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Promoting health workers' ownership of infection prevention and control: using Normalization Process Theory as an interpretive framework

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SUMMARY

Background: All health workers should take responsibility for infection prevention and control (IPC). Recent reduction in key reported healthcare-associated infections in the UK is impressive, but the determinants of success are unknown. It is imperative to understand how IPC strategies operate as new challenges arise and threats of antimicrobial resistance increase.

Methods: The authors undertook a retrospective, independent evaluation of an action plan to enhance IPC and 'ownership' (individual accountability) for IPC introduced throughout a healthcare organization. Twenty purposively selected informants were interviewed. Data were analysed inductively. Normalization Process Theory (NPT) was applied to interpret the findings and explain how the action plan was operating.

Findings: Six themes emerged through inductive analysis. Theme 1: 'Ability to make sense of ownership' provided evidence of the first element of NPT (coherence). Regardless of occupational group or seniority, informants understood the importance of IPC ownership and described what it entailed. They identified three prerequisites: 'Always being vigilant' (Theme 2), 'Importance of access to information' (Theme 3) and 'Being able to learn together in a no-blame culture' (Theme 4). Data relating to each theme provided evidence of the other elements of NPT that are required to embed change: planning implementation (cognitive participation), undertaking the work necessary to achieve change (collective action), and reflection on what else is needed to promote change as part of continuous quality improvement (reflexive monitoring). Informants identified barriers (e.g. workload) and facilitators (clear lines of communication and expectations for IPC).

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Conclusion: Eighteen months after implementing the action plan incorporating IPC ownership, there was evidence of continuous service improvement and significant reduction in infection rates. Applying a theory that identifies factors that promote/inhibit routine incorporation ('normalization') of IPC into everyday health care can help explain the success of IPC initiatives and inform implementation.

Background

Traditionally, a 'top-down' approach has been taken to implement infection prevention and control (IPC) initiatives from managers to frontline health workers. This strategy has been criticized because it does not promote sustainability and ignores the local context where change is introduced.[1] Top-down approaches do not fit with current opinion that all health workers should accept responsibility for IPC,[2,3] and performance targets imposed from above are often regarded negatively.[4]

The need for frontline staff to assume 'ownership' (individual accountability) is emphasized in international guidelines for IPC;[5] however, little research has been undertaken to explore how it can be promoted, and the term is seldom defined.[6] The exception is a study undertaken by Zimmerman *et al.* in five Canadian hospitals.[7] Here, ownership was defined as health workers' ability to identify IPC problems in their own clinical service independently of the IPC team, find solutions and enact them, drawing on IPC expertise as required. Key elements of IPC ownership were identified as excellent communication between frontline health workers, IPC specialists and managers; encouragement for staff to exchange ideas to promote good practice; innovate and customise interventions to meet local needs; and a climate where it was possible to learn from mistakes by acting on feedback to continuously improve performance. Success depended on frontline staff receiving and responding to local metrics, remaining constantly mindful of IPC, and being willing and able to engage in action to stimulate change.[7]

The aims of this study were to explore the meaning of IPC ownership to health workers, and to evaluate the impact of an action plan to encourage IPC and IPC ownership throughout a National Health Service (NHS) health board in Wales, UK. Events leading up to creation of the action plan are shown in Figure 1. Its aims are shown in Figure 2. Ownership was defined as all staff taking personal responsibility for their own IPC standards.

Wales is a small country with health care provided by seven health boards combining acute and community care. They work very closely with the Welsh Government and Public Health Wales to prevent and control healthcare-associated infection (HCAI). The incidence of *Clostridium difficile* became a national concern in 2012. Senior staff in the health board featured in this evaluation decided that action was needed in April 2013. In October 2013, senior members of the infection prevention and control (IPC) team visited National Health Service (NHS) trusts in England recognized nationally for their continuous quality improvement in IPC. Attendance at IPC meetings was very low in the health board compared with these successful NHS trusts, and they displayed higher levels of commitment to IPC at all levels in the organization, indicated by the volume and quality of metrics reported routinely and evidence of metrics being used to change practice. Individual accountability for IPC was thus identified as an important component of effective IPC strategies. Its importance was discussed with senior managers in the health board. An independent enquiry to address *C. difficile* and HCAI more generally in the health board also emphasized the value of IPC ownership. In November 2013, a new governance and IPC committee structure was established. A steering group was set up to address failings in the prevention and control of HCAI, especially *C. difficile*, and the action plan was generated.

Figure 1. Events leading to creation of the action plan.