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## **Knowledge transfer – embedding knowledge transfer to increase productivity in school nursing.**

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### **Abstract**

This article is a discussion paper aimed at school nursing leaders, and importantly nursing managers and academics who are looking for ways to sustain nursing services. With austerity, there is a compelling demand for future NHS services including school nursing to effectively identify, manage, shared, and transfer the knowledge externally sourced and internally developed to support productivity improvements. Productivity has been applied liberally in this article by its narrow definition that is, ratio of outputs (number of school nursing interventions) compared to the inputs used to deliver the intervention (number of school nurses). NHS services have faced productivity challenges, which have resulted in a search for ways to run safely and efficiently. Knowledge assets are abundant in school nursing and reside within interactions with children, young people and their families, policies, and procedures as well as in connected agencies such as education and social care. The turbulence of the austerity measures can make NHS school nursing service knowledge, experience, and expertise a dominant source of increasing productivity. The service needs to transfer expert knowledge as it seek to develop efficient application of resources and survive the turbulence. Evidence from businesses in the service sector show that internal transfer of knowledge and expertise across teams leads to increase productivity. Considering that this has been possible within the service sector; knowledge transfer may provide a key to unleashing productivity potential in NHS school nursing service. Central to this debate to lift school nursing productivity, is a need to understand the drivers of productivity and recognising that other factors like investment also impact on productivity. This is an economy-wide issue however, the school nursing service (NHS) itself can have a unique impact on this debate.

### **Introduction and background**

School nursing productivity, and its improvement, is imperative for business necessity to strengthen and support efficiency and quality interventions for children, young people, and their families. A literature review of the effectiveness of school nursing interventions highlighted a lack of published evidence in some interventions (Abhyankar and MacGillivray 2014). In addition, scoping review suggests lack of evidence-based interventions in school nursing may lead to policies and practices that potentially deny children, young people, and families the benefits of proven intervention (Campbell,

Pollack, Levati, et al, 2014). The knowledge gained by engaging with service users is important and school nursing should find ways to capture and draw on these assets as well as their expertise in delivery the service. It may be that school nursing prioritise interventions that really matter to children, young people, and their families, like it has been implemented in Scotland (Scottish Government 2017). This suggest squaring the era of reduced investment, increasing demands for services, training and skilling and adaptation of knowledge transfer practices. On the other hand, studies in the service sector show organisations have achieved increased productivity by managing its knowledge assets through bringing employees together to share 'service knowledge'. In other words, services transfer their knowledge assets to achieve increased productivity (Kane 2010; Argote and Ingram 2000). Knowledge transfer in this process ensures that practitioners are affected by the experiences of their colleagues (Argote and Ingram 2000). The two types of knowledge described in literature are tacit (knowledge that is difficult to set out in tangible form) and explicit (knowledge set out in tangible form) (Phelps, Heidl and Wadhwa 2012).

However, healthcare is complex and school nurses are faced with diverse and complexities of children, young people, and their families but fundamentally, similar to other service organisations with complex systems, workforce management, policies and procedures, expert guidelines and routines. Many have written about incorporating evidence from research in to healthcare to deliver patient-centred quality care and improve outcomes. Unfortunately, there has been limited call for NHS services including school nursing to systematically manage and transfer expert knowledge of their staff to increase productivity, and importantly business necessity.

This article therefore explores how the school nursing service can 'spread' its unique knowledge assets; experience and expertise which are more productive to evolve and respond to slowdown in NHS investment.

### **Knowledge transfer and school nursing productivity**

Using the definition of knowledge transfer as the process through which teams and individuals, exchange, receive and are influenced by the knowledge, experience, and expertise of others (Argote 2000). Since knowledge transfer needs integrating the knowledge into practice, it manifests itself through changes in the knowledge base and performance of receiving practitioners (Argote et al. 2000). The theory is relevant to enhance the likelihood and the ability of school nurses to identify and transfer their experiences and expertise. Studies suggest that knowledge exists in systems and best practice, technologies, roles, policies, and standards transferrable by imitation, shadowing, and apprenticeship (Lam 2000; Levine and Prietula 2012). The questions are whether knowledge transfer

offers possibilities to the challenge of harmful funding cuts in NHS services. It is argued that the crucial element of sustaining productivity in any service is to standardise tacit knowledge transfer as a source and basis for value creation (Szulanski 2000). Consequently, more service organisations addressed the implementation of tacit knowledge transfer to achieve sustainable productivity. A well-conceived and well-executed knowledge transfer may enhance service productivity within a context of limited school nursing budget and reduce variations in delivery of services. This approach should be based on the recognition that evidence of using knowledge asset as dominant source of productivity is not exclusive to businesses. Moving towards utilisation of knowledge transfer to increase productivity, seeks to draw on knowledge resources held within school nursing and connected agencies as has been adopted by businesses in the service sector (Phelps, Heidl and Wadhwa 2012).

Productivity has been applied liberally in this article by its narrow definition that is, ratio of outputs (number of school nursing interventions) compared to the inputs used to deliver the intervention (number of school nurses). However, school nursing output is comprehensive, covering all the activities supporting the delivery of Healthy Child Programme 5-19 in England (Public Health England 2016). Furthermore, productivity in school nursing is not simply a count of activities, but also quality indicated by e.g. a school healthcare plan to manage haemophilia for a child, to joining appropriate and safe activities at school playground whilst avoiding risks such as boxing. The author does not imply any notion that this means school nurses need to work harder but suggest the need to rethink how e.g. a young person at risk of exclusion from school due to low level depression resulting in behaviour difficulties can be seen by a school nurse for their health and wellbeing other than another professional. This can become prime factors in attracting upward investment.

The unprecedented financial pressure on NHS trusts in England and rising cost containment exercise has made it increasingly difficult to respond to the demand side of health services, such as accessing support for emotional health and wellbeing of children and young people (Robertson 2016; Buchan and Seccombe 2012). In addition, the transfer of community public health nursing (School Nursing and Health visiting) to Local Authority in England under the Health and Social Care Act 2012 demands increased productivity with less investment (DH 2012).

In Scotland, school nursing role is refocused and redefined to deliver a service with contemporary focus on nine priority areas, which are: 1) emotional health and wellbeing; 2) substance misuse; 3) child protection; 4) domestic violence; 5) looked after children; 6) homelessness; 7) youth justice; 8) young carers; and 9) transitions. The service utilises the Getting It Right for Every Child (GIRFEC) and

National Practice Model (NPM) to assess the health and well-being needs of 5-19 and working in partnership with the Named Person (Education), who is a point of contact to link children and young people, and their families to services or provide direct support (Scottish Government 2017).

School nursing productivity may be described in terms of effective delivery of the public health agenda through prevention and identification of emerging patterns, concerns of health and wellbeing. It is imperative to apply evidence-based interventions in school nursing but it requires professional competence and expertise, involvement of children, young people and families, their preferences, and a cultural shift to embrace knowledge sharing. The emphasis is on prevention and early help to result in reduction of the number of children and young people at risk of harm, and in risk taking behaviour, for example entering the youth justice system (Wright 2012; RCN 2017; Glasper 2017).

### **Consequences of knowledge transfer and a need for adaptation**

Research has shown that knowledge transfer has important implications for productivity crystallised in a positive relationship between learning from individuals, developing capabilities and performance (Argote 2000). Hence, knowledge transfer has been associated with increased productivity. Second, knowledge transfer enables services to generate innovative ideas as it stimulates the combination of existing and newly acquired knowledge and augments a service capacity for making novel linkages and associations to health and wellbeing outcomes (The Health Foundation 2015). Davies, Wong and Laschinger (2011) suggest organisations that support and encourage knowledge transfer among members unleash productivity potentials. This means that knowledge transfer not only ensures efficient use of related clinical and professional knowledge but also allows better understanding of productivity potential that resides within school nursing.

### **School nursing should desire to spread optimal best practice and routines**

The changes in legislation and policy have meant that NHS services including school nursing should not make a mistake to think that they can 'survive' with the same approach to productivity (Glasper 2012; RCN 2012; Robertson 2016). More significantly, it may expose school nursing to more funding slowdown in the future. This future may be one where the school nursing service productivity is assessed by meeting the rising health and wellbeing needs and the quality of delivery outcomes, by doing things differently with expectations of personalised young person service and a willingness to go the extra mile but this must be achieved with less funding, not more. RCN (2017) reports the value of school nursing engaging closely with families and facilitating access to public services such as education, children social care and health. This is no mean feat as school nursing (NHS) has a long-

standing productivity issues however, school nurses have what it takes in terms of experience and expertise, policies, and procedures. What is not clear is whether service managers as whole are equipped to take this challenge forward by creating the conducive environment.

### **Knowledge repositories**

The knowledge transfer process starts with identifying knowledge repositories (workforce experience and expertise, data, professional guidelines, policies and procedures, interactions with customers; children, young people and their families and connected agencies) and using tool or frameworks that ensures deliberate application by the recipient. Research shows immense benefits from identifying and transferring best practice and expertise (Levine and Prietula 2012) however specific features of repositories like the individual practitioner and organisational structures might impact its success. It should be highlighted that a practitioner's capacity to absorb and diffuse best practice plays a crucial part of the transfer process (Mu et al, 2010). Hence developing school nursing capacity to drawn on own experiences, visible leadership as well as transfer best practices should be through a coherent use of a tool will be an essential component in driving productivity. When school nurses work uniquely with other public services such as education and social care services they display their capabilities to spread best practice and expertise collectively. Often new school nurses learn the collective knowledge implicitly as part of on-going interactions. This speaks to the crucial role of the school nurse, captured in the Healthy Child Programme (DH 2009) and the delivery of the 20:20 Vision for Health and Social in Scotland (Scottish Government 2013). Studies conducted in knowledge transfer fields recognise the significance of repositories such as members, tasks, networks, and other holders (Argote and Ingram, 2000; Argote et al, 2000; Darr et al, 1995). The theoretical frameworks of knowledge repository developed by Argote and Ingram (2000) and Argote et al, (2000) show that knowledge is stored in three main repositories; the workforce, tools, and task network. The tacit knowledge of school nursing may reside in routines and best practice assessment and professional judgement, including analysis of assessment data, quality characteristics of leadership, partnership, and collaborative working. Contextually, repositories for tacit knowledge can be examined based on 'the way we do things' in engaging young people in health interviews, building, sustaining relationships and facilitating families access to services, whilst explicit knowledge can be codified NHS policies and standard operating procedures, professional code of practice and NMC standard of proficiency (NMC 2004).

### **Knowledge transfer tools**

Even though several tools and framework exist to identify and transfer explicit knowledge, there are less tools for accessing and transferring tacit knowledge (Argote and Ingram 2000; Kothari et al, 2011). Furthermore, school nursing like many other NHS services has not been explicitly aware of the value of tacit knowledge and the framework to support its use leading to the risk of losing valuable intangible resources. Kothari et al, (2011) suggest the purpose of facilitating a transfer should include empowering practitioners or teams to reflect on the new knowledge and alter ways of practice. Knowledge transfer occurs when repositories are accessible and there is a comprehensive framework to distribute the knowledge so that individuals are affected by it. Argote and Ingram (2000) proposed the idea that knowledge can be transferred even if the recipients are unable to articulate that knowledge. To illustrate the point Argote and Ingram (2000) explained that one can use a modified tool for best performance without necessarily being able to elucidate how and why the tool is effective. It is noteworthy that systems exist in health services to facilitate transfer of knowledge by their nature, handle explicit knowledge with little direction on how to render tacit knowledge more explicit (Kothari et al, 2011). As illustrated, earlier knowledge can be found in different repositories within school nursing so it is essential that tacit knowledge can be located, mapped, and transferred, otherwise one key person leaving the service will render that knowledge inaccessible.

School nursing teams already use all or a combination the following knowledge transfer tools and framework:

- Mentoring- a conceptual development of an individual by investing personal know-how, experience, expertise and wisdom to assist others to progress.
- Skill mix- a programme to optimise workforce needed to deliver a service working at the levels proper to their skills. It is often balanced with the need to make workforce affordable.
- Simulation- imitation of routines and self or group reflection to create platform for knowledge transfer.
- Job shadowing- a process where school nurses can routinely follow other members of staff seeing and asking questions about their daily experiences to increase knowledge.

These work-base knowledge transfer processes are socially interactive and familiar to school nursing. This suggests that if streamlined school nursing knowledge transfer stand a better chance to develop capabilities to identify knowledge assets and transferred safely within the service to backfill the receding NHS funding and increase productivity. Knowledge researchers agree in general that the work-based knowledge transfer mechanisms such as mentorship and job shadowing best capture tacit knowledge. While knowledge transfer can create value health and wellbeing outcomes, it can have unfavourable effect. Szulanski (2000) and Schuller (2014) examined knowledge characteristics such as ambiguity in figuring out the difficulty of transferring knowledge categorised organisational factors

affecting knowledge transfer such as inability to absorb the knowledge, relationship difficulties between individuals (Mu et al, 2010; Szulanski et al, 2004; Argote 2000). This is important because a network of relationships build social capital and facilitate access to useful knowledge to increase the possibility of increased productivity.

## **Conclusion**

There are no easy answers to the challenges of increasing productivity in NHS as whole and school nursing. However, the author strongly believe that knowledge transfer gives a key to unleashing productivity potential in school nursing. It can be deduced from the contextualisation and literature that knowledge transfer can be routinised to give one of the most important resources of value for children, young people and their families. Organisations that consistently transfer knowledge using socially interactive tools have derived sustainable productivity in the private sector. However, many factors complicate the transfer of knowledge in organisations. While there is considerable consensus about using knowledge transfer to unleash productivity potential there is less agreement on how the complexities may complicate its success. It can be noted that barriers of knowledge transfer are widespread management problems in organisations. The highlight for future discussion is how transferred tacit knowledge is measured through observable changes in the performance of the individual or group but not in the absolute knowledge. These raises implications for school nursing leaders and managers as well as education providers.



Reference list:

Abhyankar P, MacGillivray S (2014). A systematic review of the effectiveness of interventions delivered by school nurses for school aged children aged 0-19 years for improved outcomes in health and wellbeing. Nursing, Midwifery and Allied Health Professions Research Unit.

Argote L, Ingram P (2000) Knowledge transfer: a basis for competitive advantage in firms. *Organisational Behaviour & Human Decision Processes*, 82 (1), pp. 150-169.

Argote L, Ingram P, Levine JM, Moreland RL (2000) Knowledge transfer in organisations: learning from the experience of others. *Organisational Behaviour & Human Decision Processes*, 82 (1), pp. 1-8.

Buchan J, Secombe I (2012) *Overstretched under stretched: The 2012 UK nursing labour market review*. London: Royal College of Nursing. Available From: [https://www.rcn.org.uk/\\_\\_data/assets/pdf\\_file/0016/482200/004332.pdf](https://www.rcn.org.uk/__data/assets/pdf_file/0016/482200/004332.pdf) [Accessed 14 June 2013].

Campbell P, Pollack A, Levati S, Frost R, Calvely E, Williams B (2014) Scoping review of reviews to support school nurse interventions in a school age population. Nursing, Midwifery and Allied Health Professions Research Unit.

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

Department of Health (2009) *Healthy Child Programme from 5-19 years old*. London: Department of Health.

Department of Health (2012) *Health and Social Care Act*. Available from: [http://www.legislation.gov.uk/ukpga/2012/7/pdfs/ukpga\\_20120007\\_en.pdf](http://www.legislation.gov.uk/ukpga/2012/7/pdfs/ukpga_20120007_en.pdf) [Accessed 11 November 2013].

Glasper A (2017) Are health visiting and school nursing in crisis? *British Journal of School Nursing* 26(14) pp: 826-827

Kane AA, (2010) Unlocking knowledge transfer potential: Knowledge demonstrability and superordinate social identity. *Organisation Science*, 21 (3), pp. 643-660.

Lam A (2000) Tacit knowledge, organisational learning and societal institutions: an integrated framework. *Organisation Studies*, 21(3), 487-513.

Levine S, Prietula MJ (2012) How knowledge transfer impacts performance: a multilevel model of benefits and liabilities. *Organization Science*, 23 (6), pp. 1748-1766.

Mu J, Tang F, MacLauchlan DL, (2010). Absorptive and disseminative capacity: Knowledge transfer in intra-organisation network. *Expert Systems with Applications*, 37, 31-38.

Nonaka I, Konno N (1998) The concept of "ba": Building a foundation for knowledge creation. *California Management Review*, 40(3), pp 40-54.

Nonaka I, Takeuchi H (1995) *The knowledge-creating company: how Japanese companies create the dynamics of innovation*. Oxford University Press: New York.

Nonaka I, Toyama R, Byosiére P (2001), *A theory of organizational knowledge creation: understanding the dynamic process of creating knowledge*. In Dierkes, M., Antal, A.B., Child, J., Nonaka, I. (eds.), *Handbook of organisational learning and knowledge*, pp.487-491, Oxford University Press: Oxford.

Phelps C, Heidl R, Wadhwa A (2012) Knowledge, networks, and knowledge networks: a review and research agenda. *Journal of Management*, 38 (4), pp. 1115-1166.

Schuller M (2014). *Stickiness in knowledge transfer*. In H. Hasan (Eds.), *Being Practical with Theory: A Window into Business Research* (pp. 61-63). Wollongong, Australia: THEORI.  
[http://eurekaconnection.files.wordpress.com/2014/02/p-61-63-stickinessin-knowledge-theory-theori-ebook\\_finaljan2014-v3.pdf](http://eurekaconnection.files.wordpress.com/2014/02/p-61-63-stickinessin-knowledge-theory-theori-ebook_finaljan2014-v3.pdf)  
(Accessed 18 August 2017)

Robertson 2016

Royal College of Nursing (2012) *The royal college of nursing position on school nursing*. London: Royal College of Nursing.

Royal College of nursing (2017) *The Best Start: The Future of Children's Health*. <https://www.rcn.org.uk/-/media/royal-college-of-nursing/documents/publications/2017/may/pub-006200.pdf>. (Accessed 14 August 2017)

Scotland's Chief Nursing Officer's (2013) *Public health nursing services – future focus*. Edinburgh. Scottish Government.

SCOTTISH government (2015) *The Children and Young People Act (Scotland) 2014*. Edinburgh. Scottish Government.

Scottish Government (2014) *Setting the Direction for Nursing and Midwifery Education in Scotland*. Edinburgh: Scottish Government.

Szulanski G (2000) The process of knowledge transfer: a diachronic analysis of stickiness. *Organisational Behaviour & Human Decision Processes*, 82 (1), pp. 9-27.

Szulanski G, Capetta R, Jensen RJ (2004). 'When and how trustworthiness matters: knowledge transfer and the moderating effect of causal ambiguity'. *Organization Science*, 15, 600–13.

The Health Foundation (2015) Twenty-one innovative projects are selected to improve the quality of health care. Available [online] <http://www.health.org.uk/news/twenty-one-innovative-projects-are-selected-improve-quality-health-care> [accessed 29 August 2017].

WRIGHT J (2012) *School nurse surviving guide*. London: Quay Books.