Changing clinical team practices in preparation of patients for Total Knee Replacement: using Social Cognitive Theory to examine outcomes of an action research study

Abstract

Aims and objectives. To examine, through the lens of Social Cognitive Theory, the process of change when developing a preparation programme for patients awaiting Total Knee Replacement Surgery.

Background. Social Cognitive Theory has been used extensively in occupational psychology to explain and change human actions. It has not been widely used to examine the actions of clinical teams when developing practice.

Design. Action Research

Methods. Four action cycles were undertaken to develop an information booklet and multidisciplinary Knee Clinic at an acute hospital for patients waiting for Total Knee Replacement surgery. The process of change, led by a staff and service user Project Management Group, was examined through fieldnotes, interviews, observation and a reflective diary. The data were analysed using the theoretical framework of Bandura's Social Cognitive Theory.

Results. The change process was influenced by personal, environmental and behavioural factors. Self-efficacy and outcomes expectations of staff and service users varied and impacted the level of their involvement in the study. Environmental factors influenced the scope of the project. The behaviour of the Project Management Group facilitated change through the development of team working and involvement in the action cycles. The results of this initiative achieved clinical changes which had not occurred during previous attempts at service development.

Conclusion. Social Cognitive Theory is an appropriate and useful theoretical framework both for retrospective analysis and to inform planning of practice changes within the clinical setting

Keywords. Social Cognitive Theory, action research, service user involvement, total knee replacement, multi-disciplinary teamwork, nursing, practice development

INTRODUCTION

Understanding effective processes to achieve change is essential for service development to meet the challenges of contemporary healthcare. This paper explains the change process associated with a dynamic pre-operative programme for patients with osteoarthritis (OA) awaiting Total Knee Replacement (TKR) surgery.

In 2006, at a time of high orthopaedic surgery volume in England and a government target of 18 weeks from General Practitioner (GP) referral to hospital treatment, including surgery if appropriate (Department of Health, 2000), a number of national initiatives were developed to help acute hospitals redesign their orthopaedic services, such as the Orthopaedic and Better Care Without Delay (BCWD) Collaboratives (Bate and Robert, 2003). Preliminary analyses of work at the study site by the researcher (BL) had indicated that this programmatic 'top down' approach had enabled the orthopaedic clinical team to identify areas for change but had not fully realised the intended changes and many staff did not believe they could effect change. However a group of staff and service users, past TKR patients, indicated their willingness to work to develop the service. The action research project reported here developed from a preliminary study and was designed to develop the service and examine the process of change. Such projects remain important as the demand for surgery continues to rise and world-wide healthcare systems are endeavouring to find ways to maximise efficiency.

BACKGROUND

Social Cognitive Theory (SCT) provides a framework for understanding, predicting and changing human actions. According to SCT people are neither driven entirely by inner forces nor automatically shaped and controlled by external stimuli, and their actions are a product of interaction between personal factors, behaviour and the environment (Bandura, 1977; Bandura, 1986). In SCT, behaviour, cognitive and personal factors, and environmental events all operate as interacting

determinants of each other. Key personal factors are self-efficacy - the conviction that one can successfully execute the behaviour required to produce the desired outcomes (Bandura, 1977) - and outcomes expectations: a person's estimate that a given behaviour will lead to particular outcomes (Bandura, 1977). A literature review was undertaken to identify factors affecting the actions of individual professionals and teams in changing practice through the lens of SCT.
The search strategy for this project involved a search of seven electronic databases (CINAHL, MEDLINE, EMBASE, PsycINFO, Psychology and Behavioral Sciences Collection, Business Source Complete, and DH-Data) to identify English language literature published since 2000. Older seminal work was considered, such as that on self-efficacy (Bandura, 1977). Key search words were behaviour, behaviour change, actions, change management, SCT, self-efficacy, professional practice, teams and practitioners and their synonyms. Thesaurus mapping and Boolean operands were used. Titles and abstracts were read to identify relevant articles and their reference lists scanned for further literature. Quality assessment of the included articles used published frameworks (Greenhalgh, 2001).

Personal factors

Studies of individual professional practice identified that personal factors such as self-efficacy beliefs and personal experiences impact willingness to consider and undertake change. A meta-analysis found self-efficacy belief responsible for 28% gain in worker performance (Stajkovic and Luthans, 1998), although other more distal personal variables, such as experience and emotional stability, were also important (Judge et al, 2007). Individual self-efficacy beliefs predicted collaborative practice (Le Blanc et al., 2010). At the team level considerable evidence from organisational psychology studies of business or manufacturing teams showed those with higher collective efficacy performed to higher standards (Bandura, 1997: Gully et al, 2002: Hoyt et al, 2003). The nature of the task was also significant with highly interdependent tasks requiring greater collective efficacy (Salas et al., 2005; Katz-Navon and Erez, 2005; Greenhalgh et al., 2004). Much of this evidence came from simulation studies rather than natural environments and the impact of

specific variables such as self-efficacy may have been exaggerated in the absence of environmental constraints (Stajkovic and Luthans, 1998). Little of this evidence derived from healthcare and studies of adoption of innovations in healthcare settings have largely ignored the influence of individuals' characteristics (Greenhalgh et al., 2004).

Environmental factors

Internal and external environmental factors have been shown to influence change processes in various ways. A key internal factor often flagged is that of leadership. Transformational leaders encourage human development and interaction and promote collective motivation and outcomes (Jung and Sosik, 2002). Such leadership has been positively related to individual and team cohesiveness, performance and efficacy (Jung and Sosik, 2002; Walumbwa et al., 2005; Nielsen et al., 2009; Salanova et al., 2011). However, with the NHS described as a professionalised organisation where power is derived from professional knowledge as well as position or hierarchy (McNulty and Ferlie, 2004; Fitzgerald et al., 2006), there are multiple sources of influence and further work into the nature of social influence and the operation of different social networks in health services is required (Greenhalgh et al, 2004). The impact of local circumstances on change projects may be particularly felt in environments of constant change such as within the NHS (Bridges and Meyer, 2007; Herold et al., 2007), and small scale changes may struggle to survive within large organisations which do not share a common culture (Buchanan et al., 2005; McCormack et al., 2006).

External environmental factors also play a part; for example external targets such as the 18 week pathway have been shown to influence activity. In recent years service users have been increasingly involved in research and service redesign. Accounts of patient experiences are unique and precious (Bate and Robert, 2006) and need to be heard by practitioners. However service user involvement should extend beyond patients simply sharing their experiences. Service users can participate in decision making about services (Smith et al., 2008). The use of Experience Based Design (EBD), a joint venture between service users and

professionals over time to co-design a service, has the potential to allow access to the knowledge patients have from personal observation or contact (Bate and Robert, 2006).

Behavioural factors

The activities that people carry out can also influence actions (Bandura, 1977). The experience of involvement in change can raise self-efficacy beliefs (O'Brien, 2002). Effective team behaviour is dependent on mutual performance monitoring, back up behaviour (assisting team mates or completing the task for them), adaptability and team orientation (Salas et al., 2005). Teams who assign tasks interdependently (Alavi and McCormick, 2008) and who have positive group processes such as mutual goals, individual accountability, equal participation, good communication and decision making models (Cheng et al., 2008) have reported higher collective efficacy, although these were in single studies from non-healthcare settings.

Overall whilst SCT provides a suitable theoretical framework for examining change, few studies within healthcare have used it. In-depth single site studies can provide rich detail to examine the impact of the three factors of SCT on processes of change.

METHODS

Aims and objectives

The overall aim of the project was to develop and implement an intervention to improve patient preparation for TKR Surgery. The aim of this paper was to explain the processes of change that this involved using SCT as a framework.

Project design

The project used an action research design. Action research 'combines research into substantive issues ... with research into the process of development in order to

deepen understanding of the enablers of, and barriers to, change. It is a means whereby research can become a systematic intervention, going beyond describing, analysing and theorizing social practices to working in partnership with participants to reconstruct and transform those practices' (Somekh, 2006, p1). It facilitates reflection and research whilst also driving forward innovation (Waterman et al., 2007). A cyclical process is employed where potential changes are identified, introduced into practice and the findings fed back to project participants to support learning and planning of future action cycles (Amro et al, 2010, 2011). Securing participation may be difficult and requires proactive researcher behaviour, characterised as 'performing' (a formal role in organising meetings) and 'backstaging' (work behind the scenes to encourage attendance and commitment) (Coghlan and Casey, 2001).

Setting and sample

The project was undertaken at an outer London acute NHS hospital over ten months (December 2005 – October 2006). Financial cutbacks in 2006 influenced the climate in which the study was undertaken.

A Project Management Group (PMG) was established at an initial launch event consisting of hospital staff and service users, who were patients who had undergone TKR surgery at the project site. Purposive sampling was used: people recruited were chosen for their knowledge and insight of the topic. Nineteen clinical and non-clinical staff members were approached via e-mail and 17 agreed to be involved. Ten service users chosen at random from a list of ex-patients were contacted via telephone. Five responded and were posted study information sheets, and consented to participate. The final service user sample consisted of three females and two males, with a mean age of 61 (range 57-73) years.

Role of the researcher

The researcher (BL) was an insider within the organisation, working as a nurse practitioner assessing patients before TKR surgery and reviewing them in the outpatient clinic after surgery. Insider researchers usually have a strong desire to

influence and make changes and are motivated to persist in the face of difficulties (Brannick and Coghlan, 2007). They have the advantage of access to material and events which would be difficult, if not impossible, for an outsider to access, and knowledge about their organisation's everyday life (Coghlan, 2001). However they need to be aware of how their organisational role influences both how they view their role and how others perceive them (Coghlan and Holian, 2007). A reflective diary and discussion with academic supervisors (CC, LP, JB) was used to reduce the risk of making assumptions during the project.

Ethical considerations

The acute Hospital's Research and Development Committee and the Local Research Ethics Committee approved the project. Consent in action research is a complex issue, as the project is a journey and neither researcher nor participants know exactly where this will take them in advance, hence they cannot fully know to what they are consenting (Williamson and Prosser, 2002). PMG members gave initial written consent at the beginning of the project, ongoing consent through continuing participation in the meetings and explicit verbal consent prior to interviews held at the end of the project.

Data collection and analysis

Nine monthly PMG meetings were held after the initial launch event. These meetings had a two-fold aim: planning and reviewing the action cycles and reflection on the progress of the project, including the change process. The researcher took field notes during PMG meetings which were distributed to the members who attended with the opportunity for checking and correction. They were then sent to all staff and service user members of the group.

Semi-structured interviews were undertaken with staff (n=12) and service users (n=4) at the end of the project. Three staff left the hospital before the project ended and two were not interviewed as they attended only one PMG meeting. One service user could not be contacted to arrange an interview. The interviews provided the opportunity to gain understanding of their participation from a different

perspective than other data collection methods. Each interview lasted for 15-30 minutes and was tape recorded and transcribed verbatim.

A reflective diary was maintained during the project, providing evidence of the processes of the study, the researcher's involvement and issues influencing involvement. PMG members were not willing to keep diaries but they agreed to discuss their thoughts about the project at the PMG meetings and in interviews. The revised ninety minute Knee Clinic was observed on two occasions by a staff and a service user member of the PMG group. An existing checklist encompassing the environment, interactions, events and feelings was used (Spalding, 2004), Observers' notes were typed up for the purposes of analysis. Modified grounded theory as delineated by Burnard (1991) was utilised for the process of analysing the data. Themes were identified and assigned headings or categories (open coding). Themes were checked by colleagues, academic supervisors and interviewees (member checking). Rigour was demonstrated by maintaining an audit trail to enhance dependability and credibility. Details of the study setting and participants enable readers to consider the transferability of study findings.

RESULTS

Findings presented relate to the personal, environmental and behavioural factors impacting change processes during the project. Service developments achieved during the project have been reported (reference to follow) and consisted of development and implementation of an information booklet and a multidisciplinary Knee Clinic.

Personal factors affecting change

Staff and service user interviews indicated differing self-efficacy and outcome expectation beliefs about the project. Physiotherapists, Occupational Therapists (OTs) and nurse practitioners, including the researcher, had high self-efficacy

beliefs about their clinical skills within the revised Knee Clinic. Some staff and service users also had previous mastery experience of change projects:

> I've done quite a lot of change management and project management before, so hopefully I've been able to add a bit of, sort of, insight from that side of things. (Staff 1)

> I've done some community work in the past ... I guess my professional expertise in terms of being a community group worker. (Service user 1)

Evidence for the development of group self-efficacy came from the behaviour of the PMG members in changing practice, with interview data revealing evidence of this:

> That's what we did; it was the needs identified by the multidisciplinary team and users so it wasn't really anything to do with management (Staff 2)

For others, previous attempts at change had been negative and this impacted their self-efficacy beliefs that the PMG could change practice within the project.

> I think we have multiple problems at the moment in orthopaedics and we all seem to know where we want to be and it's getting the people to reorganise and to look at who does what. (Staff 5)

For the service users one outcome of the project was giving something back to the orthopaedic service:

> Me personally, sort of to help you in a way because I'm grateful for what you and people have done for me. (Service user 3)

Others did not feel that their outcome expectations were being met. Some therapists and managers indicated that the scope of the project was too narrow:

> I felt a little uncomfortable concentrating on knees and very much thinking the hips for me are more of a priority because of the heights of the furniture. (Staff 3)

There was also concern expressed that there was no opportunity for individual assessment of patients within the Knee Clinic:

> If resources permit we should ideally be giving them 5 minutes 1 to1. (Staff 4)

Some staff wanted specific outcomes measured which were not those being studied for the project, for example costs. However, other staff eventually came round to be positive about project outcomes by the conclusion:

> At least in 9 months we actually achieved something and got something that's continuing. (Staff 6)

Environmental factors affecting change

Data from fieldnotes, interviews, observations of the Knee Clinic and the researcher's reflective diary revealed that developments which took place within the project were influenced by the environment. Within SCT 'environment' includes other people, the physical environment and mental representations of that environment, such as thoughts about time (Bandura, 1986).

PMG members reported that the role of the researcher (BL) in leading and co-ordinating the project impacted its success:

> The main thing that helped us go well was your organising it and pushing it (Staff 2)

> You had to drive everything, to keep the momentum going (Staff 5)

The Knee Clinic was held in the physiotherapy gym which had the advantage of access to crutches and couches on which to demonstrate the exercises. However it was only available for 90 minutes each week which limited what could be achieved within a single session.

The hospital's financial situation impacted the project by limiting funds and time available:

> Things such as the amount of time we spend discussing who will do photocopying ... things that normally should be quite small issues that when you're changing people's jobs or cutting down numbers of staff or trying not to spend money, that the small things became quite big issues. (Staff 1)

Staff worried about implications of the financial situation for their posts:

> Everyone is worried about jobs and services. There are, inevitably lots of rumours going around and I think it makes people less likely to want to spend time looking at developing things. (Researcher reflective diary)

Field notes from January 2006 indicated that the PMG were planning to include an initial patient physical health screen at the Knee Clinic. However the Hospital Board agreed in December 2005 to introduce patient health screening in the outpatient department when each patient's name was added to the waiting list, as part of a plan to centralise all pre-operative assessment in the hospital. The PMG members felt that a health screen at the Knee Clinic would duplicate this and agreed not to pursue it.

Perceptions of time impacted on the project in several ways. For some PMG members it was difficult to find the time to attend the monthly PMG meetings:

> An hour and a half a month is quite a big time commitment, and that's why I, despite being committed to the project, couldn't be there all the time. (Staff 1)

> You've got to come out and be away from work for 2 to 3 hours, its, the guvnor doesn't like it much. (Service user 2)

At the outset it was agreed that each PMG meeting would last 90 minutes, to allow for discussion of the project and reflection on the process. Field notes indicated that staff and service users often arrived late and left early and by the end of the project the PMG meetings were lasting an hour. This limited the opportunity for discussion; for example at the August 2006 meeting only 15 minutes were available to discuss how to develop service user involvement, consistency of content within the Knee Clinic, and the focus of the final two PMG meetings.

The action cycles were also affected by time pressures. In particular the physiotherapists sometimes found it difficult to attend the Knee Clinic:

> Well obviously operationally it's a problem ... I know it's only 20 minutes every now and again but it also means we can't invest that 20 minutes in the wards (Staff 7)

The final environmental factor was lack of direct involvement of the Orthopaedic Consultants in the project. Neither of the two Consultants who had agreed to participate in the project attended either the launch event or any of the PMG meetings. One agreed to review the information booklet and both were interviewed at the end of the project. Their non-involvement was felt keenly by staff and service users:

> I think maybe the hindrance was that it would have been useful to have consultants there. (Service user 1)

None of the participants could identify what the project failed to achieve without consultants involvement. The consultant interviews revealed other commitments prevented their attendance but that they were happy for the project to develop without their involvement because they worked with and trusted the researcher:

> Clearly if it's someone who's worked here a while and we know they're good at what they're doing, it's much easier for us to be involved on the odd occasion. If it was an external person coming in to do it, then it would need to be supervised a lot more closely' (Staff 8)

Behavioural factors affecting the change process

Data from the interviews, fieldnotes, observations and reflective diary demonstrated development of a participative model of change and patient preparation supported and reinforced by communication content and style at and between the PMG meetings. The researcher produced notes of the PMG meetings on the same day and e-mailed them to everyone who had expressed an interest, including the Orthopaedic Consultants, not just the attending PMG members. One unexpected finding was that communication between the service users was beneficial beyond the original project aims. They found it helpful to talk together about their recovery:

> It's pretty much conclusive that what people need to do is to talk about it, that aids recovery to have that kind of support group. (Service user 1)

This was also the case when the researcher met, as part of an action cycle, with other service users who were volunteering to take part in the Knee Clinic:

> One striking thing for me about the user meeting was that whilst all the patients had surgery 9-12 months ago there was still a great need for them to discuss their post-operative recovery, which was still taking place for many of them. (Researcher reflective diary)

This led to the formation of the Joint Information Group (JIG), a service user led group which provided a rota of service users for the Knee Clinic and also organised six weekly coffee mornings for patients who had had joint replacement surgery, as a place to reflect on their experiences.

Shared decision making occurred within the PMG meetings but was affected by the varied attendance of members. Table 1 illustrates numbers attending each meeting. Four staff and three service users attended five or more PMG meetings. Some participants indicated that attendance was very important to them:

> I didn't want to not attend any more than 2 or 3 in a row because by then I'd be missing out on some of that key decision making. (Service user 1)

One example of shared decision making was the decision not to introduce the psychological assessment of patients at the Knee Clinic, in particular their self-efficacy beliefs. A short presentation about the importance of self-efficacy was provided by the researcher at the first PMG meeting but the PMG meeting fieldnotes indicated that the members were more interested in interventions such as helping patients gain mastery experience of crutches/exercises than psychological assessment.

PMG members were involved in the action cycles to varying degrees. For clinical staff and some of the service users involvement entailed participation in the Knee Clinic; others became involved in data collection through observation of the Knee Clinic; some took on administrative tasks such as mailing letters to former patients seeking their help in the Knee Clinic as past service users.

Overall, data demonstrated the impact of personal, behavioural and environmental factors on the progress of the project.

DISCUSSION

The aim of the project was to develop an intervention to improve the preparation of patients for TKR surgery, whilst simultaneously examining the change process. Using the lens of SCT findings related to this change process supported and extended current knowledge.

Changing team practice in healthcare

The project provided a rich picture of successful practice change by an orthopaedic clinical team and demonstrated that SCT can help explain changes which occurred. It therefore offers a framework by which to plan practice change. Current NHS initiatives have at their core increasing the quality of care through a locally-led and clinically driven approach (Department of Health, 2010) and the findings of this project demonstrate how this can be achieved in practice. With more than 15% of English patients admitted for orthopaedic treatment during 2011 waiting longer than 18 weeks (British Orthopaedic Association, 2012), these findings continue to be highly relevant for clinicians and project leaders.

Personal factors

The personal beliefs of the PMG members about the project varied and this variance may have accounted for differing degrees of involvement in the project. This finding is important as the impact of individual's characteristics has been largely ignored in relation to local propensity to adopt innovations in healthcare (Greenhalgh et al., 2004) despite some evidence that individual self-efficacy predicts collaborative practice (Le Blanc et al., 2010). Previous attempts by the clinical team to change practice as part of national programmes such as BCWD had failed, resulting in a lack of positive mastery or vicarious experiences. These factors have been demonstrated in occupational psychology literature as important

in developing collective efficacy beliefs (Goddard et al., 2004) and achievement of improvements in performance (Gully et al., 2002). Clinical teams need to examine their previous history and current beliefs about a project in order to maximise individual and group self-efficacy and outcome expectations.

Environmental factors

Environmental influences on change were the nature of the change, the scale of the project, the financial status of the acute hospital, project leadership and the level of involvement of the orthopaedic consultants. The nature of the change being attempted impacts the success of its implementation: (Katz-Navon and Erez, 2005; Salas et al., 2005; Greenhalgh et al., 2004). For example, changes with a clear advantage and which are compatible with the values and norms of the intended adopters are more easily adopted. The overall aim of this project was compatible with wider organisational aims, such as more effective patient preparation for surgery. This 'fit' contributed to its success and sustainability, also found in other studies (Buchanan et al., 2005). Nonetheless, some participants had different outcome expectations about the project; whilst not preventing progress this was reflected in different degrees of satisfaction with project achievements.

Few studies consider the impact of the scale of the project on the outcomes (McCormack et al., 2006): this project demonstrated that a smaller project along a patient pathway may be more successful than wholesale redesign. Such projects should not occur in isolation or an incomplete or convoluted pathway may emerge. Action research allows in-depth project working (Amro et al, 2010), and an overall management group could ensure congruency between projects. Staff concerns about job security and financial constraints meant that some aspects of the project, for example securing funding for the printing of the information booklet, were problematic. Other studies have also demonstrated the impact of local circumstances on project outcomes (Bridges and Meyer, 2007).

Some of the PMG members believed the project was well-managed and that this was a factor in its success. The researcher initiated and facilitated the project,

which involved ‘back office’ activities of organisation and encouragement highlighted in the literature as important work for action researchers (Coghlan and Casey, 2001; Waterman et al., 2007). These are also some of the attributes of an effective team leader (Salas et al., 2005) and may have impacted the development of individual and collective efficacy within the project (Walumbwa et al., 2005; Nielsen et al., 2009; Salanova et al., 2011).

The project demonstrated that it is possible to change clinical practice without the direct involvement of medical staff. This is a contentious consideration within healthcare where professional autonomy is important at micro or clinical level (McNulty and Ferlie, 2004) but where power derives from professional knowledge as well as position and hierarchy (Fitzgerald et al., 2006). The orthopaedic consultants were neither actively engaged with this project nor obstructive of it. This was attributed to their trusting working relationship with the researcher, an advantage of the insider research role.

Behavioural factors

The PMG members behaved in ways which influenced the changes that were made. They worked within the meetings to plan, discuss, analyse and refine the test cycles. They decided which test cycles should continue and which, such as psychological assessment, should not be pursued. They participated in the test cycles themselves in various roles from data collectors to clinicians changing the way they worked. The PMG developed into an effective team, demonstrating the behaviours of good communication and adaptability identified in the literature (Salas et al., 2005).

SCT holds that the three factors of person, environment and behaviour operate as interacting determinants of each other (Bandura, 1986) and this was demonstrated during the project. The project itself was an environmental factor which provided the opportunity for staff to see that they could change the way they worked and that this would not necessarily have a negative impact on their working lives. Some staff did not have high expectations of the project but nevertheless participated,

and it appeared that this participation modified their behaviour in that they continued to provide support to the Knee Clinic after the project ended.
For the service users the project provided the environment for them to share and use their experiences of TKR surgery with staff and other patients. They helped to shape the direction of the project, an example of experience-based design (Bate and Robert, 2006). This changed the environment through the decision to set up a service user group for others to share their experiences of surgery after the project ended.

Strengths and limitations of the project

The project was an example of insider action research in which an insider researcher worked with colleagues to change practice and examine the change process. The insider status allowed access to material and events difficult for an outsider to access using formal data collection methods. The project was conducted on one site, allowing an in-depth investigation of change in a particular setting within its environmental context. Readers can judge the 'fittingness' of findings with their own settings and judge its usefulness to their practice (Somekh, 2006), whilst conclusions drawn from findings through the lens of SCT add to the body of knowledge (Coghlan and Casey, 2001).
The project had a short time frame of nine months, which limited what could be achieved. All staff attended meetings and participated in action cycles when they could as no staff replacement funds were available. This probably slowed project changes, not unusual in unfunded projects (Waterman et al., 2005).

CONCLUSION

Action research has been proposed as a means to research innovation in health service delivery and organisation (Greenhalgh et al., 2004). This project demonstrated how this can be carried out in practice. It showed an action research approach used in conjunction with SCT, with attention directed to addressing the personal, environmental and behavioural aspects of human actions. The project demonstrated the value of SCT to explain why individuals and teams within

healthcare act as they do when changing practice. It showed that personal characteristics such as self-efficacy and outcome expectancy beliefs were crucial in determining the extent of involvement of individuals in a team change project. It demonstrated SCT as a relevant theory for explaining and changing human actions in healthcare, and suggests potential benefit for its use when planning service change.

Contributions

Research design: BL, CC, LP; Data collection and analysis: BL, CC, LP, JB; manuscript preparation: BL, CC, LP, JB.

Project Management Group meeting	Total number of participants
December 2005 – launch event	14
January 2006	10
February	10
March	7
April	10
May	6
June	8
August	9
September	7
October	10

Table 1: Numbers of participants at each Project Management Group meeting

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