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Effectiveness of Multi-Professional Team Working (MPTW) in Mental Health Care

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Effectiveness of Multi-Professional Team Working (MPTW) in Mental Health Care

Full Proposal

Scientific summary

There is sufficient evidence to show that multi-professional team working (MPTW) can lead to significant improvements in productivity and patient/user care in health and social care settings. The key is knowing how to develop and sustain effective MPTW. The overall aims of this research are therefore first to identify the principle factors that ensure multi-professional team working (MPTW) is effective in improving health outcomes; and second to develop recommendations to improve MPTW in healthcare. The difficulties of establishing effective MPTW in health and social care are well recognised but recent research based on the Healthcare Commission National Staff Survey suggests that as many as 50% of all NHS staff work in poorly structured or "pseudo" teams. Such entities are associated with relatively high levels of errors, accidents and poor staff well being (Dawson, 2007). We propose to use an overarching theoretical framework to assess the factors that influence the effectiveness of MPTW.

We will also focus on four key areas of MPTW suggested by previous theory and research. First, research in MPTW has shown that professional diversity can lead to different expectations of outcomes (El Ansari, 2003) and damaging team conflict, and we aim to discover how to prevent this while achieving the synergistic gains from diversity (West, 2004). Second, we will examine how to promote effective *inter*-team working which is crucial to MPTW effectiveness and is hugely important from the perspective of users and carers concerned with continuity of care. Third, we will examine how to promote team reflexivity (the extent to which teams review their performance and then initiate improvements) (West, 2000). And fourth, we will examine key organisational and managerial factors in the whole system of service provision within which teams operate since they are highly likely to influence MPTW effectiveness (West & Markiewicz, 2004).

We propose to focus research resources in one sector (mental health). In line with recent policy imperatives, the research will explore team working for two priority groups: adults and older adults with mental health problems experiencing significant levels of disability. Localities within each of thirteen sites (trusts and associated local authorities) will be sampled across England. The first stage of the research will develop measures of MPTW effectiveness by involving all key stakeholders using methodology based on the Productivity Measurement and Enhancement System (ProMES; Pritchard, 1990). In the second stage we will apply standardised measures of team inputs, processes and outputs to determine which factors are most important in MPTW effectiveness. The third and final stage will be a qualitative, in-depth study of teams to identify organisational, management and leadership processes associated with effective multi-professional team working.

Once informed by our research findings we will produce a resource for cost-effectively developing MPTW in healthcare across the NHS.

Lay summary

Healthcare professionals must work together effectively in teams to provide the best possible patient care. However, previous research shows such multi-professional teams are often not

clear about their objectives, disagree about that their goals, their leadership and how to work together, or they find themselves trying unsuccessfully to meet the conflicting demands of senior managers from different disciplines and departments. The Healthcare Commission has discovered that as many as half of all NHS staff may work in dysfunctional teams which jeopardise patient care and staff well being. The overall aim of this research is therefore to discover how we can best promote and sustain effective multi-professional team working that delivers high quality healthcare and improves health outcomes for patients, users and carers.

We will examine a wide variety of factors that affect the performance of healthcare teams by focusing on multi-professional team working for two priority groups: adults and older adults with mental health problems. We will involve service users, carers and a wide variety of stakeholders in determining what constitutes effectiveness. Combining this approach with rigorous measures developed in previous research we will identify ways of ensuring integration between diverse groups of professionals; effective working between the different teams that contribute to care of patients (hugely important from the perspective of users and carers concerned with continuity of care); systems to ensure that teams naturally and regularly review and improve their performance; and discover how to improve the organisation, management and leadership of services in order to dramatically improve team working and therefore patient care.

Our aim is to develop cost effective methods of promoting effective multi-professional team working that can be applied across the whole of the NHS in order significantly to improve the productivity and effectiveness of our health and social care services.

Research Outline

Details of research proposal

Introduction, aims and objectives

Both the importance and the difficulties of establishing effective MPTW in health and social care are well recognised. A recent ESRC-funded meta-analysis of the relationship between team working and organisational performance in health and non-healthcare settings reaffirms that there is a positive and significant association (Richter et al. 2006). However, reviews also reveal considerable variation in the quality of MPTW and a need to identify the factors that determine these differences in team effectiveness. Although 92% of NHS staff (93% in mental health trusts) report working in teams, only 42% work in well-structured teams: those where the members say they have clear team objectives, interdependent working, and regular meetings to discuss effectiveness (Healthcare Commission, 2006). This means that 50% of all NHS staff work in poorly-structured, or “pseudo” teams, which are associated with high levels of errors, accidents and poor staff well-being (Dawson, 2007). The importance of improving MPTW cannot therefore be overestimated. The proposed research aims to identify the principle factors that ensure multi-professional team working (MPTW) is effective in delivering healthcare and improving health outcomes, and to develop recommendations to improve MPTW in healthcare.

Previous research suggests that the broad input and process factors influencing healthcare team performance are common across settings (El Ansari & Phillips, 2001) and stakeholders (El Ansari, 2003). West et al., in a series of healthcare studies have shown that the team processes predicting effectiveness (particularly establishing clear team objectives

and regularly reviewing performance) are stable across teams in breast cancer care, community mental health, primary care, and acute sector teams (Borrill et al., 2000; West et al., 2003) We therefore propose to focus research resources in one sector (mental health) to advance understanding of the factors that determine the effectiveness of MPTW in this context.

Aims and objectives

1. The overall aims of this research are to identify the principal factors that ensure MPTW is effective in delivering healthcare and improving health outcomes, and to develop interventions with wide applicability in health and social care to improve MPTW and thereby patient care and team effectiveness. The research will be built around an established input-process-output model of team working, and will explore input variables such as task design, team effort and skills, team resources, organisational supports; team processes including clarifying objectives, reflexivity, decision-making, conflict; leadership processes; and outputs such as team member satisfaction, team effectiveness, inter-team effectiveness and innovation.
2. We aim to identify broader contextual facilitators and inhibitors of MPTW, including leadership, culture, support for team working and context-specific factors including resources, structures and processes (clinical, professional, and geographical). This is important because improvements in one part of a local system can sometimes be at the expense of others, creating weakened relationships and instability. By taking local whole systems as our focus (emphasising inter-team rather than just intra-team relationships) we aim to provide practical knowledge to create substantial and sustainable differences throughout health and social care settings.
3. We aim to adapt and develop diagnostic tools for measuring MPTW processes and effectiveness and the critical organisational processes and supports for MPTW, that can then be used across diverse health and social care contexts. Our objectives include developing methods for measuring MPTW effectiveness across diverse contexts with a view to providing practical means of developing robust measures of effectiveness across all health and social care settings.
4. We aim to provide practical knowledge that can be readily adapted to develop MPTW throughout health and social care settings, and thus make a substantial and sustainable difference to the ways in which care is delivered in the UK. This will include identifying the managerial tools and processes that will enable better integration of the work of health and social care professionals.
5. Our final objective is to ensure that the research team models exemplary MPTW in its own functioning.

Relevance to SDO call for proposals

The effective delivery of health and social care services is dependent on developing and supporting a productive and engaged workforce. Team working has been fundamental to human progress for the last 200,000 years but developing teams within the context of large, complex organisations is a recent challenge of the last 200 years (the religious and military excluded). Recreating team working effectively in organisations, and particularly those as complex as NHS organisations, is vital if we are to maximise productivity and effectiveness as well as staff engagement, positive orientations and creativity. Consistent with the SDO

call, we will therefore undertake a wide-ranging and in-depth examination of facilitators and barriers to effective MPTW.

This will require innovative, multi-method and ambitious research that has a strong impact on policy and practice. This we intend to deliver, consistent with our collective past contributions. We share with SDO a passion for discovering how we can enable MPTW – professionals working in an integrated fashion – to ensure effective healthcare and staff well-being. Consequently this proposal is sharply focused on:

- identifying the managerial tools and processes that will enable better integration of the work of health and social care professionals
- adapting and developing MPTW diagnostic tools and measures that can be used throughout health services
- ensuring that we offer clear, cost effective and applicable methods for developing managerial processes and interventions that enable effective MPTW.

This requires a sophisticated appreciation of the effects of the clinical context on effectiveness of MPTW, including contexts where team members are not co-located and/or work for separate providers; and where team members come from different sectors, including the voluntary sector. Consideration of the context of team working has been a hallmark of our past research and is fundamental in this proposal.

Backgrounds, including NHS contexts and relevant literature

Why focus on mental health? There is a longstanding history of inter-agency and inter-professional team working (Onyett et al submitted; Killaspy et al 2006; Priebe et al 2004; Wright et al 2004; Billings et al 2003; Carpenter et al 2003). Recent research shows that one of the key characteristics of organisations providing high-quality mental healthcare was effective multidisciplinary working and training (NHS Institute, 2006). Following publication of a National Service Framework in 1999, NHS mental health services for working-age adults have been obliged to adopt a pattern of provision based upon distinct teams providing for each of several client groups. These are now represented in virtually all mental health trusts, providing a unique opportunity to study determinants of the effectiveness of inter- as well as intra-MPTW.

NHS mental health services have undergone significant change and development in recent years (Appleby, 2006) with particular emphasis upon increased community mental health team activity. Community mental health practices have become more flexible, particularly with respect to extended hours provision imposing a move from individual to team-referent case loads. In line with recent policy imperatives, we will explore team working for two priority groups: adults and older adults with mental health problems experiencing significant levels of disability. These client groups raise challenging issues with respect to the interdependence between disciplines within teams and the wider array of services working to promote personalised care and social inclusion. They also highlight issues that relate to coordinating inputs to physical as well as mental health care. Although the care of working age adults with mental health difficulties tends to focus upon well-being, risk and safety, the care of older adults also has to incorporate a wider range of services, including those providing for their physical care.

Mental health is a particularly good example to pick to overcome the complexities of MPTW for two other main reasons. Due to the contested nature of mental illness, teams include a large variety of professional groups, each with their own histories, values and

culture. Perhaps because of this, mental health is an area of healthcare with a history of attempts to promote more effective multi-professional working.

Research conducted across a number of different sectors would introduce uncontrollable sources of variance due to differences in policy environment, resourcing, skill mix, organisational culture and objectives. These will be factors of concern in the current study of course, but by focussing on one sector we will be able to explore their influence more precisely.

The proposed research programme will examine those inputs and processes in MPTW that theory and research indicate are important. In addition to examining a broad range of such variables, we will take four as a particular focus. We explain each in more detail below.

Diversity: Research in healthcare teams has shown that professional diversity is associated with higher levels of team conflict but also higher levels of innovation when team processes are managed effectively (West, 2004). Conversely, the literature on inter-agency collaboration suggests that the desire to create genuine 'synergy' can be undermined if managers become too concerned with maintaining peaceful partnerships, so stifling constructive controversy that could produce radical innovation in patient/user care (Hastings, 1996; Dickinson et al., 2007, Platt, 2007). Problems of diversity are compounded when team members work for different employers, and when differences coincide with demographic or professional differences between team members (van Knippenberg et al., 2007). Understanding the parts played by relationships between professional groups in determining the success of MPTW is an important feature of the New Ways of Working in mental health programme (www.newwaysofworking.org.uk). The proposed research will both inform and be informed by this programme.

Integration: There is growing evidence that integration between teams in delivering services may be even more important than intra-team processes (e.g., Richter et al., 2006). Key players affecting the integration of different healthcare teams are team "boundary spanners", those individuals most involved in task-related interactions between teams, frequently the team leaders. We will therefore focus upon how to improve inter-team effectiveness in mental healthcare by examining the behaviours and characteristics of those individuals. Effective inter-team working is also crucial from the perspective of users and carers concerned with continuity and effective communication. Onyett et al's (submitted) recent national survey of crisis resolution teams found, for example, that team effectiveness was compromised by capacity problems in other parts of the local service system, and particularly among generic community mental health teams. New PSA targets with respect to blocked discharge argue for local commissioners and providers to address these issues together, but they will need practical guidance on how to develop truly effective inter-team working that creatively solves problems at local level. Research suggests that factors hindering effective inter-team collaboration include structural variables such as intergroup competition (e.g., Mohrman et al., 1995), along with attitudinal variables such as hostile intergroup attitudes (Hogg & Terry, 2000). More recent concepts found to be relevant include team leaders' identification with the overall health care organization, along with frequent task-related contact between teams (Richter et al., 2006). Further, team leaders' negotiation style has been found a useful means to manage intergroup competition for enhanced healthcare team effectiveness within the NHS (Richter, West, Sacramento, & Hirst, 2005).

Reflexivity: Research on MPTW within healthcare and other settings suggests that reflexivity (the extent to which teams meet to review and modify objectives, strategies and processes in service of their overall goal) is a powerful predictor of effectiveness and innovation (West, 2000). However, many teams are so consumed by the task or so resistant to change that they fail to review and revise their approaches, continuing to expend energies in directions that are sub-optimal for patient care. We need to find ways of ensuring that such reflexivity becomes the way all health and social care teams work.

Organisational context: The effectiveness of teams is best understood within their organisational contexts (West & Markiewicz, 2004). This study therefore looks at intra and inter-team working for priority care groups taking localities as the wider unit of analysis. This will allow us to explore factors influencing team working in relation to other key levers, such as commissioning capacity and intention and local partnership behaviours at a macro level (Glasby et al., 2006). The local context is and will continue to be a key factor in shaping attempts to develop MPTW, especially given recent NHS and local government White Papers (DoH, 2006; DCLG, 2006). Among the proposers, Alimo-Metcalfe et al. (2007a) identified a range of contextual factors that affect the performance of multi-professional teams while Glasby (2007) has shown the importance of understanding the individual, organisational and structural aspects of MPTW (and the ways in which these interact). West and colleagues have focused on the effects on MPTW of climate and HRM practices in various studies. But we need a comprehensive and definitive understanding of organisational context which this programme of research offers.

Plan of investigation

Sample: Thirteen localities (Trusts and associated local authorities) will be sampled from across England to represent a range of contexts with respect to urban-rural continuum, performance rating of local providers and social deprivation indices. Within each of the thirteen localities the local service systems for both older and working age adults with mental health problems will be mapped. We will sample 100-120 teams. Annually collected service mapping data will provide a starting point for developing local maps of provision which will be further developed through liaison with the local Care Services Improvement Partnership (CSIP) development centres. CSIP (who also host staff providing development support to older adult services) will be well placed to support the research team in identifying the key local players who can help develop our local intelligence and smooth processes for obtaining local service and ethical approval.

Methods (including the plan of analysis)

There are three research stages described below.

Stage 1:

Aim: To develop methods of measuring MPTW effectiveness in healthcare contexts

Methods: N.B. A detailed protocol for the format of these workshops is attached with the application.

We will use a formative evaluative approach to develop measures of team effectiveness (including, but not limited to, service user and carer outcomes, measures of staff engagement and well being, generic team effectiveness, intra-team and inter-team

effectiveness, innovation) based on the methodology of the Productivity Measurement and Enhancement System (ProMES; Pritchard, 1990). Within ProMES, effectiveness criteria are established in group discussions with team members, managers and all major stakeholder groups. The variables are then "psychologically scaled" to a common effectiveness scale. The system is then used to set objectives, develop indicators, monitor and improve performance and give feedback to the team. This approach enables development of contextually specific measures of effectiveness that have high face validity for team members, service users and carers, and stakeholders. This stage of the work will be conducted in cooperation with stakeholder representatives drawn from each of the thirteen localities and will involve a series of workshops focused on developing effectiveness measures. At least four of these workshops will involve service users/carers, with one being explicitly for this group. Links with the Care Services Improvement Partnership (CSIP) will be established to enable contact with service users, and they will be paid a standard daily rate for participation in the research.

Though we will be developing effectiveness measures for mental health teams in this research, our underlying aim is to produce and proof methods of measurement development related to MPTW effectiveness that can be applied robustly across all or most health and social care contexts. We are confident that, using this methodology based on the ProMES approach, we can go a long way towards achieving this. On completion of this stage, we will produce a guide for those in health and social care contexts on exactly how to develop similar methods of effectiveness in their sectors.

These workshops will take place in three stages (detailed in the attached document): the first will be to establish contextually specific outcome measures; the second will be to investigate how to turn these outcomes into something that is measurable and the third will be how to weight these measures in preparation for the survey.

Stage 2:

Aim: To identify the contextual factors, other inputs and team processes that most powerfully influence MPTW effectiveness

Methods: We will gather data from all 100-120 teams across the 13 localities using the Aston Team Performance Inventory (ATPI; West et al., 2005). The ATPI has been developed as a comprehensive and well validated measure of team inputs, processes and outputs, and a substantial national and international database of healthcare teams has been compiled already. It assesses task design, team effort and skills, organisational (locality) support, resources (inputs); measures of team processes including objectives, reflexivity, participation, task focus, team conflict, creativity and innovation processes, measures of inter-team processes (Richter et al., 2006); and outputs including team member satisfaction, team effectiveness and innovation. We will also apply the measures of effectiveness developed in Stage 1. We will collect data on demographic and professional details of team members, which will allow us to examine inter-professional attitudes in the context of the theoretical work of van Knippenberg and colleagues (e.g., Homan et al., in press) that shows that professional diversity predicts team effectiveness and innovation when team members hold positive attitudes towards such diversity.

Analysis will examine links between inputs, processes and team effectiveness (using measures developed in Stage 1, routinely collected outcome data and, if available, data from the Healthcare Commission patient survey programme). This will include team level

regression and path analysis to examine the links comprising the underlying input-process-output model, and multilevel structural equation modelling using Mplus (Muthén & Muthén, 1998) will enable us to determine to what extent team factors and individual factors separately determine the level of team effectiveness. The effects of intra-team cohesion and integration will be examined using measures of faultlines (van Knippenberg et al., 2007)

Stage 3

Aim: To identify the fine grained team processes, and contextual, professional and institutional incentives and barriers to effective MPTW

Methods: **N.B. This part of the study will be subject to another major amendment and details of this will not be included in this application. This is because it is an iterative process and this stage will be informed by the proceeding two stages.**

A qualitative, in-depth study of 20 of the teams from Stage 2 (chosen to include both high-performing and low-performing teams) will identify management and leadership processes associated with effective multi-professional team working. The research will include observation of team meetings, interviews with three to six key team members from a range of professional groups, and interviews with three service users and carers (at least one of each) of each team. In addition, we will examine the resources of teams and their capacity to respond to the demands placed on them and the different expectations of commissioners and clinicians and how they are resolved. We will also identify aspects of the organisational and care context that impact on MPTW, including resources and support offered by the Trust and local authority (such as HR systems and training), adequate mixture of professional groups, team processes (including meetings), and different leadership styles. Interview content will be based on and further develop the interview structure and content for evaluating team-based working described in West and Markiewicz (2004).

This stage will also use techniques that are applicable as service improvement tools such as process mapping to explore user pathways through the local systems of care and demand and capacity analysis.

Benefits of research to the NHS

This research will identify the most important factors determining the effectiveness of MPTW, enabling practitioners and policy makers to focus their efforts (e.g., setting clear team objectives, leadership) in these areas, leading to significant improvements in patient care. Moreover, the research will provide diagnostic tools that assess quality of MPTW on a wide range of indicators; these tools can then be used to identify areas of strong and weak practice, enabling the NHS to reinforce what is working and intervene where MPTW is ineffective. The programme will develop methods for measuring MPTW outcomes that can be used across health and social care. The research will also identify managerial and organisational structures and processes that act as barriers to or inhibitors of MPTW, again offering the intelligence needed for effective development of services. All this information will be used to identify and develop interventions to promote effective MPTW. Our aim is to provide the knowledge, technologies and policies that will significantly reduce the percentage of NHS staff working in potentially dangerous poorly structured or “pseudo” teams and increase the percentage working in effective teams in the years during and subsequent to our research. Our success will be judged ultimately on that.

Proposals for involvement of collaborators

The project will be based at Aston Business School, but involves co-applicants from seven other institutions. There will be several methods for ensuring the input of these collaborators.

Four times a year we will hold co-investigator meetings and workshops, which will bring together all members of the project team for in-depth project planning and review. Some of these events may be held by teleconference. Additionally, there will be monthly reports from Aston to all co-investigators, mapping current progress against objectives, forthcoming objectives and raising any issues for discussion - these will enable a formal mechanism for co-applicants to stay in touch and provide feedback; however, it is anticipated that far more regular, informal contact will occur throughout the project, and all applicants will be heavily involved in the key phases of study design, interpretation of results, writing of the report and wider dissemination.

Proposals for involvement of stakeholders

Our research process involves users and their carers from the evaluation of valued outcomes of MPTW (via ProMES) through to local development initiatives. This will provide invaluable local learning on effective engagement that can be generalised to similar development processes elsewhere. We will produce generalisable learning on assessing user need, engaging users in describing a preferred future, recording their experience within and across teams and how this links with their wider aspirations. A similar and parallel approach will be taken with carers. Participants in these processes will be invited with the support and intelligence of local CSIP development centres and their relationships with Local Implementation Teams, Acute Care Forums and through commissioning structures.

An Advisory Group will include representatives from service user, health and social care policy, management and research backgrounds. Membership will also include identified representatives of those who manage, work in and use the Trusts involved in the study, as well as an invited nominee of SDO. Application will be made for adoption by the UK Mental Health Research Network. We will also invite representatives from related SDO projects to ensure good inter-team communication (such as Peter Huxley at Swansea).

A separate service user/carer reference group will also be established, involving nominated representatives from each of the thirteen localities; this group will meet annually.

An independent Advisory Group will be established, whose function will be to scrutinise the study and comment on the interpretation of findings. Membership will include representatives from voluntary organisations and charities (e.g. MIND, Mental Health Foundation) and professional bodies. Further, each participating Trust will be asked to nominate a member of staff to coordinate project activity who will be members of a national learning set.

To ensure the project is grounded in external policy and resource contexts, we will undertake an appraisal of the commissioning arrangements, policy developments, financial climate and partner organisations in each locality. This will involve SHAs, PCT commissioners, CSIP, and related NHS organisations. We will also work closely with NHS Employers and the Healthcare Commission (with whom we already have excellent collaboration) to ensure we have a strategic perspective on the work. Further involvement of stakeholders will take place during dissemination of the results as detailed below.

Plan for dissemination of results

The team has a strong record of effective dissemination of results of NHS research and will build on this experience to ensure knowledge from the research is widely and appropriately communicated. We will begin the dissemination process from the outset of the project and ensure that each of the intended audiences is targeted each year of the project as well as beyond the project's life. Key audiences are:

Users and carers

- Service providers
- Related staff
- Managers,
- Board level leaders
- Link organisations (CSIP, SHAs, NHS Employers, Healthcare Commission)
- SDO research community
- Policy makers
- International audience (e.g., policy makers and researchers in USA, Canada, Australia and rest of Europe with whom members of the team have links)

Media we intend to exploit include:

- Team feedback reports for the teams involved in the research
- Summaries of findings for all stakeholders and reports of workshops to participants
- A minimum of 4 presentations at conferences annually such as NHS Employers and MIND
- Information on managerial and organisational barriers and facilitators in summary form for distribution to UK audiences listed above
- A practical guide to developing measures of effectiveness. This will be based on ProMES and will offer a way forward for all health and social care teams to develop powerful and acceptable measures of effectiveness and productivity.
- Diagnostic tools (made available and/or publicised) for all health and social care teams, managers, and link organisations produced in the final year of the project
- Print media – academic journals, professional journals such as Health Service Journal. We will exploit these traditional media to ensure effective dissemination to the scientific and practitioner communities, consistent with our past records of achieving high levels of exposure for our research.
- Wherever possible, all materials will be made available on the Web.

The focus will be on staff and user perspectives in terms of relevance of the findings and their utility for management and will include practitioner/service published media outputs and policy dissemination seminars. Participating health communities and local authorities will be given feedback sessions and will be involved in the interpretation of results at local level, and the development of the resulting development plans. CSIP is particularly well placed to ensure effective measures for local team work improvement are embedded within service level agreements between commissioners and providers in health and social care. Each report will be reviewed by one or two service users/carers, who will be paid £200 for the main project report, or £50 for a shorter one.

Justification of costs

The project will be overseen throughout its 3.5 year life by Professor Michael West, with assistance from Jeremy Dawson (RCUK Fellow). An average of one day a week has been allowed for this management over the course of the project, split equally between them.

A senior full time researcher will run the project on a day-to-day basis for the full duration of this project. His/her role will include co-ordination of the different stages of the project, and facilitate communication with project team members outside Aston. This will include monthly reports on progress and quarterly meetings (two of which per year may be by teleconference). These project management methodologies have been used successfully at Aston before to support multi-centre research. This role will be supported by another researcher covering Stages 1-3, which involve multiple visits to organisations. Clerical support throughout the project will ensure that consistent contact is maintained with stakeholders and collaborators, as well as providing communication with the research sites. This will be a part-time (20%) post, apart from during Stages 2 and 3 where additional hours will be required to ensure the smooth delivery of this project.

Moreover, the two co-applicants based at Aston work in a research team of eight with considerable experience of working on large-scale projects in NHS settings. The team members work flexibly between projects when necessary. This wider resource will be called upon as and when necessary to support the core research team working on this project. This flexible and supportive inter-team working is a model of good practice that has proved very successful over many years of NHS research and will be an added benefit for this research programme should our application be successful.

We expect to use £20,400 in order to carry out the site visits for Stages 2 and 3, and a further £8000 for consultation with stakeholders in Stage 1 and dissemination towards the end of the project. £12,000 is budgeted for the ten stakeholder workshops that will be used to develop effectiveness measures in Stage 1 of the project. A further £18,000 is budgeted for six collaborator workshops and meetings, which will bring together all members of the project team four times a year for in-depth project planning and review.

Service users and carers will be paid for their participation according to guidelines provided by Involve and the Department of Health (A guide to reimbursing and paying members of the public who are actively involved in research, DH 2006). For the 112 days specified above, plus £650 for reviews on dissemination, this totals £18,950. In addition, travel, subsistence and other costs are based on an average of £100 per day which allows for differing travel expenses and overnight stays where necessary for meetings in Birmingham - a total of £7,400 is allowed for this. Payscales have been drawn up by Suresearch, an organisation of service users and carers involved in research.

£2,000 per year has been allowed for consumables over the course of the project, with a further £2,000 allowed to provide a laptop computer and appropriate accessories/software for the senior researcher. £10,000 has been allowed for questionnaire design and distribution.

The estates and indirect charges have been calculated using FEC based on the TRAC methodology, in compliance with HEFCE guidelines.

Project timetable

Below is a revised Gantt chart based on the new project time scale. Prior to June 2010, the Gantt chart submitted on the 28th April 2010 remains unchanged and therefore the revised version provides details from June 2010 onwards. As is clear below, we will be seeking both ethics and R&D approval during the running of Stages 1 and 2 to ensure that we have these

approvals in place at the time that Stage 2 is due to be completed. Having discussed the Stage 3 applications with the CLRN Assistant RM&G Project Manager, West Midlands (South) Comprehensive Local Research Network, we understand that the R&D application can be submitted whilst ethical approval is pending. Therefore, we intend submitting the ethics application by 15th June and the R&D application by 30th June 2010. We hope that this will minimise delays while each application is processed and will enable us to proceed with the local site-specific information forms for the four Trusts we intend to work with in Stage 3 as soon as possible for a start in February 2011.

	2010							2011								
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
Stage 1 (workshops)	X	X															
Stage 2a (Recruiting participating teams & incorporating Stage 1 outcomes into Stage 2 questionnaire)	X	X	X	X	X												
Stage 2b (Distribution & collection of completed questionnaires)					X	X	X										
Stage 2c (Data analysis & identification of Stage 3 teams)						X	X	X	X								
Ethics approval for Stage 3 (submission of application by 15th June 2010)	X	X	X	X	X												
R&D approval for Stage 3 (submission of application by 30th June 2010)	X	X	X	X	X	X	X	X									
Stage 3 Ethnographic study of 20 Stage 1 teams									X	X	X	X	X	X			
Dissemination & final report													X	X	X	X	X

Interim reports

Annual interim and monthly reports will be submitted to SDO. A final report will be submitted following the completion of the project.

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Disclaimer

Addendum

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