confident supporting pupils with anaphylaxis, with 82% feeling confident or very confident in their ability to support pupils.

Figure 7. School nurses' confidence across the different long-term conditions addressed in this research[4].

Given that asthma is the most common long-term condition affecting children and young people (Brent et al., 2015; Hagell, Coleman & Brooks, 2015), it is especially positive that nearly three quarters of school nurses felt confident or very confident supporting pupils with asthma. Findings for the management of epilepsy appear consistent with previous work which showed that 60% of school nurses felt confident managing epileptic seizures (Olympia et al., 2005) and moderate levels of confidence with diabetes (Fisher, 2006). However, given the increasing prevalence of diabetes specifically related to the increase in obesity (Diabetes UK, 2012; Haines et al., 2007), there is scope to further improve school nurses' confidence in this area.
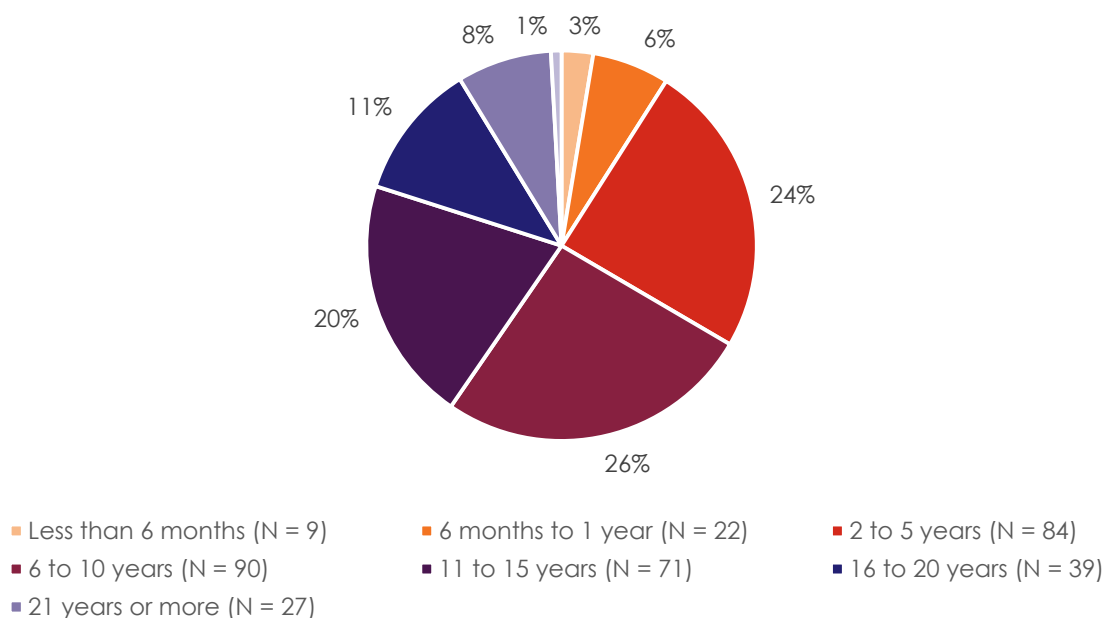
Considering nurses' confidence varied supporting children and young people with the different conditions, a range of statistical analyses were employed to better under understand what factors may affect school nurses' confidence levels. A range of exploratory statistics were conducted and significant relationships were found with confidence and length of time as a school nurse, the number of schools nurses work across and how frequently they work with other healthcare professionals. Each of these will be discussed in more detail below and graphs have been included where significant results were found.

4.3.2   Confidence and length of time as a school nurse

Length of time as a school nurse

It was observed that the length of time as a school nurse was skewed towards a more experienced profession, with just 9% (N = 31) being newly qualified and working for less than a year, half of the workforce working for two to ten years (50%, N = 174), and 40% being in the job for over 11 years (N = 136). The experience of school nurses in NCB's survey was consistent with Ball's (2009) findings which revealed that school nurses typically had 10 years of experience in school nursing and found the average age of a school nurse to be 47 years (Ball, 2009).

Figure 8. Pie chart to show length of time working as a school nurse (N = 341)[4].

- Less than 6 months (N = 9)
- 6 months to 1 year (N = 22)
- 2 to 5 years (N = 84)
- 6 to 10 years (N = 90)
- 11 to 15 years (N = 71)
- 16 to 20 years (N = 39)
- 21 years or more (N = 27)

### How does this affect confidence?

A one-way ANOVA was conducted to explore the impact of length of time working as a school nurse on school nurses' level of confidence across the different long-term conditions. Respondents were divided into three groups according to how long they had been working as a school nurse:

- Group 1: 0 – 5 years;
- Group 2: 6 – 10 years;
- Group 3: 11 years and over).

There was a statistically significant difference with a small effect size at the $p < .01$ level in confidence levels for anaphylaxis (F (2, 257) = 6.68, p = .001, r = .21) and epilepsy (F (2, 283) = 4.70, p = .01, r = .18). This indicates that as the length of time working as a school nurse increased, so too did nurses' confidence supporting pupils with anaphylaxis and epilepsy. However, it must be stressed that this relationship was not found for diabetes, eczema or asthma, indicating that, for these conditions, confidence was unaffected by length of time.

Given significant relationships between confidence and length of time as a school nurse were only found to be significant for two of the conditions, follow up tests were conducted to explore where the differences were and between what groups. Post-hoc comparisons using Bonferroni showed that significant differences in confidence between the groups for anaphylaxis and epilepsy. In practice, this indicates that nurses who had been working for over 11 years (M = 4.57, SD = .61) felt significantly more confident supporting pupils with anaphylaxis than those who had only been working for six to ten years (M = 4.51, SD = .59) and newly qualified nurses who had been working less than five years (M = 4.28, SD = .67). Likewise, nurses who had been working for over 11 years (M = 4.07, SD = .83) felt significantly more confident supporting pupils with epilepsy than those who had been working as a school nurse for under five years (M = 3.72, SD = .89) (Figure 9).

Figure 9. Relationship between confidence levels and the length of time working as a school nurse.
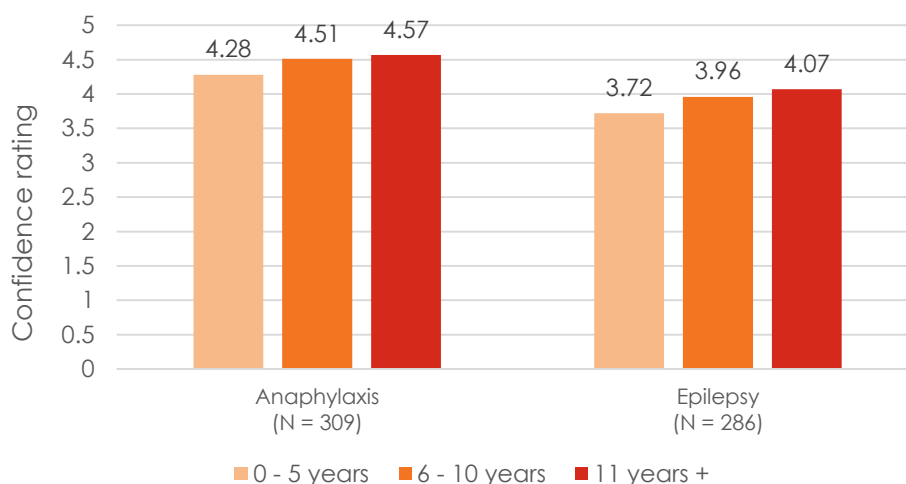
The finding that confidence increases with time and experience is not a new concept in healthcare (Ulrich et al., 2010) or in the literature concerning school nurses' confidence to support pupils with long-term conditions in schools. Gau et al. (2002), for example, found that more experienced nurses felt more confident than their newly qualified counterparts. However, it is especially positive that the current research did not find this to be true for long-term conditions in general, but rather only for anaphylaxis and epilepsy. It may be that, as opposed to length of time working, direct experience may account for these findings. It is also important to note that newly qualified school nurses will not always have the opportunity to care for children with various conditions immediately upon entering employment. It may be this limited direct experience which hinders development of confidence, suggesting a stronger relationship between direct experience and confidence. It is likely the case that school nurses who have worked for longer periods of time are also more likely to have directly supported pupils with many different types of long-term conditions. Previous research has highlighted the relationship between previous direct experience and increased confidence, compared to less experienced school nurses (Fisher, 2006; Nabors, Troillett, Nash, & Masiulis, 2005). Thus, it may be that previous direct experience is more important than the number of years spent working as a nurse.

Research has suggested that workshops and training opportunities may have similar effects on confidence as years of experience or direct experience. For instance, school nurses' confidence was found to increase when they had attended a workshop or training session focused on one condition; attending a workshop on anaphylaxis increased their confidence supporting pupils with this condition (Austin et al., 2010; Sasaki et al., 2015), and attending an educational programme on diabetes management increased nurses' confidence supporting pupils with diabetes (Breneman et al., 2015). Subsequently, these findings allude to the value of continued professional development opportunities as a means for building confidence.

One continued professional development (CPD) opportunity that the school nursing professional in general is in a unique position to offer is the prospect of mentoring by more experienced school nurses to bring an array of benefits. Storey et al. (2006) stated that a more mature and experienced workforce, such as school nurses, are a resource that should be valued; they have a wealth of experience, knowledge and skill, are committed, and have the ability to teach and mentor younger nurses (Bennett et al. 2007; Hatcher et al. 2006; Wray et al. 2006). Subsequently, mentoring may prove advantageous in both making the more experienced nurses feel skilled and valued, but also in supporting new nurses. This may help to retain the more experienced workforce, but would also help a new generation of school nurses who would be given the opportunity and time to benefit from their colleagues' wealth of experience. Thus, there is scope to build on the skills of newly qualified and/or less experienced school nurses through a range of opportunities, including mentoring, workshops and training events to help them to support pupils with long-term conditions.

4.3.3   Confidence and working across schools

Number and type of schools nurses work across

In order to better understand the role and profile of the school nurse in 2015, respondents were asked about the number and type of schools they worked across. 38% (N = 130) of school nurses reported working across ten different schools (see Table 2 below). As can be seen in Table 3, approximately the same amount of nurses reported working in primary schools (73%; N = 250) and secondary schools (70%; N = 241). Nearly a third of school nurses reported working in special needs schools (30%; N = 103) and approximately a quarter of school nurses worked in pupil referral units (PRUs) (26%; N = 90).

Table 2. Number of schools nurses work in (N = 338)[4].

Number of schools	N	Percentage
1 - 4	104	30%
5 - 9	104	30%
10 +	130	38%

Table 3. Type of schools nurses work in (N = 343)[4].

Type of school	N	Percentage
Primary school	250	73%
Secondary school	241	70%
Special needs school	103	30%
Pupil referral unit	90	26%
Joint primary and secondary school	89	23%
Independent school	89	23%
Sixth form college	57	17%
Other	17	5%
Children's / early years' centre	15	4%
Further education college	13	5%
Higher education	1	0%

These findings are largely consistent with Ball's (2009) findings which revealed the majority of school nurses provided a service in both primary and secondary schools. However, the percentage of nurses working in each type of school was noticeably higher in this survey than compared to seven years ago. This suggests that school nurses are working across more varied types of schools, and therefore have expanded their skillset accordingly to incorporate practice in a range of different settings. Furthermore, this change in working pattern suggests that school nurses have had to become more resourceful with their time.

With regard to the number of schools nurses reported working across, in 2009 the average number of schools was found to be 6.9 (Ball, 2009). Although not directly comparable, our findings indicate that the number of schools nurses work across remains high. International research has highlighted the benefits that school nurses can bring to schools and pupils (for instance increased pupil attendance), but these benefits were observed to increase when school nurses work full-time in one school (Magalnick & Mazyck, 2008; Wang et al., 2014).

Given nurses different roles across the UK and USA, it may be that these findings, whilst noteworthy, are simply not applicable in the UK. UK-based school nurses may be able to bring about benefits such as these in schools, despite working across a number of different settings. As such, more research is needed to unpick the impact of school nurses on schools, and specifically pupils with long-term conditions, taking into consideration the number of schools they work across to more fully explore this fact of the profession.

## How does this affect confidence?

Given these findings, it is important to understand whether the numerous and varied types of schools nurses work across has an effect on their confidence. A one-way ANOVA was conducted to explore the relationship between the number of schools nurses work in and their confidence levels across each long-term condition.

Respondents were divided into three groups dependent on the number of schools they reported working in:
- Group 1: 1-4 schools;
- Group 2: 5-9 schools;
- Group 3: 10 schools and over.

For four out of the five conditions, there was a statistically significant difference in confidence levels with a small effect size dependent on the number of schools nurses worked in. This includes for asthma (F (2, 310) = 5.32, p = .005, r = .18), diabetes (F (2, 257) = 5.66, p = .004, r = .21), eczema (F (2, 263) = 3.73, p = .025, r = .17), and epilepsy (F (2, 282) = 5.99, p = .003, r = .20). Post-hoc comparisons using Bonferroni were run to ascertain which groups were significantly different from each other for each long-term condition.

For all four conditions, it was observed that nurses who worked in over 10 schools were significantly less confident than those nurses who worked in fewer than four schools at the p < .025 significance level (Figure 10).

Figure 10. Relationship between school nurse confidence levels and number of schools worked in
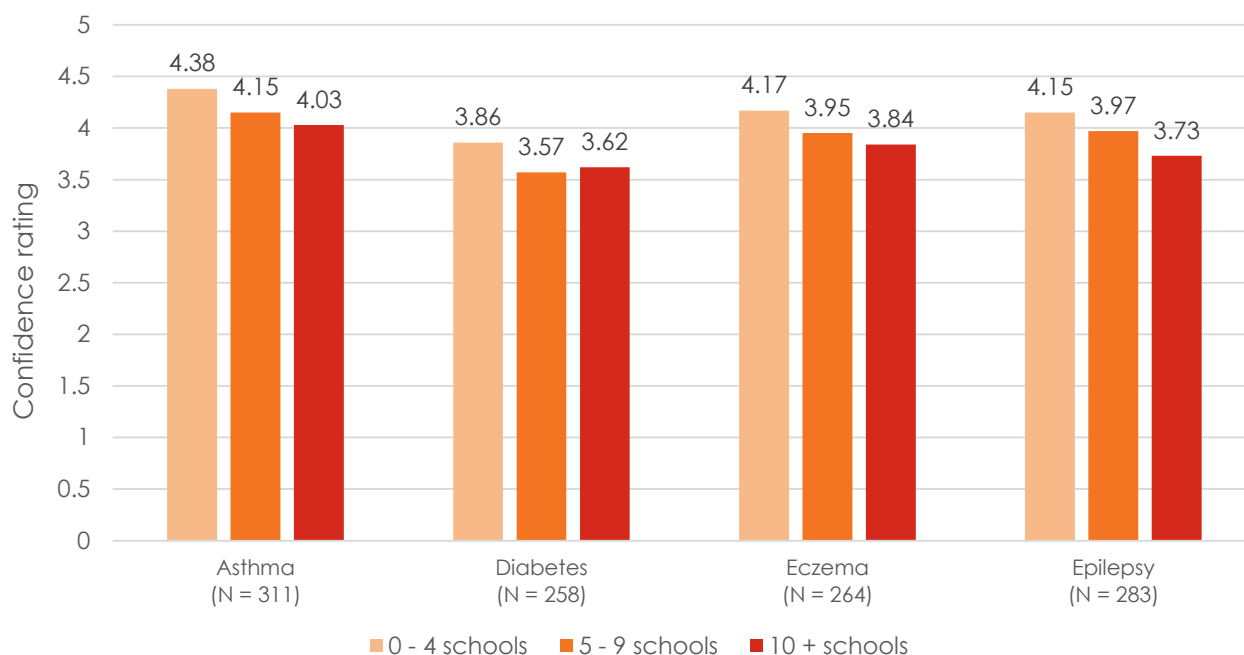
Consistent with the findings of an international exploration of school nurse provision, the majority of UK nurses were shared across a number of schools (Lange et al., 2009). Ball (2009) added to the evidence base to find school nurses worked across an average of 6.9 schools. Considering there are just 2,606 (Royal College of Nursing, 2016) supporting 8.4 million school aged children in England (Henshaw, 2015), it is unsurprising that school nurses work across a number of different schools. In order to reach all of their schools, nurses have reported spanning fairly large geographical areas and spending much of their time travelling between schools, with international research highlighting that many used their car as an office (Oregon Task Force on School Nurses, 2008).

In the UK, Chase et al. (2011) identified adequate capacity (in terms of staff numbers) and resources to be vital for enabling school nurses to work most effectively. Building relationships with the school community takes time in order to provide a fully comprehensive service to that populations' needs (Chase et al., 2010). This includes identifying pupils with long-term conditions that need support and building individual relationships with them, their family, teachers, and often their peers and school staff in order to educate them. It is, therefore, a positive finding that nearly two thirds of nurses worked in fewer than ten schools, allowing them to effectively build such relationships with key staff and pupils.

The American Academy of Pediatrics (Council of School Health, 2008), however, supports the presence of one full time school nurse per school in the USA. A recent pilot in the UK has trialled this approach in a high-need, culturally diverse secondary school in central London and has found promising results in terms of offering students early help through inter-agency referral meetings and the nurses' ability to be visible and more available for drop-in, organise groups and individual work with pupils (British Youth Council, 2011).

Irrespective of how many schools nurses work across, schools and local authorities need to ensure that school nurses feel supported, despite often being classified as lone workers, and feel a part of a school's community to best support students. This will enable them to build the necessary relationships that are seen as so vital within their role and support pupils to the best of their ability, with the support of the school behind them.

4.3.4   Confidence and multi-agency working

Working with others

Building relationships is very important for school nurses, both internal and external to the school environment (see section 3.2.2). As well as liaising with professionals for referral processes, it is also important for school nurses to work with the community to support pupils with medical conditions. Table 4 shows that 45% (*N* = 156) of school nurses reported often or very often working with other community health professionals to support children and young people in schools with their long-term health conditions, however 50% (N = 172) said this only happened sometimes or rarely, suggesting there is scope to improve the frequency of multi-agency working for half of school nurses.

**Table 4. Frequency school nurses experienced working with other community health professionals (*N* = 328)[4].**

Frequency	N	Percentage
Very often	35	10%
Often	121	35%
Sometimes	139	40%
Rarely	33	10%

Multi-disciplinary and multi-agency working has received a high degree of attention in recent years, dominating the policy agenda in many different sectors. For children and young people specifically, *Every Child Matters* (Department of Health, 2012) set out a model of practice, with different agencies working together and adopting an integrated approach to protect and promote positive outcomes for children and young people. As a part of helping to deliver the *Every Child Matters* outcomes, school nurses are required to work as part of multi-disciplinary teams to enhance delivery and improve outcomes for children and young people. Through their Universal Partnership Plus work, they have a responsibility of working with other agencies where children and young people have on-going complex or multiple needs requiring agency support (Department of Health, 2012).

As well as working with school staff including teachers, head teachers, governors, speech and language therapists, and special educational needs coordinators, they are also expected to work with external agencies. These include general practitioners, health visitors, child and adolescent mental health services, community paediatricians, social services, dieticians, and hospital staff, amongst others (Wright, 2012).

How does this affect confidence?

Considering the increased attention multi-agency working has received in recent years, it is also important to understand any impact this has on school nurses' confidence. To this end, an independent samples *t*-test was conducted to compare the confidence of nurses who worked rarely or sometimes with community health professionals and those that work with them often or very often. This revealed significant differences with small effect sizes across all five long-term conditions, including for anaphylaxis (*t* (298) = -2.32, *p* = .021, *r* = .13), asthma (*t* (304) = -3.01, *p* = .003, *r* = .17), diabetes (*t* (252) = -3.94, *p* < .001, *r* = .24), eczema (*t* (259) = -3.35, *p* = .001, *r* = 20), and epilepsy (*t* (278) = -3.17, *p* = .002, *r* = .19). This indicates that those school nurses who more frequently worked with external health professionals were more likely to have higher levels of confidence supporting pupils with long-term conditions (Figure 11).

Figure 11. Relationship between confidence and frequency of working with other health professionals.
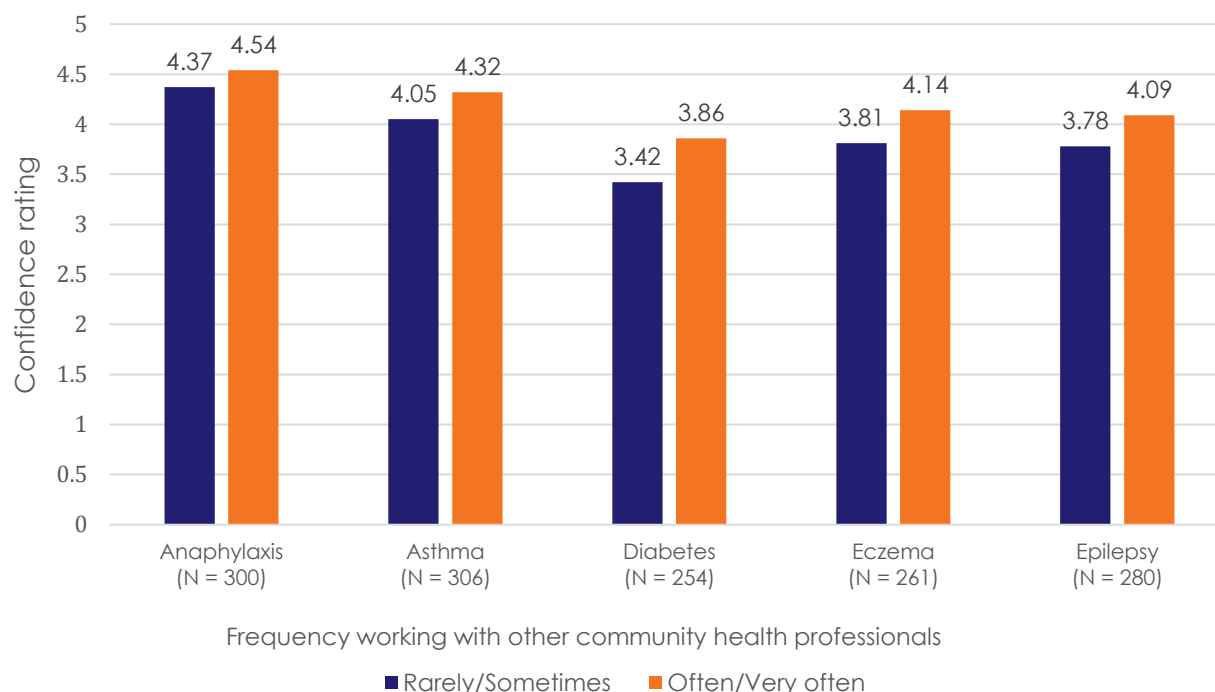
Percy-Smith (2006) argued the advantages of multi-disciplinary working are implicitly and explicitly related to bringing about wide ranging benefits that would not be achievable if it were not for organisations working together. Indeed, multi-agency working is intended to be beneficial for the population it is intending to help, with advantages including a holistic approach to cross-cutting issues, more seamless services for service-users and improved access to services (Abbott et al. 2005a; Fox & Butler, 2004; Percy-Smith, 2006). Despite often working semi-independently and making autonomous decisions for which they are accountable, it is important that school nurses continue to frequently work with other health professionals in multi-disciplinary teams in accordance with the guidance issued by the Department of Health (2012). School nurses, like any professional, need to feel supported and confident in the decisions that they make, especially with regard to pupils' care and informed about any changes in the pupil's condition; one way of ensuring this is through regular contact and/or meetings with other organisations or professionals (Wright, 2012).

Effective multi-agency working with clear lines of communication between professionals has been found to lead to an increased sense of job satisfaction and increased professional confidence in health and social care professionals (Abbott et al., 2005b; Moran et al., 2006). Subsequently, the results of the current study add to the evidence base of the positive impact of working with others, with a specific focus on improving the confidence of school nurses working with pupils with a variety of different long-term conditions. It is particularly noteworthy that working with others was the only factor found to be significantly related to all long-term conditions asked about, suggesting its heightened importance in relation to its relationship with confidence.

In order to help facilitate the many potential benefits that multi-agency working can offer, Wright (2012) recommends that newly qualified and newly employed school nurses, wishing to establish links with other agencies and organisations, should build up a resource and contact pack that will enable them to build up a database of professional contacts, local groups and services. Wright (2012) also recommends school nurses spend the time having introductory meetings with other key agencies to help build relationships and develop multi-agency working to bring about the various advantages it can have for both professionals and children and young people. More research is needed to understand what works in terms of building these relationships from the school nurses' point of view and seek to share good practice in this area, drawing on school nurses' own experiences.

5. Conclusions and recommendations

School nurses are a strong, dedicated and motivated workforce. Over the past few years, they have once again reaffirmed their position in the health and education sectors as specialist practitioners with vital knowledge and skills required to help children stay healthy at school. As in many other professions, theirs is not one without challenges, but in the face of a changing policy context in schools' responsibilities to pupils, school nurses are showing adaptability, resilience and a varied skill set. In light of the *Supporting pupils with medical conditions* guidance, introduced by the Department of Health (2014) two years ago, the main findings of the current survey revealed that:

- School nurses support pupils with many and varied long-term conditions However, the most common condition they experienced supporting pupils with is asthma, which is consistent with prevalence rates for this being the most common long-term condition affecting children and young people.

- School nurses are involved in a range of activities when supporting these pupils, consistent with what was set out in the guidance, including educating other school staff, receiving referrals and supporting the development of individual health care plans.

- School nurses receive referrals from a range of different professionals; thus, it is positive that parents/carers, school staff and community health professionals are engaging well in the referral process and therefore fulfilling their duties set out in the guidance.

- School nurses still experience a number of challenges related to limited time, resources and a high case load, consistent with previous research. However, they also remain highly motivated within their roles.

- In light of the new guidance clearly outlining the role of school nurses, there is scope to further educate pupils and parents about their service and therefore reduce the limited clarity around their role expressed by some. This will enable them to direct their valuable service and skills to all in need in the school community

One of the main areas this research wanted to explore was looking at multiple long-term conditions simultaneously. It was observed that confidence supporting pupils with each condition varied dramatically and many different factors were found to affect school nurses' confidence, including:

- The length of time they have been working as a school nurse, with more experienced nurses feeling more confident;

- The number of schools nurses work across, with nurses who work across fewer schools feeling more confident;

- How frequently school nurses work with other community health professionals, with those who work with others more frequently feeling more confident.

Using this information, it is possible to make a number of recommendations that may help school nurses, schools and local authorities to further support pupils with long-term health conditions at school, and ultimately improve children and young people's school experience and wellbeing. In addition, the current study has identified a number of areas where further research is needed.

5.1 Recommendations for policy and practice

Recommendation One

The Department of Health works with Health Education England and Local Education and Training Boards to secure the recruitment and training of more school nurses to service the needs of an expanding role and expanding school population.

School nurses play an invaluable role in the health and wellbeing of children and young people, with a broad range of duties, from health promotion to supporting individual pupils with specific conditions. The work of school nurses is essential in supporting children to have a full, active and healthy school life, with many documented benefits (Baisch et al., 2011; Biag et al., 2015; Telljohann et al. 2004). With such an important role to play, further grounded in statutory guidance, it is vital that more school nurses are recruited to ensure they have the capacity to making the positive contribution to children's health envisaged in national policy; including support for both children with long-term conditions, but also supporting the wider school population to remain healthy.

Furthermore, if the numbers of school nurses were to continue to drop or there was limited investment in recruiting a new generation of nurses, there are likely to be major implications for the health and wellbeing of children and young people, with a depleted ability for schools to tackle issues such as obesity and mental and emotional health (Henshaw, 2015), as well as their ability to fulfil their newly established duty to support pupils with medical needs (Department for Education, 2014).

Head teachers and other school staff have voiced their concern about the limited numbers of school nurses as well as the increasing health needs of their pupils, with particular concern expressed around pupils' mental health needs (Association of School and College Leaders and the National Children's Bureau, 2016). Action needs to be taken early to recruit and train more school nurses, with the aim of fulfilling the Department of Health's (2004) vision for one school nurse per cluster of primary schools and related secondary school. A recent pilot in the UK trialled the approach of one full-time school nurse and found promising results for pupils in terms of offering them early help, individual and group support (British Youth Council, 2011). It may be that more research is needed in order to explore whether this funding and resource intensive approach benefits children or school nurses in a cost-effective way, including exploring the impact on their confidence.

Recommendation Two

The Department of Health should maintain funding for public health services at a level that enables local authorities to commission satisfactory school nursing alongside other services.

Given school nurses' important role in supporting pupils, the government needs to ensure that this service is appropriately funded and resourced to attract more individuals into a career in school nursing. However, with continuing cuts to local authorities' public health grant, and pressures on other local authority services such as social care, it may be a challenge for local authorities to find the resources they need to appropriately commission school nursing services going forward.

To support commissioning, it may be useful for local authorities and schools to be given guidance that supports the planning of school nursing services in the current financial and political context. This research found that school nurses have widely varying caseloads, inevitably impacting on their ability to fulfil the roles that are described in current national guidance, including work with children with long-term conditions.

Local authorities have historically played an important role supporting school-aged children and young people to achieve their potential, as the lead agency planning schools provision (e.g. Education Act, 1996). The transfer of responsibility for public health to local authorities could therefore provide opportunities to develop school nursing services that are more responsive to pupils needs and better integrated with other support for school aged children. However, the government's strategy to encourage the devolution of power to school leaders with the aim of converting the majority of schools to academies (Department for Education, 2016b), could make the partnership working required to realise this more challenging. With increased autonomy, schools may also be increasingly commissioning services directly. School and local authorities will need support and information to work together to commission the right school nursing offer to meet the needs of children with long-term conditions and fulfil other health promotion roles.

Recommendation Three

Local authorities, providers of school nursing services and schools should pay attention to the preparation and dissemination of information to pupils, parents/carers and school staff about the role of the school nurse as it has been defined that particular area or school. This should include who they are, where they can be found, when they are in the school and how they can support the physical and mental health and wellbeing of pupils.

It is important for school nurses to be visible and accessible within the school environment, given the invaluable support they offer children and young people. However, given that some pupils and parents/carers expressed some confusion with regard to the role of the school nurse, it is crucial that schools raise the profile of school nurses within their community by having clear information and communicating this effectively and accurately to pupils, parents/carers and other school staff.

The Department of Health's School Nurse Development Programme (White, 2012) puts increasing the visibility of school nurses at its core, as have a number of other initiatives in recent years, including putting adverts for school nursing services on buses (Squires, 2013). However, the success of such initiatives is not clear and further research is needed. Especially in the current changing policy context of schools', and school nurses', responsibilities, it may be that schools need to once again invest in promoting the school nursing service, possibly through personable and direct action within their communities, as opposed to larger scale initiatives such as transport advertisements. It may also be useful for schools to market the school nursing service to children in a tailored way that links with other support provided to pupils.

Regardless of what approach is taken, schools must communicate the role of the school nurse effectively, drawing on areas of good practice. For example, it has been noted that school corridors or lunch queues are ideal opportunities for school nurses to introduce themselves to pupils and promote the support they can offer (Crabtree & Davis, 2009). Additionally, newsletters and letters home are equally important and are seen as useful by parents/carers, as are leaflets and having the school nurse present at parent's evenings (Department of Health, 2012). Overall, as Public Health England (2016) suggested, schools need to be innovative and creative in their methods.

It is only when schools and parents/carers work effectively together to support children that any negative impacts of long-term conditions can be minimised – and this can only be achieved through clear communication with parents/carers and clear communication of the exact remit of the school nurses' role in general and in supporting children's medical needs, especially given the recent changes in this respect (Department for Education, 2015; Department of Health, 2015).

Recommendation Four

The Department of Health, Public Health England and Health Education England should ensure school nurses are provided with, and supported to access, valuable learning opportunities to maintain and develop their confidence supporting pupils with additional health needs.

The school nursing profession is in a special position where the majority of the workforce are experienced, but also, often nearing retirement. This presents opportunities whereby more experienced nurses could provide invaluable mentoring support to newly qualified school nurses who face an expanding remit of responsibilities. Such mentoring may help them reach a level of competency and confidence within their role more quickly. Previous research that has focused on the implications of mentoring within the school nursing profession has produced positive results:

school nurses who were mentored were found to have increased job satisfaction, a higher level of competence and there appeared to be benefits for the school population as a whole (Houghton, 2003). Furthermore, mentoring is very cost-effective, can increase staff retention and even help with staff recruitment as potential employees view it in a positive light (Clutterback Associates, 2011).

It may also be useful to increase the opportunities available to school nurses for their continued professional development. Research has shown that over recent years there has been a slight reduction in the training available for school nurses (Ball & Pike, 2005; Ball, 2009). However, with such a varied role, cutting across the education and health sectors, it is especially important school nurses are supported to ensure they are up to date with the latest advancements within their field. In addition, training is another way to support school nurses' confidence, especially for school nurses with less experience (Austin et al., 2010).

The voluntary sector is increasingly offering valued training opportunities for many professions, including training for school nurses and school staff. Specialist voluntary organisations are also offering specific training courses to increase schools' knowledge about certain long-term conditions. For example, in 2012 Young Epilepsy offered free epilepsy awareness training for school staff, including school nurses, to increase awareness of epilepsy, epilepsy symptoms and knowledge about what to look for and what to do in emergencies (Young Epilepsy, 2012). They are also continuing to offer such training courses for a wide range of professionals, albeit at a cost. It may be that such training courses need to be advertised more widely, giving more schools the opportunity to take part, or alternatively more funding is needed to enable nurses to attend courses like these. Additionally, the British Journal of School Nurses is regularly publishing pieces on the management of common long-term conditions, including clinical pieces on asthma (Hammett, 2016; McMurray, 2016; McMurray & Westwood, 2016)), diabetes (Kochlar, 2016), eczema (Greener, 2016), epilepsy (Harrisson, 2016) and anaphylaxis (Clarke, 2016).

Research exploring how useful school nurses find these articles may be useful to understand whether it is cost-effective to put on training for the entirety of the school staff or whether school nurses are able to communicate the findings of these papers as a part of their general education responsibilities.

5.2 Recommendations for future research

Recommendation One
Research should seek to understand the extent and scope of the impact that school nurses' support can have for pupils, schools and communities, with a specific focus on the effectiveness of their support for children and young people with specific prevalent long-term conditions.

In recent years, school nursing has received increased research attention, both internationally but also within the UK. Research has focused on children, young people and families' perceptions of the school nurse (British Youth Council, 2011; Bulmer & Webster, 2016; Cheshire East Council, 2014; Department of Health, 2012), teachers' views of school nurses (Leyland et al., 2016), the impact of the SCPHN qualification on the profession (Jenkins, 2016) and the need and best way to measure effectiveness of the school nursing service (Cornick, 2016; Forward, 2013).

School nurses, as well as many other commission based services, have faced criticism for not being underpinned by evidence of impact or effectiveness and the need for research to showcase this has been repeatedly highlighted both recently and previously (Cornick, 2016; Forward, 2013; Gleeson, 2004; Gleeson, 2009). School nurses are able to see the enormous benefits that the service brings to children, young people and families, however it can be difficult for them to articulate this and demonstrate this impact to others, including their commissioners (Cornick, 2016). Evidence of impact and effectiveness is being increasingly used by those involved in the commissioning process to prioritise the funding of certain, evidence-based, interventions and services (Turner & Mackay, 2016). There is some evidence of the impact of school nursing which has shown positive outcomes, particularly in the field of the impact of nurses on pupils' mental health (see Turner & Mackay, 2016

for a review of the evidence) where there were largely positive results of increased pupil engagement, increased engagement in the development of services, behaviour change, attendance and overall wellbeing.

However, Turner and Mackay (2016) noted that research focused on impact and effectiveness was often only available as internal reviews or published in a narrow range of subscription-only journals (DeBell, 2006), and was generally focused on local projects which have not involved representative samples and therefore cannot be generalised (Polit & Beck, 2011). This is not to say that school nurses have limited impact; rather, more systematic and robust research is needed to capture this impact fully for commissioners and funders.

One reason why there may be limited robust evidence for the effectiveness and impact of school nursing may lie in the fact that school nurses have been shown to have limited capacity and high caseloads which, understandably, may decrease their ability to engage with or conduct their own research. However, with increasing cuts to funding, commissioners are placing increasing value on impact, meaning school nurses need to continue to be supported to find time to demonstrate the impact of their important work to show how they meet the needs of the local population. Chase et al. (2011) recommended that school nurses be given national guidance on how to best evaluate their services to demonstrate impact. In 2016, new commissioning guidance was issued by Public Health England (2016) that outlines performance and outcomes measuring for the transformed school nursing service, which includes key outcomes that school nurses can measure to explore impact. These outcomes include building resilience and emotional wellbeing, reducing risk from harm and improving safety, improving lifestyles, managing health and maximising school attendance, seamless transition and preparation for adulthood and, importantly for their work with pupils with long-term conditions, supporting additional health and wellbeing needs.

Once researchers and school nurses have started to collaboratively build up an evidence base related to the effectiveness and impact of the school nursing role, using the outcome measures set out by Public Health England (2106), it may be beneficial to look at the wider impact for children and young people and those with long-term conditions. With such a pivotal role in supporting these pupils, it may be that the impact is greater for these children and their families, as opposed to the impact for other children and young people. It may also be sensible to explore the impact of the school nursing service from the perspective of other school staff; including teachers, teaching assistants and senior school staff. Equipping school nurses with the tools to demonstrate and illustrate their impact is of vital importance, and it is necessary to do this from a range of different perspectives, given their varied and complex roles.

Recommendation Two

Conduct follow up research both on the survey dataset and via qualitative interviews to gain further insight in to school nurses' experiences of working with long-term conditions.

The range of interesting findings in this report highlights the need for further research into school nurses' experiences of working with pupils with additional health needs/the specific long-term health conditions known to be especially prevalent in the school-age population. Additionally, the school nurses who responded to NCB's survey highlighted the increasing prevalence of other conditions that may be considered to fall under the definition of 'long-term conditions'. These included obesity and a range of mental health issues. We recommend conducting in-depth qualitative interviews with school nurses to provide more insight and detail about their experiences of working with pupils with this wider range of long-term conditions, and following up on several of the key findings in this report. There is also scope to extend this research through conducting additional data analysis, considering more closely the role of different school settings and other variations within the school nurse role.

Recommendation Three

Collect perspectives and experiences of those that work with school nurses including pupils themselves, parents/carers, community health professionals and wider school staff.

As well as again highlighting school nurses' unwavering motivation, the current research has highlighted some of the pressures on school nurses and how their confidence can vary across many of the long-term conditions they support children and young people with. The pupils they work with are central to understanding this in more depth, and therefore we also strongly suggest that future research includes speaking with pupils who have received support from school nurses in relation to their long-term conditions. There is also value in speaking with pupils without long-term conditions about the role of a school nurse more generally and to help conceptualise the school nurses' role from both perspectives, as well as explore any impact of the school nursing service on these pupils.

In addition to speaking with children and young people, we also recognise the value in conducting research involving other people school nurses may work with or alongside. Firstly, it would be important to speak with parents/carers of pupils with long-term conditions in order to understand their experiences with school nurses in ensuring their child is well supported and able to participate fully in school life. Indeed, many school nurses highlighted challenges in communication with parents/carers about the support they offer, as well as some confusion about their role.

It may also be beneficial to understand how other community health professionals feel about working with school nurses, what works well and any impact they perceive it to have for the children and young people in their care or for them as professionals. Indeed, this research highlighted that working with others positively correlated with school nurses' confidence and, subsequently, it would be useful to explore this from the perspective of professionals who work with school nurses on a regular basis.

Recommendation Four

Explore the perspectives of other school staff in supporting children and young people with additional health needs, in particular complex long-term health problems.

Considering the Department for Education's (2014) guidance on supporting children and young people with medical conditions in schools, it is imperative to further understand how confident schools, as a whole, feel about this and the duties expected of them. Although school nurses are the expert, cutting across the education and health sectors, they are not based in just one school. As such, one of their key duties as outlined in the guidance is to educate, train, or facilitate training for other school staff to enable them to support pupils with medical conditions (Department of Health, 2014). For example, any member of school staff may now be asked to administer medicine, with the appropriate training facilitated or provided by the school nursing service, in the absence of the school nurse. Given many school nurses work across multiple schools and that teachers may be doing this at times when the school nurse is elsewhere, research needs to explore how school staff feel about this responsibility, how they feel about the training they received and, ultimately, how confident they feel supporting pupils requiring this support.

5.3   Concluding remarks

This research updates and expands knowledge of the factors that may affect school nurses' confidence to support pupils at school who have additional health needs, in this case, specifically considering asthma, epilepsy, diabetes, anaphylaxis and eczema. This UK-based perspective is timely given the recent Royal College of Nursing (2016) article highlighting the fall in the number of school nursing posts since 2010, also the emphasis on the school nurses' role in the Department for Education's (2014) guidance on supporting pupils at school with medical conditions. Furthermore, it also helps to address the existing imbalance in the research literature which is largely dominated by international studies.

The government, local authorities and schools need to ensure nurses feel confident with their responsibilities set out in the Department for Education (2014) guidance and the findings from this research give some initial suggestions for how to do this. These include: increasing the workforce and reducing the number of schools nurses work across; highlighting the profile and role of the school nurse both within the school and wider community and increasing access to learning opportunities. Moreover, this piece of research highlights a number of further questions that warrant further exploration to better understand and improve the support that is available to children and young people with a range of prevalent long-term health conditions.

References

Abbott, D., Watson, D. & Townsley, R. (2005). The proof of the pudding: What difference does multi-agency working make to families with disabled children with complex health care needs? *Child and Family Social Work, 10*, 229–238.

Anaphylaxis Campaign (2014). *Frequently asked questions: Schools.* Retrieved from http://www.anaphylaxis.org.uk/wp-content/uploads/2015/06/FAQs-in-schools-v9-with-new-logo.pdf.

Association of Schools and College Leaders and National Children's Bureau (2016). *Keeping young people in mind – Findings from a survey of schools across England.* Retrieved from file:///C:/Users/AEdwards/Downloads/ascl_and_ncb_findings_from_survey_briefing_final_footnotes.pdf

Asthma UK (2015). *Asthma facts and statistics*. Retrieved from https://www.asthma.org.uk/about/media/facts-and-statistics/.

Asthma UK (2009). *Missing out: Asthma attacks in more ways than one*. London: Asthma UK.

Austin, J. K., Kakacek, J. R. M., & Carr, D. (2010). Impact of training program on school nurses' confidence levels in managing and supporting students with epilepsy and seizures. *The Journal of School Nursing : The Official Publication of the National Association of School Nurses, 26(6),* 420–9.

Baisch, M. J., Lundeen, S. P., & Murphy, M. K. (2011). Evidence-based research on the value of school nurses in an urban school system. *The Journal of School Health, 81(2),* 74–80.

Ball, J. (2009). *School Nursing in 2009: Results from a survey of RCN members working in schools in 2009*. Royal College of Nursing.

Ball, J., & Pike, G. (2005). *School Nurses: Results from a census survey of RCN school nurses in 2005*. Royal College of Nursing.

Bennett, J., Davey, B., & Harris, R. (2007). *Nurses working in mid-life*. London: Nursing Research Unit, King's College London.

Biag, M., Srivastava, A., Landau, M., & Rodriguez, E. (2015). Teachers' perceptions of full- and part-time nurses at school. *The Journal of School Nursing : The Official Publication of the National Association of School Nurses, 31(3)*, 183–95.

Birmingham City University (2016). *Specialist Community Public Health Nurse (HV/SN) - BSc (Hons) or PG Level.* Retrieved from http://www.bcu.ac.uk/courses/specialist-community-public-health-nurse.

Boden, S., Lloyd, C. E., Gosden, C., Macdougall, C., Brown, N., & Matyka, K. (2012). The concerns of school staff in caring for children with diabetes in primary school. *Pediatric Diabetes, 13(6),* 6–13.

Borgmeyer, A., Jamerson, P., Gyr, P., Westhus, N., & Glynn, E. (2005). The school nurse role in asthma management: can the action plan help? *The Journal of School Nursing : The Official Publication of the National Association of School Nurses, 21(1),* 23–30.

Breneman, C. B., Heidari, K., Butler, S., Porter, R. R., & Wang, X. (2015). Evaluation of the Effectiveness of the H.A.N.D.S.SM Program: A School Nurse Diabetes Management Education Program. *The Journal of School Nursing : The Official Publication of the National Association of School Nurses, 31(6)*, 402–10.

British Youth Council. (2011). *Our School Nurse.* Retrieved from http://www.byc.org.uk/media/75447/byc_school_nurse_report_web.pdf

Brooks, F., Magnusson, J., Klemera, E., Spencer, N., & Morgan, A. (2011). *HBSC England National Report. Findings from the 2010 HBSC study for England.* Hatfield: University of Hertfordshire.

Brooks, F., Magnusson, J., Klemera, E., Chester, K., Spencer, N., & Smeeton N. (2015). *HBSC England National Report: Findings from the 2014 HBSC study for England.* Hatfield: University of Hertfordshire

Buchan, J. (1999). The greying of the UK nursing workforce: implications for employment policy and practice, *Journal of Advanced Nursing, 33 (9)*, 818 – 826.

Bulmer, J., & Webster, E. (2016). Young people's views about how they would like to access their school nurse. *British Journal of School Nursing, 11(6), 294-298.*

Chase, E., Chalmers, H., Thomas, F., Hollingworth, K., & Aggleton, P. (2010). Shifting policies and enduring themes in school nursing. *British Journal of School Nursing, 5(10)*, 492–500.

Chase, E., Warwick, I., Hollingsworth, K., Maxwell, C., Chalmers, H., & Aggleton, P. (2010) Promoting the Health of Children and Young People Through Schools: The Role of the Nurse. Final Report. TCRU/IoE

Cheshire East Council (2014) School Nurse Service Users Survey: Summary of Results. Retrieved from http://www.cheshireeast.gov.uk/PDF/School_Nurse-Users-Survey-Summary-Report-FINAL.pdf

Children Act (1989) London: Her Majesty's Stationary Office.

Children Act (2004) London: Her Majesty's Stationary Office.

Children and Families Act (2014). London: Her Majesty's Stationary Office.

Clarke, S. (2016). Anaphylaxis: Managing severe allergies in school. *British Journal of School Nursing, 11(2), 70-72.*

Clutterback Associates (2011). *The Benefits of Mentoring*. Retrieved from http://www.gpstrategiesltd.com/downloads/The-benefits-of-mentoring-v2.0-June-2011%5B30%5D.pdf.

Cornick, K. (2016). The need to demonstrate service effectiveness and improved health outcomes. *British Journal of School Nursing, 11(2)*, 79-83.

Council on School Health (2008). Role of the school nurse in providing school health services. *American Academy of Pediatrics,121*, 1052-1056.

Crabtree, E., & Davis, T. (2009). Marketing the role of the school nurse. *British Journal of School Nursing, 4(8),* 395–398.

Day, P. (2009). School nurses are under-recognized and under-resourced. *British Journal of School Nursing, 4(9),* 424–427.

DeBell, D. (2006). School nurse practice: A decade of change. *Community Practitioner, 79(10),* 324-327.

De Montfort University (2016*). Specialist Community Public Health Nursing MSc/PG Dip*. Retrieved from http://www.dmu.ac.uk/study/courses/postgraduate-courses/specialist-community-public-health-nursing.aspx.

Department for Education (2014). *Supporting pupils at school with medical conditions: Statutory guidance for governing bodies of maintained schools and proprietors of academies in England*. Retrieved from https://www.gov.uk/government/publications/supporting-pupils-at-school-with-medical-conditions--3

Department for Education (2015). *The link between absence and attainment at KS2 and KS4.* Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/412638/The_link_between_absence_and_attainment_at_KS2_and_KS4.pdf.

Department for Education (2016). *Educational excellence everywhere*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/508447/Educational_Excellence_Everywhere.pdf.

Department for Education (2016b). "Educational Excellence Everywhere": Academies. HC Deb 9 May 2016 Vol 609 c393.

Department for Education and Department of Health (2015). *Special educational needs and disability code of practice: 0 to 25 years*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/398815/SEND_Code_of_Practice_January_2015.pdf.

Department of Health (2004). *Choosing Health: Making Healthy Choices Easier*. London: The Stationary Office.

Department of Health (2005). *NHS Hospital and Community Health Service Non-Medical Workforce Census England: 30th September 2004*. Retrieved from http://webarchive.nationalarchives.gov.uk/20050523205851/http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsStatistics/PublicationsStatisticsArticle/fs/en?CONTENT_ID=4108651&chk=XhHXjx

Department of Health (2010). *Healthy Lives, Healthy People: Our strategy for public health in England.* London: The Stationary Office.

Department of Health (2011). *Public Health in Local Government*. Retrieved from http://webarchive.nationalarchives.gov.uk/20130805112926/https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216712/dh_131901.pdf.

Department of Health (2012). *Getting it right for children, young people and families Maximising the contribution of the school nursing team: Vision and Call to Action.* Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216464/dh_133352.pdf

Department of Health (2012b) *Long Term Conditions Compendium of Information*, 3rd edition.

Department of Health (2015). *Guidance on the use of emergency salbutamol inhalers in schools*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/416468/emergency_inhalers_in_schools.pdf.

Department of Health and Department for Schools Children and Families. (2009). *Healthy child programme: From 5-19 years old*. Retrieved from http://www.rcpch.ac.uk/system/files/protected/education/HCP_from-5-19-years-old.pdf.

Department of Health and Public Health England (2016) Health Visiting and School Nurse Programme: Supporting Implementation of the new service offer: Promoting emotional wellbeing and positive mental health of children and young people

Diabetes UK (2012) *Diabetes in the UK 2012: Key statistics on diabetes*. Retrieved from https://www.diabetes.org.uk/Documents/Reports/Diabetes-in-the-UK-2012.pdf.

Diabetes UK (2015). *Diabetes fact sand stats*. Retrieved from https://www.diabetes.org.uk/Documents/About%20Us/Statistics/Diabetes-key-stats-guidelines-April2014.pdf.

Education Act (2002). London: Her Majesty's Stationary Office.

Eiser, C. (2003). *Children with cancer: Quality of life*. Hove: LEA

Fisher, K. L. (2006). School nurses' perceptions of self-efficacy in providing diabetes care. *The Journal of School Nursing: The Official Publication of the National Association of School Nurses, 22(4),* 223–228.

Food Standards Agency (2015). *Food allergy facts.* Retrieved from http://allergytraining.food.gov.uk/english/food-allergy-facts.aspx.

Forward, C. (2012). Measuring the effectiveness of school nursing interventions: A review of outcome tools. *British Journal of School Nursing, 7(10),* 490-500.

Fox, C., & Butler, G. (2004). Partnerships: where next? *Community Safety Journal, 3 (3),* 36–44.

France, J., & Smith, T. (2010). Partnership working to fund and develop school nursing leaflets. *British Journal of School Nursing, 5(1)*, 34-35.

Gale, E. A. M. (2002). The Rise of Childhood Type 1 Diabetes in the 20th Century. *Diabetes, 51(12),* 3353–3361.

Gau, B., Horner, S., Chang, S., & Chen, Y. (2002). Asthma management efficacy of school nurses in Taiwan. *International Journal of Nursing Studies, 39(3),* 279–285.

Gleeson, C. (2004). School health nursing – Evidence based practice? *Primary Health Care, 14(3),* 38-41.

Gleeson, C. (2009). School nurses' workloads: How should they be prioritised? *Community Practitioner, 82(1),* 23-26.

Godwin, P. (2009). Supporting children and young people with epilepsy. *British Journal of School Nursing, 4(10),* 503–506.

Gray, S. (2010). Seen and not heard? Living with long-term conditions. *British Journal of School Nursing, 5(6),* 270–271.

Greener, M. (2015). Managing acute asthma in school age children. *British Journal of School Nursing, 10(1),* 12–17.

Greener, M. (2106). Eczema at school: More than skin deep. *British Journal of School Nursing, 11(5),* 221-223.

Hagbaghery, M. A., Salsali, M., & Ahmadi, F. (2004). The factors facilitating and inhibiting effective clinical decision-making in nursing: a qualitative study. *BMC Nursing, 3(1),* 2.

Hagell, A., Coleman, J., & Brooks, F. (2015). *Chapter 7: Physical health, longterm conditions and disability. Key Data on Adolescence*. Retrieved from http://www.youngpeopleshealth.org.uk/wp-content/uploads/2015/09/KeyData2015_Chapter7.pdf

Haines, L., Wan, K. C., Lynn, R., Barrett, T. G., & Shield, J. P. H. (2007). Rising incidence of type 2 diabetes in children in the U.K. *Diabetes Care, 30(5),* 1097–101.

Hammett, E. (2016). Asthma attacks: Making sure your schools are prepared. *British Journal of School Nursing, 11(6),* 274-277.

Harrisson, C. (2016). Supporting children and young people with epilepsy. *British Journal of School Nursing, 10(2)*, 73-74.

Hatcher, B., Bleich, M.R., Connolly, C., Davis, K., O'Neill Hewlett, P., & Stokley Hill, K. (2006). *Wisdom at work: The importance of the older and experienced nurse in the workplace*. USA: Robert Wood Johnson Foundation

Health and Social Care Act (2012). London: Her Majesty's Stationary Office.

Health Conditions in Schools Alliance (2013). *Memorandum submitted by Health Conditions in Schools Alliance*. Retrieved from http://www.publications.parliament.uk/pa/cm201213/cmpublic/childrenandfamilies/memo/cf26.htm
Henshaw, P. (2015). There are just 1,186 fully qualified school nurses caring for 8.4 million pupils. SecEd, 2015(21), 1–1.

HM Treasury (2016) *Budget 2016.* Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/508193/HMT_Budget_2016_Web_Accessible.pdf

Houghton, C. (2003). A Mentoring Program for New School Nurses. *The Journal of School Nursing, 19(1),* 24–29.

Howell, D. C. (2002). *Statistical Methods for Psychology* (Fifth.). California: Duxbury.

Joint Epilepsy Council (2011). *Epilepsy prevalence, incidence and other statistics*. Retrieved from http://www.epilepsyscotland.org.uk/pdf/Joint_Epilepsy_Council_Prevalence_and_Incidence_September_11_(3).pdf

Jenkins, A. (2016). The impact of SCPHN training on school nurses' perceptions of the role. *British Journal of School Nursing, 11, (6),* 278-285.

Kochlar, S. (2016). Diabetes: Preventing and managing hypoglycaemia. *British Journal of School Nursing, 11(2),* 67-68.

Langdridge, D. & Hagger-Johnson, G. (2013*). Introduction to Research Methods and Data Analysis in Psychology*, 3rd Edition. Harlow: Pearson Education.

Lange, K., Jackson, C., & Deeb, L. (2009). Diabetes care in schools--the disturbing facts. *Pediatric Diabetes, 10 (1)*, 28–36.

Leo, H. L., & Clark, N. M. (2007). Managing children with food allergies in childcare and school. *Current Allergy and Asthma Reports, 7(3),* 187–91.

Leyland, A. F., Pickett, K. E., Barber, S., McEachan, R., & Wright, J. (2016). Teacher-reported prevalence and management of child health problems at primary school. *Journal of Child Health Care, 20(2)*, 243-251.

Lineberry, M. J., & Ickes, M. J. (2015). The role and impact of nurses in American elementary schools: a systematic review of the research. *The Journal of School Nursing: The Official Publication of the National Association of School Nurses, 31(1)*, 22–33.

Long-term Conditions Alliance Scotland (2010). *Seen and not heard? Exploring issues facing children and young people living with long-term conditions.*

Magalnick, H., & Mazyck, D. (2008). Role of the school nurse in providing school health services. *Pediatrics, 121(5),* 1052–6.

Marshall, M., Gidman, W., & Callery, P. (2013). Supporting the care of children with diabetes in school: A qualitative study of nurses in the UK. *Diabetic Medicine, 30*, 871-877.

McDonagh, J. E., & Hackett, J. (2008). Growing up in school with a chronic condition. *British Journal of School Nursing, 3(8),* 385–392.

McMurray, A. (2008). Asthma in schools: A Scottish perspective. *British Journal of School Nursing, 3(3),* 144–148.

McMurray, A. (2016). Managing asthma attacks in the school environment. *British Journal of School Nursing, 11(2)*, 63-65.

McMurray, A. & Westwood, J. (2016). Teaching children good inhaler technique. *British Journal of School Nursing, 11(4),* 166-171.

Meadows, S. (2002). *Great to be grey*. London: King's Fund.

Merrell, J. Carnwell, R. Williams, A. Allen, D. & Griffiths, L. (2007). A survey of school nursing provision in the UK. *Journal of Advanced Nursing 59(5),* 463-473.

Moonie, S. A., Sterling, D. A., Figgs, L., & Castro, M. (2006). Asthma Status and Severity Affects Missed School Days. *Journal of School Health, 76(1),* 18–24.

Moran, P., Jacobs, C., Bunn, A. & Bifulco, A. (2006). Multi-agency working: Implications for an early-intervention social work team. *Child and Family Social Work, 12,* 143–151.

Nabors, L., Lehmkuhl, H., Christos, N., & Andreone, T. L. (2003). Children with Diabetes: Perceptions of supports for self-management at school. *Journal of School Health, 73(6),* 216–221.

Nabors, L., Troillett, A., Nash, T., & Masiulis, B. (2005). School nurse perceptions of barriers and supports for children with diabetes. *Journal of School Health, 75(4),* 119–124.

National Association of School Nurses (2011). *Role of the School Nurse: Position statement*. Retrieved from http://www.nasn.org/PolicyAdvocacy/PositionPapersandReports/NASNPositionStatementsFullView/tabid/462/ ArticleId/87/Role-of-the-School-Nurse-Revised-2011.

NHS (2014). *Atopic Eczema*. Retrieved from http://www.nhs.uk/conditions/Eczema-(atopic)/Pages/Introduction.aspx.

NHS Act (2006). London: Her Majesty's Stationary Office.

NHS England (2014). *Five year forward view*. London: NHS England.

Nursing Times (2015). *Public health nursing faces 'despair' of council budget cuts*. Retrieved from http://www.nursingtimes.net/clinical-subjects/public-health/public-health-nursing-faces-despair-of-council-budget-cuts/7000036.fullarticle.

Olympia, R. P. (2005). The Preparedness of Schools to Respond to Emergencies in Children: A National Survey of School Nurses. *Pediatrics, 116(6),* 738–745.

Oregon Task Force on School Nurses (2008). *Findings and Recommendations of the Task Force on School Nurses. Submitted to the Interim House and Senate Committees on Education Of the 74th Oregon Legislative Assembly. September 2008*. Retrieved from: http://www.mesd.k12.or.us/shs/hss/School%20Nurse%20Task%20Force%20Findings%20and%20Recommendatio n s%208%2028%2008%20to%20leg-1.pdf.

Parent, K. B., Wodrich, D. L., & Hasan, K. S. (2009). Type 1 diabetes mellitus and school: a comparison of patients and healthy siblings. *Pediatric Diabetes, 10(8),* 554–62.

Patterson, C. C., Dahlquist, G. G., Gyürüs, E., Green, A., & Soltész, G. (2009). Incidence trends for childhood type 1 diabetes in Europe during 1989-2003 and predicted new cases 2005-20: a multicentre prospective registration study. *Lancet (London, England), 373(9680)*, 2027–33.

Percy-Smith, J. (2006). What works in strategic partnerships for children: A research review. *Children and Society, 20 (4),* 313–323.

Polifko-Harris, K. A. (2009). *The Practice Environment of Nursing*. Cengage Learning. Retrieved from https://books.google.com/books?id=KalIAAAAQBAJ&pgis=1.

Polit, D., & Beck, C. (2011). *Nursing research: Generating and assessing evidence for nursing practice* (9th ed). England: Lippincott Williams and Wilkins.

Royal College of Nursing. (2012). *The RCN's UK position on school nursing.* Retrieved from https://www2.rcn.org.uk/__data/assets/pdf_file/0004/433282/School_nursing_position_statement_V5FINAL.pdf.

Royal College of Nursing (2014) An RCN Toolkit for school nurses: Developing your practice to support children and young people in educational settings. London: RCN. Updated second edition

Public Health England (2016). *Best start in life and beyond: Improving public health outcomes for children, young people and families. Guidance to support the commissioning of the Healthy Child Programme 0-19: Health Visiting and School Nursing services*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/493617/Service_specificatio n_0_to_19_CG1_19Jan2016.pdf.

Ruggiero, J. S. (2005). Health, work variables, and job satisfaction among nurses. *The Journal of Nursing Administration, 35(5),* 254–63.

Sartain, S. A., Clarke, C. L., & Heyman, R. (2000). Hearing the voices of children with chronic illness. *Journal of Advanced Nursing, 32(4),* 913–21.

Sasaki, K., Sugiura, S., Matsui, T., Nakagawa, T., Nakata, J., Kando, N., & Ito, K. (2015). A workshop with practical training for anaphylaxis management improves the self-efficacy of school personnel. *Allergology International : Official Journal of the Japanese Society of Allergology, 64(2)*, 156–60.

Schwartz, F. L., Denham, S., Heh, V., Wapner, A., & Shubrook, J. (2010). Experiences of Children and Adolescents With Type 1 Diabetes in School: Survey of Children, Parents, and Schools. *Diabetes Spectrum, 23(1)*, 47–55.

Siminerio, L. M., & Koerbel, G. (2000). A diabetes education program for school personnel. *Practical Diabetes International, 17(6)*, 174–177.

Smith, F. (2009). School nursing in the UK: Where are we now? *British Journal of School Nursing, 4(7)*, 351- 352.

Smith, C. T., Chen, A. M. H., Plake, K. S., & Nash, C. L. (2012). Evaluation of the impact of a diabetes education curriculum for school personnel on disease knowledge and confidence in caring for students. *The Journal of School Health, 82(10),* 449–56.

Squires, C. (2013). Who are you? Increasing the school nurse's profile. *British Journal of School Nursing, 8(2),* 78-80.

Stockman, T. R. (2009). Different expectations can lead to confusion about the school nurse's role. *British Journal of School Nursing, 4(10),* 478–482.

Storey, C., Ford, J., Cheater, F., Harding, N., Buchan, J., Hurst, K., & Leese, B. (2006). *Improving the retention of women in the primary and community care nursing workforce after the age of fifty years*. University of Leeds.

Telljohann, S. K., Dake, J. A., & Price, J. H. (2004). Effect of full-time versus part-time school nurses on attendance of elementary students with asthma. *The Journal of School Nursing: The Official Publication of the National Association of School Nurses, 20(6),* 331–4.

Turner, G., & Mackay, S. (2016). The impact of school nurse interventions: Behaviour change and mental health. *British Journal of School Nursing, 10(10),* 494-506.

Ulrich, B., Krozek, C., Early, S., Ashlock, C. H., Africa, L. M., & Carman, M. L. (2010). Improving retention, confidence, and competence of new graduate nurses: results from a 10-year longitudinal database. *Nursing Economics, 28(6),* 363–76.

University of Bedfordshire (2016). *Specialist Community Public Health Nursing (School Nursing).* Retrieved from http://www.postgrad.com/University-of-Bedfordshire-Nursing-and-Midwifery-Specialist-Community-Public-Health-Nursing--School-Nursing/course/397249/.

Wang, L. Y., Vernon-Smiley, M., Gapinski, M. A., Desisto, M., Maughan, E., & Sheetz, A. (2014). Cost-benefit study of school nursing services. *JAMA Pediatrics, 168(7),* 642–8.

Watson, R., Manthorpe, J., & Andrews, J. (2003). *Nurses over 50 - options, decisions and outcomes.* Bristol: The Policy Press.

White, S. (2012). Brave new world. *Journal of Family Health, 22(1),* 12-13.

Woodgate, R. L. (1998). Adolescents' perspectives of chronic illness: "it's hard". *Journal of Pediatric Nursing, 13(4)*, 210–23.

Wray, J., Watson, R., Stimpson, A., Gibson, H., & Aspland, J. (2006). *A wealth of knowledge: The employment experiences of older nurses, midwives and the NHS.* The University of Hull.

Wright, J. et al. (2012). *The School Nurse Survival Guide: Common questions and answers for the school nurse.* London: Quay Books.

Young Epilepsy (2012). *Free epilepsy training for schools and colleges in Greater London*. Retrieved from http://www.youngepilepsy.org.uk/news-and-events/news/free-epilepsy-training-for-schools-and-colleges-in-greater-london.html

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