A change management approach to improving safety and preventing needle stick injuries

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Abstract

Key drivers for preventing healthcare-associated infection (HCAI) include evidence-based practices and procedures that prevent infection. Among the current guidance for preventing HCAs is evidence and mandatory requirements for reducing needle stick injuries (NSIs). This article highlights how John Kotter's model for change could help healthcare workers plan for successful and sustained deployment of needle safety devices (NSDs) and ultimately reduce the risk of a NSI.

Keywords

Infection, sharps, change, safety

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Introduction

Improving the quality of services is a key requirement for the National Health Service (NHS) (The Kings Fund, 2012). Current policy requires NHS Trusts to take a longer view of their services and adopt a Five Year Forward View, inclusive of a more engaged relationship with patients and to champion best practice as a way to encourage a culture of quality improvement (NHS England, 2014). A driver for service and quality improvement in the NHS is the increased use of technology. Technology can improve NHS services by increasing access to information, improving patient health outcomes and establishing a safer place to work (The Kings Fund, 2008).

Technology is integral to the future of nursing care and solutions are already in place to eliminate repetitive and mundane tasks, accomplish regulatory work and improving safety and efficiency (Department of Health, 2012). Infection prevention and control teams (IPCTs) support the delivery of healthcare involving technology and have seen advances in recent years that have assisted in developing practices, such as, innovative environmental decontamination methods, using hydrogen peroxide mist (Boyce et al., 2008), the creation of enhanced surveillance systems to

detect and report antibiotic resistant organisms (Public Health England, 2015) and improvements in rapid tests for methicillin-resistant *Staphylococcus aureus* (MRSA) screening which delivers faster results (Polisena et al., 2011).

Healthcare workers (HCWs) should be aware of the hazards of needle stick injuries (NSIs), which may lead to the transmission of a possible life-threatening and or life-changing blood-borne virus (BBV) infection. Even when a BBV infection does not occur, the HCW may suffer significant stress in the period before non-transmission is confirmed. To prevent this stress and the possibility of BBV transmission, it is incumbent on all NHS organisations to take all reasonable actions. Data submitted to the occupational exposures surveillance system between 2004 and 2013 showed that there were 4830 occupational exposures to a BBV reported among HCWs in England and Wales (Public Health England, 2014). These numbers are

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Figure 1. John Kotter's eight-step change model.

substantial and clearly show the extent of the problem (Wright et al., 2014).

Recent technological advances in IPC have seen the introduction of NSDs; these are medical devices with integral safety features that enable the safe use of sharps. They are designed to be either retractable or require a cover protection. The safety design is to prevent the user being exposed to a needle and sustaining a NSI (Loveday et al., 2014). Training and audits can be used to strengthen and monitor systems and minimise risks of NSIs. However, the adoption of NSDs is more effective than audit at preventing NSIs (Council Directive EU, 2010; MindMetre, 2014). The use of NSDs is now regulated and required in healthcare practice (Health & Safety Executive, 2013).

Studies have shown that the use of NSDs can prevent more than 80% of NSIs (Cullen et al., 2006). However, not all organisations are adhering to the mandatory requirement to use NSDs (Health & Safety Executive, 2016). A recent report highlighting sharp safety practices in 40 NHS organisations showed 45% breached sharps regulations and were issued with improvement notices (Health & Safety Executive, 2016). HCWs must be guided on current legislation and improve safety in the workplace by using NSDs (Health Protection Agency, 2012). The practice of using non-safe sharp devices needs to change. This article will highlight how John Kotter's model for change could help HCWs plan for successful and sustained deployment of NSDs (Kotter, 2012).

The Kotter model was selected because it is an easy step-by-step model that focuses on preparing and accepting change and the transition between the steps is easier. John Kotter considered what steps are required to transform organisations and summarised it in an eight-step change model (Kotter, 2012) (Figure 1).

The following sections will illustrate how the eight-step model could be used by IPCTs to implement change to NSDs. When introducing change into organisations there should be a specific time period allocated for the project's completion. A Gantt chart would be beneficial to keep the

project on track and for informing and engaging staff (LaBrosse, 2007).

Step 1: create urgency

Kotter's model is grounded in his observation that people and organisations generally resist change and omit some of the steps needed for successful and sustained change (Kotter, 2012). Kotter's first step is to create a sense of urgency. A sense of urgency for the change to NSDs could be shown by revealing numbers of staff sustaining NSIs in the organisation (Royal College of Nursing, 2013). Providing personal stories of the impact an NSI has had on a member of staff might also be useful as an adjunct to the raw data. Another creator of urgency would be to present information on the numbers of staff that have been exposed to BBVs annually. Also helpful would be highlighting that organisations are now being inspected to ascertain if they are using NSDs and penalised if they are not (Health & Safety Executive, 2016). Creating a 'sense of importance' to improve current practices can be the important catalyst for change.

Step 2: form a powerful coalition

Kotter advocates that to create a climate for change a powerful coalition must be formed (Kotter, 2012). Kotter's model of change highlights the importance of buy-in from employees. Certain key staff supporting the change will help play a critical role in its success (Kotter, 2002). Consideration should be made about the coalition and whose help should be enlisted. To form such a coalition the IPCT should look for people in powerful positions with broad expertise, highly credible and representative of the organisation (Department of Health, 2008). Attention should be given to people with leadership skills who are able to drive for change and encourage safer systems of working (Department of Health, 2008). There should be official authority within a project team to drive change;

securing senior sponsorship and support will help get things off the ground (Gifford et al., 2012).

Step 3: create a vision for change

Kotter values the importance of creating a vision to execute change (Kotter, 2012). A vision has been defined as a significant purpose with clear values and a picture of the future (Bush, 2008). An effective vision delivers an attractive picture of the future and draws people into support its achievement (Goffee and Jones, 2006). The IPCT can generate a sense of excitement through their personal values and vision. Microsoft's vision was '*A computer on every desk in every home*'; BMWs vision was '*The ultimate driving experience*'. An effective vision has staying power. Any proposed change to practise should encompass a picture of the future. The vision for the introduction of NSDs could be a safer working environment or zero avoidable NSIs.

Success depends upon persistence, simple repeatable messages and imaginative use of different channels to communicate those messages (Goffee and Jones, 2006). Covey (1998) argues that we should '*Begin with the End in Mind*' which means to begin each project with a clear vision of your desired direction and destination, and then continue to make things happen to reach the destination. An initial meeting to highlight the use of NSDs would help with staff engagement as it is the time to create a sense of urgency, get staff to buy in and build a coalition (Kotter, 2012). A meeting would be an ideal time to create a vision and communicate that vision (Kotter, 2012). The IPCT should create an idealised picture of the future that strikes a chord with the stakeholders (MacLeod and Clarke, 2009).

Step 4: communicating the vision

Kotter emphasised the need to shape a vision to help steer the change effort and develop strategic initiatives to achieve that vision (Kotter, 2012). It is important here to communicate the vision clearly and powerfully and embed it in all communication strategies from the IPCT. To help to communicate the vision, the IPCT need to demonstrate the behaviours required to achieve it, i.e. talking about the vision in all staff meetings, addressing people's concerns and anxieties, openly and honestly. Leaders have an important role in communicating the vision for change by creating a culture and climate that actively encourages, supports and enables the adoption of technologies to improve practices (The Kings Fund, 2008).

The leadership qualities required for communicating the vision are persuasiveness (convincing staff that to protect ourselves is to use NSDs), being thorough (asking questions and exploring staffs reservations to using NSDs), being confident (able to answer any questions to prevent the disruption of the change), a good communicator (communicating well at all levels in the organisation) and finally

an unwavering disposition (this is required in the face of adversity when there are constant resisters to the change) (Taylor-Bianco and Schermerhorn, 2006). However, not all staff in positions of leadership possess these leadership qualities, so to avoid problems with implementing change it is important that leadership programmes are available to develop these skills in staff (Øvretveit, 2005).

During the planning stage of introducing NSDs, a preliminary investigation should be undertaken to ascertain staffs' awareness of NSDs. A SWOT analysis could be undertaken to ascertain strengths, weaknesses, opportunities and threats the organisation has when adopting NSDs and what can be mitigated against these factors to encourage their use (Archibald and Archibald, 2013). It would also be beneficial to undertake a stakeholder analysis to identify everyone who has a concern or interest in the change to NSDs and those who need to be involved. It would help to identify the staff that require greater involvement, a lesser degree of participation and those groups on the periphery (Bryson, 2004). This would assist in staff engagement strategies and facilitate implementation.

Resistance to the NSDs may be raised when consulting with the stakeholders. Preparation for and addressing this resistance is key. The IPCT can weaken resistance for the change by informing the stakeholders of funding opportunities (i.e. budget allowances to buy the NSDs), provision of education and support in their implementation. The IPCT needs to be able to dispel uncertainty and any fears the stakeholders may have regarding the NSDs.

Step 5: empower action

The IPCT championing the introduction of NSDs needs to provide information on the NSDs and show how they operate, costs and what staff training is required. NSDs will change routines and staff need to become familiar with this new psychomotor skill in a practice setting before they adopt the devices on real patients. This would help to remove obstacles that work against the vision. Staff should be given opportunities to communicate and voice concerns and any problems with NSDs with an open-door communication policy being more conducive for organisational change (Bunker and Wakefield, 2006).

In trying to execute a change, leaders can make a common mistake by expecting others to 'just change'. To them their ideas are logical and they expect others to have similar views for what is required to improve the current situation. However, their followers may not be of the same opinion. Followers may be considering a personal question, 'What's In It For Me?' (WIIFM) (Goffee and Jones, 2006). Leaders of change should expect this reaction and prepare a response in advance. Answering the 'WIIFM' question, the IPCT could declare aspects of improved safety and the prevention of BBVs (Health & Safety Executive, 2016). The IPCT could empower action by asserting that if served an

improvement notice for breaching safety standards, this could negatively impact on the reputation of the organisation (MindMetre, 2016).

When implementing change the IPCT should be aware of the barriers to engagement, i.e. bureaucracy, high workload and lack of trust in leaders (Robertson-Smith and Markwick, 2009). Forbes (2014) found that some engagement tools can also demotivate NHS staff, i.e. with too frequent surveys and top-down communication. This is particularly poignant during tough economic times (Purcell, 2009). The IPCT should be aware of these barriers and anticipate questions regarding the cost of NSDs at a time when NHS Trusts are trying to save money (Department of Health, 2013).

Step 6: create quick wins

Planning the transition from using non-safety devices to NSDs requires careful handling and an awareness of project management skills (LaBrosse, 2007). It may be beneficial for the IPCT to contact other IPCTs who have already successfully deployed NSDs and ask how they managed the transition and what obstacles they faced. This may assist in the change and add some momentum to the process. The IPCT should set goals that are easy to achieve—in bite-size chunks. Core skills for effective project management require, negotiation, scheduling, risk management, critical thinking and good communication (Archibald and Archibald, 2013). Use of quick wins to energise the change, showing evidence on the reduction of NSIs may help to diffuse the critics. Any accomplishments in safety elements must be visible to the organisation (Dentinger and Derlyn, 2009). Short-term wins will help with staff engagement and help evaluate change along the way. Quick wins help to keep the project on track and reveals the benefits of the change. Real change should be maintained by building on what went right and how this can be improved. For example, building on the successes of staff using the NSDs and showing how they have led to a reduction in NSIs can be a real quick win for the change.

Step 7: build on the change and don't let up

Introducing change slowly into practice is necessary, as too rapid an introduction can lead to failure (Gifford et al., 2012). Kotter argues that change projects can fail because victory is declared too early. Short-term wins are only the beginning of what needs to be achieved in the longer term. It is necessary for the IPCT to continue to look for improvements and not to diversify into other projects or 'take their foot off the gas'. It is a time to build on what went right and how this can be improved upon. Setting goals to continue to success is required at this stage. Change will only happen if the leaders of change want it to; they need to be persistent,

include key stakeholders and not let up. Cultivating a true 'continuous improvement' culture in an organisation means continually pushing up the standard of the 'desired state'. Promoting the ethos that 'we are all in this together' will get change agents to the 'desired state' a lot quicker (Willis et al., 2016).

Step 8: make change stick

Finally, to make any change stick; it should become part of the core of the organisation (Lles and Sutherland, 2000). It is important that the senior staff in the organisation supports the change as this will help to sustain it. Continuous reinforcement of the change is required in the earlier days of the implementation, as this will enable the change to stick. The quality, efficiency and 'perceived fairness' of the reporting and feedback system of the change may influence the decision-makers to adopt the NSDs (Jeffery, 2009). The end stage of change implementation would involve the IPCT recognising and rewarding staff that have been involved in the change process to NSDs. Recognition and reward for any change initiative is vital if the change in practice is to be implemented and sustained (Rayton et al., 2012). Having data, which shows a reduction in NSIs, will enable the staff to see that this has been worthwhile.

Final comments

Kotter's model would be effective for the NSD change as it can be seen as a means to galvanise support from staff and change can be implemented in a methodical way. However, caution will still be required when using this model as steps cannot be skipped and staff may lose interest if change is implemented over a long time frame. It has been argued that if a change model is a top-down approach, it may lead to staff disengagement from the change process (Dentinger and Derlyn, 2009), as staff may feel uninvolved. However, the model has been used to successfully implement change in healthcare settings (Burden, 2016). Kotter's guidance on sustaining change is to ensure it is anchored into the corporation's culture (Kotter, 2012). He argues that there should be a connection made between the new behaviours and the organisations success and the development of leadership is key to this.

Conclusion

Sustaining a NSI can be devastating and prevention by changing practices to ones that are recognised as safer is of vital importance.

This paper described how John Kotter's eight-step model could help to foster an environment for change and assist in designing a project to implement NSDs. To improve the quality of services and optimise safety, it is necessary to have an understanding of change models and

the leadership needed to successfully effect a system change. When changing practice, a change management model can help to describe and simplify and plan change. The steps within a model can help us to identify barriers to change and offer ways of overcoming these barriers so enabling change to happen.

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