DEVELOPING TEAM-BASED WORKING IN NHS TRUSTS

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PROJECT SUMMARY

The purpose of the project was to examine *how* we can create the conditions in NHS organisations that ensure the effectiveness of work teams in providing the best quality care for patients and improving the working lives of NHS staff. The project examines possible barriers to, and facilitators of, effective team-based working in NHS organisations, and aims to provide practical guidelines for NHS organisations on how to implement effective team-based working.

Why focus on team-based work? Over the previous twenty years the importance of team working in health care has been emphasised in numerous NHS reports and policy documents, and most recently *High Quality Care for All – NHS Next Stage Review* described team-based working as an imperative from the inception of the NHS. Teams are increasingly the unit of performance in many organisations (Lawler, Mohrman & Ledford, 1992) and as organisations grow in size and become more complex, groups of people are required to work together in co-ordinated ways to achieve objectives that contribute to the overall effectiveness of their organisation. Team-based working provides the flexibility needed to respond effectively to the constantly changing demands in the organisation's environment, and provides a mechanism for bringing together the range of expertise, skills and knowledge required to complete complex work tasks.

There is an increasing body of research in organisations that have shown links between team-based working and organisational effectiveness (see Chapter One for a detailed review). In the research presented here, we focus on how to build organisations that are structured around teams, thus enabling effective team working. This is because, in contrast with the wealth of advice on teambuilding and team working, there is little guidance or advice to managers on how to build team-based organisations. However, emerging evidence suggests that it is the organisational context rather than team processes that determines the effectiveness of team-based

working within and across organisations (West, Tjosvold, & Smith, 2003; West & Markiewicz, 2003).

Given the body of evidence about the benefits of effective team working in health care, we need to discover what factors promote effective team-based working in NHS organisations. The overall challenge and the aim of this research was to answer the question *how can we build NHS organisations that ensure the effectiveness of work teams in providing the best quality patient care?* We also had a number of research objectives:

1. To determine whether, and which aspects of, team-based working predicts Trust performance, patient satisfaction and staff well-being.
2. To determine whether an increase in the level of team-based working predicts Trust performance, patient satisfaction and staff well-being.
3. To determine whether leadership, culture and HR support systems influence levels of team-based working in the NHS.
4. To determine whether team-based working interacts with HR support, culture and leadership to predict Trust performance, patient satisfaction and staff well-being.
5. To evaluate the effects of interventions in NHS Trusts that seek to promote team-based working upon patient care and delivery of services to patients.
6. To identify the barriers to, and facilitators of, implementing team-based working in NHS Trusts.
7. To determine which aspects of interventions to develop team-based working most influence the success of the interventions.
8. To determine what strategies the most well developed team-based organisations pursued in order to effectively implement team-based working.
9. To develop practical guidelines for NHS Trusts for how to implement team-based working successfully.

MAIN FINDINGS

To answer the central research question, and research objectives one to five, we used quantitative data collected from the National NHS Staff Survey to examine whether well-structured 'real' team-based working in NHS Trusts was associated with employee well-being, patient satisfaction and measures of Trust performance. This was supplemented by data collected from interviews with senior managers and focus groups with staff in fourteen NHS trusts which displayed 'high', 'increasing' and 'low' levels of 'well-structured' team-based working.

To answer objectives six to eight we collected data from interviews with senior managers and focus groups with staff in eight NHS trusts that have recently introduced interventions designed to promote team-based working with the aim of examining the barriers to, and facilitators of, team-based working, and also the impact on staff members and the delivery of patient care.

Quantitative analysis of the National NHS Staff Survey data was used to address research objectives one and two. Research objective one was *to determine whether, and which aspects of, team-based working predicts Trust performance, patient satisfaction and staff well-being* and research objective two was *to determine whether an increase in the level of team-based working predicts Trust performance, patient satisfaction and staff well-being*. Our analysis showed a strong association between staff members who reported working in 'real teams' and more positive outcomes, where staff members who worked in a 'real team' were:

- Less likely to have suffered work related injuries or stress
- Less likely to have witnessed errors and incidents
- Less likely to have experienced physical violence, harassment, bullying or abuse from patients or work colleagues
- More likely to report they were satisfied with their job

Our analysis would also indicate that there are different types of 'pseudo teams'; respondents working in a 'pseudo team' where:

- team members work closely with each other, but where the team does not have clear team objectives or meet regularly, was associated with higher levels work-related injuries and stress, errors and near misses, and violence and harassment
- team members do not meet regularly (but do work closely together and with clear objectives) was associated with higher levels of work-related injuries and violence and harassment from patients

This analysis of the National NHS Staff Survey data was supplemented by interviews and focus groups conducted with staff and managers, which identified the following points:

- Marked differences across NHS Trusts regarding the extent to which team members were clear about their own roles and responsibilities and those of other team members.
- Lack of clarity over roles and responsibilities often manifested itself in poor communication and lack of citizenship between team members, which could ultimately have an impact on the delivery of healthcare to patients.
- Team-based working was embedded across all NHS Trusts by virtue of the tasks completed, and working interpedently in multi- and uni-disciplinary teams was essential to ensure the delivery of healthcare to patients.
- Finally, we found universal problems of practical difficulties and resourcing issues preventing team members from meeting together in one place at the same time, and as a result teams not having sufficient opportunities to reflect on past performance.

Quantitative analysis of the National NHS Staff Survey data also indicated that there were significant implications for NHS Trusts at a corporate level of having high number of staff working in 'pseudo teams'. NHS Trusts which had a higher proportion of staff working in well structured 'real' teams (and thus a lower proportion of staff in poorly structured teams) reported significantly better Trust level outcomes. The data also showed that NHS Trusts which displayed an *increase* year-on-year of staff working in

well structured 'real' teams also performed better on Trust level outcomes. Specifically, these trusts were rated as being more effective on measures of financial management, and at meeting the Department of Health's core standards, existing national standards and new national targets.

Research objective three was *to determine whether leadership, culture and HR support systems influence levels of team-based working in the NHS*. Quantitative analysis of the National NHS Staff Survey data identified that, across NHS Trusts, respondents were more likely to work in well structured teams where the prevailing organisational climate of the trust was positive and supportive, managers were supportive of staff and jobs were well designed.

Research objective four was *to determine whether team-based working interacts with HR support, culture and leadership to predict Trust performance, patient satisfaction and staff well-being*. Quantitative analysis of the National NHS Staff Survey data identified that, across NHS Trusts a combination of:

- managerial support for work-life balance and good team-based working was associated with shorter patient waiting times
- jobs which were well designed and good team-based working was associated with shorter patient waiting times
- a positive and supportive organisational climate and good team-based working was associated with lower patient mortality and shorter patient waiting times

Research objective five was *to evaluate the effects of inventions in NHS organisations that seek to promote team-based working upon patient care and delivery of services to patients*. Qualitative data collected with interviews and focus groups with staff and managers in NHS Trusts which had implemented interventions aimed at prompting team-based working identified:

- Patient outcomes, such as waiting times and length of stay, are improved as a result of team-based working and patients experience a more uniform and coordinated care pathway

- Team-based working interventions encourage all members of a team to participate in setting the team's goals and objectives
- Better understanding and communication within the team and with other teams as a result of team-based working improves morale and service delivery
- Team-based working interventions helped identify team members roles and responsibilities, how they each contribute to the team's objectives
- Staff are empowered through the team-based working approach and feel valued and trusted

Qualitative data collected with interviews and focus groups with staff and managers was also used to address research objectives six and seven. Research objective six was *to identify the barriers to, and facilitators of, implementing team-based working in NHS organisation* and research objective seven was *to determine which aspects of interventions to develop team-based working most influence the success of the interventions*. Our analysis identified three main categories: i) managerial, ii) organisational, and iii) individual level barriers and facilitators to implementing team-based working interventions

- Top level management support and good leadership is important for the success of team-based working implementation
- Releasing staff to attend team-based working events is difficult if clinical cover needs to be maintained. If this is not supported by management, team-based working is perceived as unimportant
- Trusts meeting the financial costs of team-based working interventions emphasises management commitment to the process
- Having key staff as champions of team-based working encourages and motivates staff, thereby facilitating effective team-based working
- A key facilitator to successful team-based working implementation is the effective communication of its benefits to patient care and to staff.

1 TEAM-BASED WORKING: DEFINING THE ISSUES

In this chapter, we outline what team-based working is and why it is important in the context of the NHS. Through looking at the conditions needed to facilitate team-based working and drawing on current research, we demonstrate how the theoretical model underpinning this report was derived. We then show how it can be used to explain the relationship between team-based working and organisational and staff outcomes. Finally, we outline the research objectives and the approach taken in this project and detail how the remaining chapters relate to these research objectives.

1.1 What is team-based working?

In this section, we define what is meant by team-based working and how it is defined in the research literature.

Team-based designs are becoming 'the norm' in many of today's organisations (Kozlowski & Bell, 2003). As this chapter will discuss, team-based organisations can learn better, change more easily and execute tasks more efficiently (Mohrman, Cohen, & Mohrman, 1995). They can also retain learning more effectively (Senge, 1990). Due to the need for consistency between organisational environment, strategy and structure, teams have been described as the best way to enact an organisation's strategy (Galbraith and colleagues, 1993). Furthermore, they promote innovation and improved quality management due to the cross-fertilisation of ideas, as well as developing and delivering products and services in a cost-effective and timely manner (West & Markiewicz, 2004). Cycle time, speed and time-to-market can all be compressed if activities, which were previously performed in an individual sequential manner, are instead performed concurrently (Mohrman *et al.,* 1995). Indeed, Galbraith (1994) argues that the complexity of demands and performance pressures placed upon today's organisations are gradually exceeding the capability of traditional, functional organisations. In order to integrate and coordinate such demands, more effective and efficient processing of information is needed. Lawrence and Lorsch (1969) argued that organisations must subdivide into different subsections that will meet all the relevant

components of their environment, and that team-based working is the way to achieve such integration.

1.1.1. But what exactly is team-based working?

West and Markiewicz (2004) describe team-based working as an approach to organisational design whereby decisions are made by teams of people rather than individuals, and at the closest possible point to the customer or client. The core building blocks of team-based organisations are teams; teams lead one another and form the basic units of accountability and work (Harris & Beyerlien, 2003).

In team-based organisations the emphasis is not on vertical power relationships, but on achieving a shared purpose and understanding and the integration across teams (West & Markiewicz, 2004). In effect, the hierarchy that dictates power is flattened, and autonomy is distributed across the organisation via horizontal integration. Furthermore, while traditional organisations emphasise stability and continuity through the reinforcement of rules, regulations and bureaucracy, team-based organisations welcome change, flexibility, responsiveness and innovation, allowing them to adapt quickly and competitively to their external environment. A culture that supports creativity and innovation is crucial, encouraging teams to express and implement unique approaches and ideas. Such an environment helps to cultivate new ways of working and novel solutions that best meet the needs of the ever changing market place.

In terms of control and management, traditional organisations assign this to those in supervisory and management positions. Conversely, in team-based organisations, teams themselves take responsibility for setting and meeting their objectives, as well as monitoring and reviewing their processes and strategies. Therefore, team-based organisations reflect the belief that organisational goals will be largely achieved by teams of individuals working cooperatively together, rather than individuals working in isolation. They promote the development of shared objectives by involving all employees, encouraging the exchange of their ideas through constructive debate and providing them with a say over decisions (West & Markiewicz, 2004).

1 TEAM-BASED WORKING: DEFINING THE ISSUES

The current enthusiasm about team-based working in the literature signifies the recognition that effective team work offers the potential for simultaneously increasing both productivity and employee satisfaction (Campion, Medsker, & Higgs, 1993). There is a common belief that through combining the efforts of individuals within a team, the aggregates of individual's contributions will be surpassed (West, Borrill, & Unsworth, 1998). Guzzo and Salas (1995) attribute an increase in team-based working to intended improvements in organisational productivity, customer service and an eventual beneficial impact on the bottom line. Of course, it should be noted that team-based organising is not appropriate for every task or every function within an organisation. However, one sector where team-based working has demonstrated particularly important benefits is healthcare.

Due to both the non-profit and public nature of the majority of healthcare organisations, team-based working in the healthcare domain requires special consideration. The context in which healthcare teams operate is characterised by particularly high levels of stress, complexity and workload, and the stakes for decision and action errors are high (Salas, Rosen, & King, 2007). Worrying evidence has shown that in British healthcare organisations there has been a 24% increase in the number of reported errors and incidents between 2002 and 2005 (National Audit Office, 2005). A study by Bates, Boyle, Vander Vliet, Schneider, and Leape (1995) also found an average of 1.4 medication errors per patient during a hospital stay, with 0.9% of these errors leading to serious drug complications. However, previous research suggests that effective teamwork is associated with reduced medical errors and improved patient safety (e.g. Helmreich & Schafer, 1994; Heinemann & Zeiss, 2002). Team-based working is also associated with improved efficiency and reduced costs (West & Markiewicz, 2004); an outcome which would particularly benefit healthcare organisations battling with high demands and limited resources.

Despite this evidence, not all healthcare organisations support team-based working, and not all healthcare teams are effective. These issues require urgent attention. Failure of healthcare professionals to work in effective teams can at the very least provide unsatisfying working conditions for staff and at worst severely jeopardise

patient safety. For example, West *et al.* (2002) found that the greater percentage of staff working in teams that patient mortality was lower.

1.1.2 Team-Based Working defined

Scientific interest in and the study of teams date back to the 1950's, and various attempts have since been made to define teamwork (e.g. Alderfer, 1997; Hackman 1987; Katzenbach & Smith, 1993; Guzzo, 1996). Although many of these share attributes, they also include subtle differences, and there remains no generally shared definition (Delarue, Van Hootegem, Procter, & Burridge, 2008). In a review of 55 peer-reviewed papers, Rasmussen and Jeppesen (2006) agree that there is no universally accepted definition of a 'team' in the literature. This is not surprising given the complexity of teams – teams are complex, adaptive and dynamic systems (McGrath, 2000). Reasons for such difficulty in agreeing upon a single definition are noted by Kozlowski and Bell (2003); teams can come in a variety of different sizes and types, and across different functions, contexts, internal processes and external links. However, by combining a number of different elements of definitions of teams in the literature (Alderfer, 1977; Hackman, 1987; Hollenbeck, Ilgen, Sego, Hedlund, Major, & Phillips, 1995; Kozlowski, Gully, McHugh, Salas, & Cannon-Bowers, 1996; Kozlowksi, Gully, Nason, & Smith, 1999; Salas, Dickinson, Converse, & Tannenbaum, 1992) Kozlowski and Bell (2003, p.334) provide the following frequently cited definition of a team:

> Work teams and groups are composed of two or more individuals who exist to perform organisationally relevant tasks, share one or more common goals, interact socially, exhibit task interdependencies, maintain and manage boundaries, and are embedded in an organisational context that sets boundaries, constrains the team, and influences exchanges with other units in the broader entity.

This definition is particularly relevant for this literature review as it refers specifically to teams that are in organisations, rather than alternative types of teams such as sports teams, social groups or other collectives that operate in a given context (Mathieu, Maynard, Rapp, & Gilson, 2008). Kozlowski and Bell (2003) also view teams from an organisational systems perspective. Organisations are social systems that serve as environments for teams (Katz & Kahn, 1978). Thus, to thoroughly understand teams,

the complexities of the context in which they are embedded cannot be ignored (Ilgen, 1999). Another highly relevant definition for teams in organisations is provided by West (2004, p.18) who defines teams as:

> Groups of people embedded in organisations, performing tasks that contribute to achieving the organisation's goals. They share overall work objectives. They have the necessary authority, autonomy, and resources to achieve these objectives. Their work significantly affects others within the organisation. Team members are dependent on each other in the performance of their work to a significant extent; and they are recognised as a group by themselves and by others. They have to work closely, interdependently, and supportively to achieve the team's goals. They have well-defined and unique roles. They are rarely more than 10 members in total and they are recognised by others in the organisation as a team.

As can be seen, Kozlwoski and Bell's (2003) and West's (2004) definitions of a team share a number of attributes in common. These include the presence of shared objectives and common goals, as well as task interdependence. However, they are somewhat distinguishable in terms of their focus; West's (2004) definition focuses more on group level features such as the autonomy, identity, teams' roles and cooperation, whereas Kozlowski and Bell's (2003) definition, takes an organisational level perspective, looking at how the team interacts with, and is influenced by, the wider environment. This subtle difference in focus allows the definitions to complement one another, providing a well-rounded conceptualisation of work teams in organisations. Therefore, both definitions will be used to provide a conceptual underpinning for the research described here.

1.1.3 'Real' versus 'pseudo' teams

Despite the various definitions in the literature, in reality we may have different entities in mind when they talk about teams (Hackman, 2002). Often people report that they are part of a team when they are merely working in close proximity to other people and have the same supervisor. Hackman (2002) argues that, in such cases these are not real teams, as their task does not require them to work together collectively, nor are all members accountable for the task's completion.

Real teams are more than simply a collection of individuals co-acting with one another (Paris, Salas, & Cannon-Bowers, 2000; Hackman 2002). Following the definition above (West, 2004) we propose that a team is a 'real' team when team members work closely and interdependently towards clear, shared objectives. Real teams also have regular and effective communication, usually in the form of team meetings, in which they reflect upon their performance and effectiveness and how it could be. Hackman (1993) proposed that in organisations, where the potential for error is inevitable, effective teams can act as 'self-correcting performance units', whereby team members anticipate and respond to each other's actions, and coordinate tasks as a seamless and collaborative whole. In contrast, a pseudo-team is a team without adequate goal orientation in which team members do not communicate effectively together, or work collectively to achieve common goals.

Due to their potentially dysfunctional inputs and processes, such as an insufficient goal orientation, pseudo-teams may pose a threat to the safety and psychological well-being of team members. Consequences of such work teams may include frustration, decreased job satisfaction, higher work pressure and/or increased turnover. Under such circumstances, people are more likely to be vulnerable to work stressors, errors, accidents and aggression at work, which can have damaging consequences in the healthcare domain. The unfortunate reality is that poor teams can put patients' lives at risk (Mayor, 2002) and it seems that pseudo team working, in which team-based working has not been implemented with thorough integration, is a characteristic of many of today's healthcare organisations.

1.2 The Rationale for Team-Based Working

In this section, we explore the theoretical rationale for team-based working set out in the research literature.

The study of team effectiveness has commonly followed the input-process-output (IPO) model (see figure 1.1 for an IPO model specifically related to the healthcare domain), a framework advanced by McGrath (1964) over forty years ago. Many researchers have adopted this model (Barrick, Stewart, Neubert, & Mount, 1998; Cohen & Bailey, 1997; Hackman & Morris, 1975) with the general premise being that

inputs affect outputs via the interaction that takes place among team members. Thus team processes mediate input-output relationships (Hackman, 1986).

Figure 1.1: Input, process, output model of team effectiveness

1.2.1. Team Inputs

Inputs refer to antecedent factors (individual, team and organisational) that enable and constrain members' interactions. Examples of inputs include individual personalities, backgrounds and competencies, which together form the team's composition. Organisational level inputs include the cultural context, environmental complexity and organisational design features which will all serve to affect the team's interactions with their external environment (Mathieu *et al.,* 2008; West *et al.,* 1998).

One crucial team level input which should be emphasised is the team task, as it has often been suggested that task characteristics govern the extent to which a team can perform effectively (Steiner, 1972). Following Guzzo's (1996) definition of a team, teams are defined by the task they do. Interdependence is a defining characteristic of teams (Kozlowski & Bell, 2003; Salas *et al.,* 1992) and tends to be the main reason why teams are formed in the first place (Mintzberg, 1979); teams are necessary when the specific task to be performed cannot be achieved by individuals working in isolation. Therefore, the team task must be designed so that it requires a collective effort from all members of the team. The focus on the characteristics of the team task is also what ultimately distinguishes the more recent research on teams from the organisational perspective from social psychological research. From a social

psychological perspective, the task itself is not important – it is simply a means of facilitating social interaction. However, from an organisational perspective, the task is critical, as it is the source of role, collective goals, task-related exchanges and determines the coordination and workflow structure of the team (Kozlowski & Ilgen, 2006).

1.2.2 Team Processes

These various antecedents combine to drive team processes, which are activities that team members engage in while trying to combine their resources to meet task demands (Kozlowski & Ilgen, 2006). Team processes include communication, leadership, decision making, conflict, co-ordination, cohesiveness, group affective processes and unconscious processes (West *et al.,* 1998). However, two crucial team processes that distinguish 'real teams' from 'pseudo teams' and have been shown to be particularly important for team effectiveness should be paid more attention.

Firstly, the clarity of team objectives: It is vital that the team task is defined, communicated and enacted via a number of clear, shared objectives. Indeed, team level goals, which include a clearly defined purpose or mission statement, are thought to be critical to team effectiveness (Galdstein, 1984; Guzzo & Shea, 1992; Hackman, 1987; Hackman & Walton, 1986; Sundstrom, De Meuse, & Futrell, 1990). A clear mission statement, consisting of a number of specific shared objectives ensures that all team members share the same vision for their team and clearly understand the objectives by which it can be accomplished (Rousseau, Aube, & Savoie, 2006). This is particularly important when team members are not familiar with one another (Prince & Salas, 1993); a situation common in healthcare when individuals work in a number of frequently-changing multidisciplinary teams. Further, goal-setting theory states that specific, challenging and accepted goals can regulate human action and have the leverage to motivate, direct and energise behaviour (Locke & Latham, 1990, 2002). Clear team level objectives give team members the incentive to combine their efforts and collaborate closely in their work together (Weldon & Weingart, 1993). Not only should team objectives be shared and clear, they should also be agreed upon by all team members. Indeed, clear objectives will only improve team performance if team

members agree upon them and are committed to achieving them (Hollenbeck & Klein, 1987).

A second key team process which is an overarching factor which can best predict team effectiveness is team reflexivity (West, 1996). Team reflexivity is the degree to which members of a team collectively reflect upon their immediate and long-term objectives, processes and strategies and adapt them accordingly (West, 1996). Teams that take time out to reflect on their objectives, strategies and processes are more effective than those that do not (West, 2004). To initiate reflexivity, teams must meet together on a regular basis, during which they can exchange task-related information. Research has shown that reflexivity is a significant predictor of the creativity in teams (Carter & West, 1998). By reflecting on strategies, task objectives and processes, reflexive groups can plan ahead, actively structure situations, have a better knowledge of their work and can anticipate errors. Research into newly formed nursing teams by Edmondson (1996) shows that learning from mistakes and devising innovations to avoid such mistakes in the future can only happen in teams that acknowledge and discuss their errors and how they could have been avoided. Reflexivity is, therefore, a vital team processes for reducing errors and improving performance in future.

1.2.3 Team Outputs

Finally, outputs are the valued results or by-products of a team (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). Traditionally measured outputs were generally concerned with aspects of team performance (e.g. output quantity of a manufacturing team or the number of errors reported by a healthcare team). However, Hackman (1987) argued that such measures are often insufficient and inappropriate for addressing other relevant outcome dimensions which may reflect the social and interpersonal components of teamwork. Therefore, team members' affective reactions (e.g. viability, satisfaction, commitment) tend also to be considered.

By combining these different types of outputs mentioned above (aspects of team performance and team member affective reactions), Wageman, Hackman, and Lehman (2005, p.376) built on Hackman's (1987) original conceptualisation and proposed

criteria for effective team-based working. They define team effectiveness using a three-dimensional conceptualisation:

1. The productive output of a team (that is, its product, service or decision) meets or exceeds that quality, quantity and timeliness of the people who review, receive and/or use the output
2. The social processes used by the team to carry out the task and how they enhanced the team members' capabilities to work together interdependently in future
3. The positive contribution of the group experience to the learning, growth and well-being of individual team members.

Overall, the IPO model is a heuristic, classic systems framework, which has been helpful in organising and integrating theoretical and empirical research into team working (Hackman, 1986). However, it was initially designed for the purpose of organising small group literature, and was not intended to be a theory or causal model of team effectiveness (Kozlowski & Ilgen, 2006). Indeed, many researchers have recently argued that the IPO model may be no longer sufficient for characterising teams (Moreland, 1996), as it fails to capture the emerging consensus that teams are complex, dynamic, and systems that are inherently multilevel in nature (Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Klien & Kozlwoski, 2000; Kozlowski & Ilgen, 2006). Therefore, despite serving as a valuable template for researchers over the years, the IPO model has been extended and modified in various ways (see Cohen & Bailey, 1997; Hackman & Morris, 1975; Ilgen *et al.,* 2005; McGrath, Arrow, & Berdahl, 2001; Salas *et al.,* 1992). These modifications are primarily concerned with temporal dynamics and the context in which teams are embedded, the later of which is an important consideration for the purposes of the project at hand.

1.3 Teams in their context

Firstly, researchers have sought to place the IPO model in a larger context, recognising the growing consensus that teams cannot be understood independent of their context. In organisational research, system or level frameworks are ubiquitous and cannot be ignored. The idea that individuals are nested in teams, which are in turn nested in

organisations, provides the hallmark of multilevel models (Klein & Kozlwoski, 2000). The system contexts and the linkages between multiple levels (individual, team, and organisation) are key sources of contingencies and demands which require the team to align their processes. As a result, not only to external factors related to the organisational context impact upon the team, imposing boundaries and constraints (Kozlowski & Bell, 2003).

Marks, De Church, Mathieu, Frederick, and Alonso (2005) proposed a multi-teams systems (MTS) framework, described as 'two or more teams that interface directly and interdependently in response to environmental contingencies toward the accomplishment of collective goals' (Mathieu, Marks, & Zaccaro, 2001 p.290). Joint interactions between teams in the same system yield overall MTS performance, which is thought to be greater than the sum of individual team efforts (Marks *et al.,* 2005). This organisational level perspective is a relatively novel, yet crucial lens through which one can investigate team working and its effects on team-based organisations.

To summarise, although the IPO model is a simplification of a complex reality, it provides a useful framework for researchers and practitioners and remains the predominant model for conceptualising team performance (Guzzo & Shea, 1992). It will provide the conceptual framework for the research project at hand.

1.4 The Evidence: Effects of Team-Based Working

In this section, we review the potential individual and organisational benefits of team-based working in all sectors.

According to West and Markiewicz (2004) team-based working in organisations affords twelve primary benefits: efficient processes, flexible response to change, improved effectiveness, reduced costs, increased innovation, effective partnering, customer involvement, employee commitment and well-being and innovation and skill utilisation. Each of these benefits represents a potential output in the IPO model. Following Delarue *et al.* (2008), research evidence that links team-based working to a number of outcomes (operational, financial, structural, and worker) will now be reviewed. This will

be followed by a more detailed review of research which has specifically focused on team-based working in the healthcare sector.

1.4.1 Team-based working and operational outcomes

The contribution that team working can make to organisational effectiveness has been demonstrated in a range of studies. For example, Levine and D'Andrea-Tyson (1990) concluded that substantive employee participation leads to sustained increases in productivity and that teams effectively enable such participation. Cohen, Ledford, & Spreitzer (1996) also reported a significant impact on both efficiency and quality when a work organisation incorporated teams with strong employee involvement.

As previously discussed, reducing the number of layers in an organisation is a key characteristic of team-based organisations. This, combined with the introduction of team-based working and flexible job descriptions, were all positively related with various operational outcomes in a study by Bacon and Blyton (2000). Similarly, in a review of 12 large-scale surveys and 185 case studies of managerial practices, Applebaum and Batt (1994) concluded that team-based working led to improvements in organisational performance in terms of both efficiency and quality. In a subsequent study, they confirm the relationship between teamwork and improved quality (Batt & Applebaum, 1995).

A number of other survey-based studies have also reported links between team-based working and improvements in both labour productivity and quality (Banker, Field, Schroeder, & Sinha, 1996; Batt, 1999; 2001; Benders & Van Hootegem, 1999; Elmuti, 1997; Mathieu, Gilson, & Ruddy, 2006; Paul & Anantharaman, 2003; Procter & Burridge, 2004; Stewart & Barrick, 2000; Tata & Prasad, 2004). Finally, positive effects of teamwork on productivity have also been recorded in US steel mills (Boning, Ichniowski & Shaw, 2001), the US apparel industry (Dunlop & Weil, 1996) and the Australian economy (Glassop, 2002). Overall, it can be concluded that teamwork is likely to have a positive impact on operational performance (Delarue *et al.* 2008).

1.4.2 Team-based working and financial outcomes

A similar relationship is found between teamwork and financial outcomes. In a meta-analysis of 131 field studies on organisational change, Macy and Izumi (1993) found that interventions with the largest effects upon financial measures of organisational performance were team development interventions or the creation of autonomous work groups. In a study of German organisations, economic value added significantly increased after the introduction of shop floor participation scheme, of which teamwork formed a significant part (Zwick, 2004). Similarly, Cooke (1994) reported that the introduction of teamwork had a significant effect on value added per employee.

More recently, a study conducted by Barrick, Bradley, Kristof-Brown, and Colbert (2007) demonstrated that communication and cohesion among credit union top-management teams was shown to positively impact on the firm's financial ratios. This supports Paris *et al.* (2000) view that effective teamwork is characterised by team members cooperating and communicating together to produce a superior and synchronised collaborative output. The research supports the notion that if team-based working is to generate organisational level benefits, then the building blocks of the organisation - the teams themselves - must be effective.

1.4.3 Team-based working and structural outcomes

A small number of studies have reported on the effects that the introduction of teamwork can have on structural changes within an organisation. A key characteristic of team-based working is the decentralisation of decision making to lower levels in the organisation. Indeed, Bacon and Blyton (2000) noted that a decrease in layers of management was an important reason for the introduction of team-based working. As a result, organisations that use self-managing work groups have been shown to be less hierarchical in structure and demonstrate a broader span of control (Glassop, 2002).

Tata and Prasad's (2004) results demonstrate that a decentralised organisational structure leads to increased team effectiveness. Further, a combination of team-based working and a flatter organisational structure can further enhance the positive effect upon profitability (Zwick, 2004). Team-based work has also been positively linked to

establishment layoffs, which fell disproportionately upon managers (Osterman, 2000), and a reduction of throughput time (Benders & Van Hootegem, 1999). This evidence combined suggests that performance can be further enhanced when team-based working is combined with a favourable structural change.

1.5.4 Team-based working and worker outcomes

With regards to the link between team-based working and individual-level outcomes, a number of studies have demonstrated that overall, the impact on employee behaviour (e.g. absenteeism, turnover) and employee attitudes (e.g. commitment, motivation) is largely favourable.

In a survey of Canadian employees, Godard (2001) focused on the attitudinal and behavioural outcomes and found that team-based working had statistically significant correlations with job satisfaction, empowerment, commitment, citizenship behaviour, task involvement and belongingness. A number of other studies have linked the job characteristics associated with self-managed teams with significant improvements in organisational commitment and job satisfaction (Batt, 2004; Batt & Appelbaum, 1995; Elmuti, 1997).

Organisations with teams have shown lower levels of employee turnover (Glassop, 2002), and reduced absenteeism has also been linked to the large-scale use of teams (Benders & Van Hootegem, 1999; Cohen *et al.*, 1996; Delarue, Van Hootegem, Huys, & Gryp, 2004). Finally, Bacon and Blyton (2000) found that motivation, enjoyment of one's job and interest in one's job were all linked with workers under 'high-road' team-based working.

However, it should be noted that Harley (2001) found no significant differences in terms of stress, satisfaction and commitment between team members and non-team members. Some researchers have also argued that team-based working can intensify workload and control (Barker, 1993). Despite this, the results for the relationship between individual-level outcomes and team-based working are generally very positive.

1.5 Team-Based Working in Healthcare Organisations

In this section, we review the potential individual and organisational benefits of team-based working specific to research in the healthcare domain.

In this section, we review the current research literature on the effects of team-based working in health care organisations, and identify to what extent such interventions and initiatives have generated positive outcomes for both healthcare staff and service users. Firstly, a brief review of the history and prevalence of teamwork in healthcare organisations will be provided.

The introduction of the National Cancer Act in 1971 in the USA triggered noteworthy changes to the structure of health organisations around the world, including the USA, Canada, Australia and Europe, in which workforces' delivering healthcare were organised largely into teams (Fleissig, Jenkins, Catt, & Fallowfield, 2006; Tattersall, 2006; Borrill, West, Shapiro, & Rees, 2000). Over recent years the importance of team working in healthcare has been emphasised in the government's vision for the improved quality of care (Department of Health, 2000; 2008), and along with leadership, was emphasised as being at the heart of Clinical Governance (Scully & Donaldson, 1998). The recent report by Lord Darzi (2008), *High Quality Care for All – NHS Next Stage Review* team-based working is described as an imperative right from the days of the inception of the NHS.

> *Healthcare is delivered in a team. The team includes clinicians, managerial staff and those in supporting roles. All members of the team are valued. The sense of a shared endeavour – that all of us matter and stand together – was crucial in the inception of the NHS. (p59)*

It is well documented that poor team working can jeopardise patient safety (NCEPOD, 2002; West *et al.,* 2002). Conversely, successful teamwork is associated with innovative and effective healthcare delivery (West *et al.,* 1998). The potential benefits of team working in primary care are three-fold; firstly, teamwork can increase task effectiveness (thus, improving patient health and satisfaction), secondly, team working can improve the well-being and morale of team members, and thirdly, team viability is improved (Bower, Campbell, Bojke, & Sibbald, 2006).

Research carried out by Borrill *et al.* (2000) looked closely at the effects of team working and effectiveness in the NHS and reached a number of conclusions. They found that innovative, high quality care was most likely to be provided by teams whose members were able to state clear and shared work objectives, emphasised quality, communicated well and held good quality meetings. These teams also tended to be composed of a diverse range of professional groups. As can be seen, many of these characteristics mirror those of our conceptualisation of a 'real team', as discussed earlier in this chapter. So, what does effective team-based working in healthcare actually achieve?

1.5.1 Team-Based working and reduced hospitalisation and costs

Sommers, Marton, Barbaccia, and Randolph (2000) compared primary healthcare teams in the US with physician care across 18 private practices, and concluded that primary healthcare teams lowered hospitalisation rates and reduced physician visits while maintaining function for elderly patients with chronic illness and functional deficits. Significant cost savings were made from reduced hospitalisation, more than accounting for the costs of setting up the team and making regular home visits. Jones (1992) also reported that families that received visits from a primary health team care rather than from a doctor alone had fewer hospitalisations, operations, physician visits for illness and more physician visits for health supervision than control families. A similar pattern emerged for terminally ill patients, where increased use of home care services was offset by savings in hospital costs (Hughes *et al.,* 1992). Eggert, Zimmer, Hall, and Friedman (1991) found that a team-focussed case management system in the USA reduced total health care expenditure by 13.6%, when compared to an individualised case management system for elderly, chronically ill patients. The team combined earlier discharge, timely nursing home placement and better-organised home support and care, to reduce patient hospitalisation by 26%. The cost increases in ambulatory and nursing home care were offset by fewer and shorter stay hospital admissions and reduced home care utilisation.

1.5.2 Team-Based working and improved service provision

Nurses in England reported that working together in primary health care teams reduced duplication of efforts, streamlined patient care and enabled specialist skills to be used more cost-effectively (Ross, Rink, & Furne, 2000). Jansson, Isacsson, and Lindhom (1992) analysed the records of general practitioners and district carers over six years in Sweden. Care teams (GP, district nurse, assistant nurse) were introduced into one region but were absent in another comparative region. The care teams reported a rise in the overall number of patient contacts and in the proportion of the population that accessed the district nurse. Concurrently, there was a reduction in emergency visits, which they attributed to better accessibility and continuity of care in the teams. Jackson, Sullivan, and Hodge (1993) reported a similar pattern twelve months after the introduction of a community mental health team in England. They reported a threefold increase in the rate of patient access to care and a doubling in the prevalence of treated psychiatric disorder and a reduction in demand on the hospital's outpatient services. It was suggested that the team was making specialist care more available to patients with severe mental illness who would not have previously received care from mental health services. The team also provided care in a timelier manner that was accessible and continuous.

Team working also contributes to performance in health care organisations by reducing errors and improving the quality of patient care (Firth-Cozens, 2001). The association between team working and these aspects of performance is recognised in a number of studies (Firth-Cozens, 1998; Adorian, Silverberg, Tomer, & Wamosher, 1990; Healthcare Commission, 2004). In addition, poor teamwork has been shown to affect staffing levels negatively in that it is associated with early retirement (Luce *et al.,* 2002) and increased sickness absence in doctors (Kivimaki *et al.*, 2001).

1.5.3 Team-Based working and lower patient mortality

West *et al.* (2002) carried out research on the relationship between the people management practices in hospitals and patient mortality and revealed a strong relationship between human resource management practices and patient mortality. One of the three practices most strongly associated with mortality was team working;

the others were the extent and sophistication of appraisal and whether there were readily available training policies for all staff groups. Results showed that the higher the percentage of staff working in teams in hospitals, the lower the patient mortality. On average, in hospitals where over 60% of staff reportedly worked in formal teams, mortality was around 5% lower than would be expected. The study controlled for a variety of factors that might influence the results including the number of doctors per 100 beds, variations in local health profiles, hospital and income etc. The study was also extended to control for mortality prior to the time when HRM practices were assessed demonstrating that the effects were from HRM practices to mortality rather than vice versa. These three practices may also reflect other organisational factors such as improving general management (Firth-Cozens, 2001, 2004).

1.5.4 Team-Based working and enhanced patient care

Hughes *et al.* (1992) compared the provision of home care by teams with traditional hospital-based care where team work was not so evident for 171 terminally ill patients in a large U.S. Department of Veterans Affairs hospital. Hughes *et al.* found improved patient and carer satisfaction with team home care. Both patients and caregivers of the team expressed significantly higher levels of satisfaction with continuous and comprehensive care, at one month and six months into the study. Sommers *et al.* (2000) report an increase in satisfaction among patients who had access to a primary healthcare team as opposed to doctors alone. They reported a higher level of activities, fewer symptoms and improved overall health.

Wagner (2000) also argues for a collaborative approach for improvement in healthcare delivery. Wagner (2000) reported that quality of care provided for patients with chronic diseases can be improved when healthcare is delivered by multidisciplinary teams, in which team members are appropriately trained in their roles and have clearly delegated and defined roles. Pearson and Hones (1994) also emphasise that the delivery of healthcare by teams is most effective when a team is made up of a small number of healthcare professionals whom together execute very clear and specific functional task. Indeed, a recent study by Campbell and colleagues (2001) has shown

that effective team working and a better team climate can improve the processes of care provided for diabetes patients.

1.5.5 Team-Based working and innovation

Introducing new and improved healthcare for patients is a fundamental goal of health service organisations. To what extent is team working associated with innovation in patient care? West and Anderson (1996) carried out a longitudinal study of the functioning of top management teams in 27 hospitals and examined relationships between team and organisational factors and team innovation. Their results suggested that team processes best predicted the overall level of innovation, while the proportion of innovative team members predicted how radical the innovations introduced were rated. West and Wallace (1991) found that primary health care team collaboration, commitment and tolerance of diversity were positively related to team innovativeness. Data from a large scale study of healthcare team effectiveness in the UK suggested that team functioning was a positive predictor of innovations in health care in community mental health and primary health care teams (Borrill *et al.,* 2000). Similar findings emerge from a study of breast cancer care teams (West *et al.,* 2003).

1.5.6 Team-Based working and staff well-being

The stress of doctors is particularly relevant to the issues explored in this chapter because medical stress is relatively high and stress and error are intimately linked in doctors (Firth-Cozens, 2001). For example, Houston and Allt (1997) found that insomnia and stress increased alongside errors as junior doctors began work in a new post. However, there is also evidence that team-based working leads to lower stress. Wall *et al.* (1997) found that 28% of health staff overall were above the threshold on the General Health Questionnaire compared to 18% of workers in the British Household Panel Survey of 1993. However, the prevalence of stress among staff working in teams was 21%, substantially below the average for the NHS (Carter & West 1998). That is, those working in 'real' teams – ones with clearly defined roles, whose members worked together to achieve them, with different roles for different members, and recognised externally as a functional team (21%) – had lower stress levels than those in teams that did not meet these criteria (30%); while these in turn

had lower scores than those not working in teams (35%). These differences in stress between types of team membership were accounted for by the higher levels of social support and role clarity experienced by those working in clearly defined teams. Similarly, primary care team working has been reported to improve staff motivation and satisfaction (Wood, Farrow, & Elliott, 1994).

Members of effective teams report high job satisfaction, role clarity and well-being (Mickan & Rodger, 2005). Referring back to the research of Borril *et al.* (2000), their findings further suggested that effective teams are more highly motivated and suffer from lower levels of stress. Similar findings were also reported by Firth-Cozens and Moss (1998). These are important findings as not only is the NHS one of the largest employers in Britain, there is also evidence to suggest that stress can affect the efficacy of treatment and care provided. In 1989, a report commissioned by the Nuffield Trust suggested that staff in the National Health Service, suffer more from stress-related psychological morbidity than any other professional sector (Williams, 1989). Subsequently, a study of the mental health of staff from 19 NHS hospital trusts found greater levels of stress among workers generally (Muncer, Green, Taylor, & McManus, 2001).

Information-overload, pressure to perform and ambiguous situations are commonplace in the rapidly changing environment of healthcare (Orasanu & Connolly, 1993). This makes working as a seamless high performing team difficult, especially given that healthcare teams tend to be multidisciplinary and short-lived, with team membership frequently changing. At a broader level, embedded professional boundaries and strong hierarchical structures have made it difficult to achieve effective teamwork in the healthcare context. Given these difficulties and barriers, the purpose of the project was to examine how we can build NHS organisations that ensure the effectiveness of work teams in improving the working lives of NHS staff and providing the best quality care for patients. Currently there is little guidance or advice to managers on how to build team-based organisations. Yet emerging evidence suggests that it is the organisational context rather than team processes that determines the effectiveness of team-working

within and across organisations (West, Tjosvold, & Smith, 2003; West & Markiewicz, 2004).

1.6 Facilitators of team-based working in the healthcare context

In this section, we review the potential factors which could act as facilitators of team-based working.

In line with previous calls from research for a closer examination of the environment within which teams are embedded (e.g. Ilgen, 1999, Marks *et al.,* 2005) the following section will consider the factors that may promote (or inhibit) team-based working in healthcare organisations. Indeed, Devine, Clayton, Phillips, Dunford and Melner (1999) argue that factors that impact on team effectiveness are contingent on the context in which the team operates.

Teams do not operate in an organisational vacuum (Hackman, 2002). What is needed for team effectiveness is not only real teams, but also a supportive organisational context that reinforces the team-based structure. Hackman (2002) argues that the likelihood of team effectiveness is increased when a team has an enabling structure that facilitates rather than impedes team working, exists within a supportive organisational context and has access to expert coaching. Hackman (2002) identified three critical organisational systems that have particularly high leverage in supporting real teamwork. For a real team to be well supported the organisation should provide an educational system that offers all the training and technical aids that a team may need, an information system that supplies data to help members to plan their team objectives, and a reward system that allows for positive consequences for good team performance (Hackman, 2002).

Research evidence related to examples of organisational factors that can facilitate effective team-based working will now be discussed. According to Schneider (1990), organisational climate can be defined as the behaviours, processes and practices that an organisation supports and rewards. How individuals perceive the organisational climate can influence the effectiveness of teams. Where an organisational climate exerts low autonomy, high control and lack of concern for employee welfare, team work is unlikely to be effective (West & Markiewicz, 2004). Secondly, according to

Sundstrom *et al.* (1990), organisations that encourage innovation and incorporate shared expectations of success in their values and culture may especially foster team effectiveness. Further, research by Galagan (1986) indicated that organisations which successfully implement work teams have similar cultures, often guided by the philosophies of senior management.

With regards to senior management leadership, there is considerable evidence to suggest that leaders affect team performance (see Komaki, Desselles, & Bowman, 1989; Brewer, Wilson, & Beck 1994). In cases where senior management set out clear visions of where an organisation is headed, support new ideas and build strong positive relationships there is likely to be more positive outcomes associated with team-based working. Previous research, although not conducted in the domain of healthcare, has also demonstrated that team reward is an important factor that can enhance team effectiveness and improve performance (Tata & Prasad, 2004). Similarly, Cooke (1994) reported that teamwork and team-based incentives yield substantial improvements in organisational-level performance. However, not all research has reported positive effects of compensation on team performance (e.g. Batt & Appelbaum, 1995; Osterman, 2000), so results should be interpreted with caution.

1.7 Our research approach

Given the body of evidence about the benefits of effective team working generally and in a healthcare context, we need to discover what factors promote effective team-based working in NHS organisations. The overall challenge and the aim of this research was to answer the question: *how can we build NHS organizations that ensure the effectiveness of work teams in providing the best quality patient care?* From this we also had a number of research objectives:

1. To determine whether, and which aspects of, team-based working predicts Trust performance, patient satisfaction and staff well-being.
2. To determine whether an increase in the level of team-based working predicts Trust performance, patient satisfaction and staff well-being.
3. To determine whether leadership, culture and HR support systems influence levels of team-based working in the NHS.

4. To determine whether team-based working interacts with HR support, culture and leadership to predict Trust performance, patient satisfaction and staff well-being.
5. To evaluate the effects of interventions in NHS Trusts that seek to promote team-based working upon patient care and delivery of services to patients.
6. To identify the barriers to, and facilitators of, implementing team-based working in NHS Trusts.
7. To determine which aspects of interventions to develop team-based working most influence the success of the interventions.
8. To determine what strategies the most well developed team-based organisations pursued in order to effectively implement team-based working.
9. To develop practical guidelines for NHS Trusts for how to implement team-based working successfully.

To answer the central research question and research objectives one to five we used quantitative data collected from the national NHS staff survey to examine whether well-structured 'real' team-based working in NHS Trusts was associated with employee well-being, patient satisfaction and measures of Trust performance. This was supplemented by data collected from interviews with senior managers and focus groups with staff in fourteen NHS trusts which displayed 'high', 'increasing' and 'low' levels of 'well-structured' team-based working. To answer objectives six to eight we collected data from interviews with senior managers and focus groups with staff in eight NHS trusts that have recently introduced interventions designed to promote team-based working with the aim of examining the barriers to, and facilitators of, team-based working (e.g. top management support, organisational culture and structure, team leader and facilitator training); and also, the impact on staff members and delivery of patient care.

In **chapter two** we report quantitative analysis of the Healthcare Commission national NHS Staff survey and examine the links between the number of staff employed in well structured 'real teams' across NHS Trusts and performance (**research objective one**), and whether a change in the numbers of staff employed in well structured 'real teams' was associated with performance (**research objective two)**. In this chapter we also examine other potential factors which could influence team-based working

(**research objective three**), and whether these factors then interact with team-based working to influence performance (**research objective four**).

In **chapter three** we report quantitative analysis of the Healthcare Commission national NHS Staff survey and examine the links between team-based working and staff member well-being (**research objective one**), and also provide detailed analysis to examine which aspects of team-based working are important in these relationships (**research objective one**). In **chapter four** we supplement the quantitative analysis with findings from interviews with senior managers and focus groups with staff members in trusts which displayed high, increasing and low levels of structured 'real' team-based working (**research objectives one and eight**).

In **chapter five** we report findings from the qualitative analysis of interviews with senior managers and focus groups with staff members in trusts which had recently introduced initiatives to promote team-based working (**research objective five**), and this analysis examined the barriers to, and facilitators of, implementing such team-based working initiatives (**research objectives six and seven**).

Finally, in **chapter six** we present the **key findings** of research project and **offer recommendations**, based on our research findings, about the steps that NHS organisations can take to implement team-based working (**research objective nine**).

2 TEAM-BASED WORKING AND PERFORMANCE

In this chapter, we use the data collected from the National NHS Staff Surveys to examine the relationship between team-based working, and changes in team-based working, and staff well-being and trust performance. We also examine the potential effects of other variables on these relationships. We use this data to address research objectives one, two, three and four.

2.1 Key Findings

Our analysis identified that, across NHS Trusts, the proportion of staff working in 'real teams' was associated with lower levels of:

- work-related stress and injuries
- errors and incidents
- harassment, bullying and abuse

The proportion of staff working in 'real teams' was related to the trusts' scores in the Healthcare Commission Annual Health Check in relation to:

- Use of resources
- Quality of services

Our analysis also identified that, across NHS Trusts, a year-on-year increase in the proportion of staff working in 'real teams' was associated with lower levels of

- work-related stress
- errors and incidents
- harassment, bullying and abuse

An increase in the proportion of staff working in 'real teams' was also related to the trusts' scores in the Healthcare Commission Annual Health Check in relation to:

- Use of resources
- Quality of services

Our analysis identified that, across NHS Trusts, where the prevailing organisational climate of the trust was positive and supportive, managers were supportive of staff and jobs were well designed, then respondents were more likely to work in well structured teams.

Finally, our analysis identified, across NHS Trusts, that a combination of:

- managerial support for work-life balance and good team-based working was associated with shorter patient waiting times
- jobs which were well designed and good team-based working was associated with shorter patient waiting times
- a positive and supportive organisational climate and good team-based working was associated with lower patient mortality and shorter patient waiting times

2.2 Research Methods

2.2.1 Sample details

The present study used part of the national NHS staff survey data gathered in the UK in 2006[1]. All NHS trusts in England took part in this survey. Eligible individuals were all employees in officially in post on September 1st, 2006. Confidentiality and anonymity were assured to potential individual participants. The number of questionnaires distributed in each NHS Trust was determined on a sliding scale of and was dependent on the number of employees in the trust: trusts with fewer than 600 employees were required to conduct a full census, whereas trusts with over 3,000 staff were required to sample 850 employees. Six independent survey companies were responsible for distributing, collecting, and entering original data. The data was collected between October and December 2006.

In total, there were 128,328 respondents from the 326 NHS trusts that took part[2], representing a response rate of 54%. This included 62,591 responses from the 151 non-specialist acute trusts, 6,838 from the 20 specialist acute trusts, 30,694 from the 75 PCTs, 23,659 from the 58 mental health trusts and 4,546 from the 12 ambulance trusts. Of these, 79% were female. 15% were aged 30 or under, 25% between 31 and 40, 32% between 41 and 50, and 28% over 50. 86% of the sample were white, 6% Asian/British Asian, 5% Black/Black British, 1% of mixed race and 1% other. 31% were nurses/midwives with a further 8% nursing assistants, 6% medical/dental, 12% allied health professionals, 6% scientific/technical, 3% ambulance staff, 1% social care staff, 20% admin/clerical staff, 5% maintenance/ancillary staff, and 6% general managers or NHS infrastructure staff.

[1] For some tests, data from earlier years were also used for three reasons. For the outcome "patient mortality", data from the 2004 survey were used so that the most recent mortality data available at the time of analysis (2005-6) were subsequent to the survey data; for questions involving change in the level of team-based working, data from the previous year (2005, or 2003 for mortality) were used as the baseline for the change and as a control variable; for questions involving survey data predicting the level of team working, data from the previous year (2005) were used as independent variables to avoid the problem of effect size inflation due to common method variance. For the sake of clarity, details of these earlier samples are not included here, but can be found at www.healthcarecommission.org.uk/staffsurveys

[2] Due to the reorganisation of PCTs during 2006, only the 75 PCTs that did not change took part in the survey that year

2.2.2 Measures

Team-based working

As part of the NHS staff survey, eligible respondents were asked a series of questions relevant to team working. The respondents were asked whether they worked in a team. If a respondent gave the answer 'no', they were classified as not working in a team. If a respondent gave the answer 'yes', they were assigned into one of two further groups basing on the answers to the following three questions:

a) Whether the team they worked in had clear objectives;
b) Whether they had to work closely with other team members to achieve the team's objectives; and
c) Whether the team met regularly to discuss its effectiveness and how it could be improved.

If the respondents answered 'yes' to all three questions above, they were classified as working in a 'real team'. If they answered, 'no' to any of the three questions above they were initially classified as working in a 'pseudo team'. These scores were then aggregated to the organisational (trust) level by taking the proportion of staff working in real teams and pseudo teams within each. To look at the increase in team working, the difference between the proportion working in real teams in the trust between 2006 and 2005 was taken.

Safety at work

Seven dichotomous items were used from the NHS staff survey to assess individuals' experiences of safety at work, including whether the respondents had:

- Experienced work-related injury – Respondents were asked 'During the last 12 months have you been injured or felt unwell as a result of the following problems at work: a) moving and handling, b) needlestick and sharps injuries, c) slips, trips or falls, and/or d) exposure to dangerous substances'. The trust-level score was the proportion of respondents who answered 'Yes' to any of these questions.
- Experienced work-related stress – Respondents were asked 'During the last 12 months have you been injured or felt unwell as a result of the following problems

at work: e) work-related stress'. The trust-level score was the proportion of respondents who answered 'Yes' to this question.

- Witnessed errors, near misses, or incidents that could hurt staff or patients – Respondents were asked 'In the last month, have you seen errors, near misses, or incidents that could have hurt: a) patients or b) staff'. Two trust-level scores were composed as the proportion of respondents who answered 'Yes' to each of these.
- Experienced physical violence from patients / service users – Respondents were asked 'In the last 12 months have you experienced physical violence from any of the following: a) patients / service users, b) relatives of patients / service users'. The trust-level score was the proportion of respondents who answered 'Yes' to either of these questions.
- Experienced physical violence from other work colleagues – Respondents were asked 'In the last 12 months have you experienced physical violence from any of the following: c) manager / team leader, d) colleagues'. The trust-level score was the proportion of respondents who answered 'Yes' to either of these questions.
- Experienced harassment, bullying or abuse from patients / service users – Respondents were asked 'In the last 12 months have you experienced harassment, bullying or abuse from any of the following: a) patients / service users, b) relatives of patients / service users'. The trust-level score was the proportion of respondents who answered 'Yes' to either of these questions.
- Experienced harassment, bullying or abuse from other work colleagues – Respondents were asked 'In the last 12 months have you experienced harassment, bullying or abuse from any of the following: c) manager / team leader, d) colleagues'. The trust-level score was the proportion of respondents who answered 'Yes' to either of these questions.

Organisational culture, Leadership and HR support

Organisational culture and leadership could be measured relatively directly from the NHS staff survey via the 'organisational climate' and 'support from immediate managers' variables; HR support was not measured directly in the survey, so two proxy measures were used 'support for work-life balance' and 'quality of job design'. The four measures included for this section are described as follows.

- Organisational climate – Respondents were asked six questions relating to communication, staff involvement, innovation and quality of care in their organisation. These formed a scale representing organisational climate (Cronbach's alpha = 0.87). This scale was then aggregated to the organisational level (ICC2 = 0.96).
- Support from immediate managers – Respondents were asked five questions about the support they received from their immediate manager or supervisor. These formed a reliable scale (Cronbach's alpha = 0.87). This scale was then aggregated to the organisational level (ICC2 = 0.92).
- Support for work-life balance – Respondents were asked three questions relating to the support offered by their employer for a good work-life balance, as a proxy for HR support. These formed a reliable scale (Cronbach's alpha = 0.91). This scale was then aggregated to the organisational level (ICC2 = 0.94).
- Quality of job design – Respondents were asked six questions relating to their role clarity, feedback and autonomy. These formed a scale representing job design, an important facet of good HR management (Cronbach's alpha = 0.83). This scale was then aggregated to the organisational level (ICC2 = 0.91).

Trust performance

Four separate measures of trust performance were used, three of which applied only to the acute trusts within the sample. These are described as follows.

- Patient satisfaction (acute trusts only): Patient satisfaction is measured via the Healthcare Commission survey of adult inpatients in acute trusts in 2007. It uses the single question 'Overall, how would you rate the care you received?', which is highly correlated with many of the other questions. The score was averaged across all respondents. For some analysis the 2006 data were used as a control variable.
- Patient mortality (acute trusts only): This is a trust level measure of standardised mortality of ratio which compares the actual number of deaths with the expected number of deaths, and takes into account factors including: a) age and gender of patients, b) original diagnosis, c) whether the admission was planned or an emergency, and d) the length of stay. It is published by www.drfoster.co.uk, and the outcome used was the mortality in the NHS year 2005-6, which was the most

recent year available at the time of analysis, and for some analysis data from 2003-4 were used as a control variable.

- Waiting times for inpatient admissions (acute trusts only): This is measured as the proportion of inpatient admissions that occur within 13 weeks of referral. Data are published by the Department of Health, and the outcome used was the proportion in the first quarter of the NHS year 2007-8, and for some analysis data from the previous year were used as a control variable.
- Healthcare Commission Annual Health Check (AHC): This is a trust level measure of two aspects of trust performance: a) use of resources and b) quality of services. Data are taken from the 2007 AHC, and for some analysis 2006 data were used as a control variable.
    - Use of resources: This measure looks at how effective a trust is at financial management and is calculated on a four-point scale of 'Excellent', 'Good', 'Fair', or 'Weak'.
    - Quality of services: This measures trust's performance against the healthcare standards set out in 'Standards for better health', Department of Health targets and Healthcare Commission targets set out in 'National Standards, Local Action: Health and social care standards and planning framework', and is calculated on a four point scale of 'Fully met', 'Almost met', 'Partly met' and 'Not met'.

2.2.3 Preliminary data analysis

Before testing the effects of team-based working on safety at work and psychological well-being, we tested to see whether any organisational background variables were associated with variations in team based-working and the outcome variables.

Breakdowns of all the above variables by trust type and region are shown in the two tables below. Table 2.1 shows the results of ANOVAs for trust type, and table 2.2 the results of ANOVAs for region, and these show that all variables other than patient mortality varied by trust type; mortality, along with several other variables, differed significantly by region also. Therefore trust type and region were included as control variables in all subsequent organisational level analysis.

Table 2.1: **Preliminary data analysis for trust type**

	Acute non-specialist	Acute specialist	PCT	Mental health/learning disability	Ambulance
% staff in real teams	52%	57%	62%	61%	20%
% staff in pseudo teams	39%	35%	31%	33%	61%
% staff suffering from work-related injuries	19%	16%	12%	10%	37%
% staff suffering from work-related stress	32%	29%	33%	34%	33%
% staff witnessing errors that could affect patients	36%	30%	19%	23%	34%
% staff witnessing errors that could affect staff	24%	21%	16%	24%	34%
% staff experiencing violence from patients	11%	5%	6%	22%	28%
% staff experiencing violence from work colleagues	1%	1%	1%	1%	2%
% staff experiencing harassment, bullying and abuse from patients	27%	18%	21%	33%	48%
% staff experiencing harassment, bullying and abuse from colleagues	18%	18%	15%	16%	19%
Organisational climate	2.90	3.22	3.09	2.99	2.59
Support from immediate managers	3.41	3.50	3.59	3.61	2.99
Support for work-life balance	3.29	3.43	3.55	3.52	2.93
Quality of job design	3.29	3.35	3.36	3.32	2.89
Patient satisfaction	76.33	87.89	-	-	-
Patient mortality	101.38	93.92	-	-	-
Waiting times	86%	90%	-	-	-
AHC: Use of resources	2.39	3.00	2.20	2.60	1.82
AHC: Quality of services	2.59	3.30	2.34	3.28	2.27

Table 2.3 shows the correlations between all the variables, but also with trust size (measured by number of employees). There was a significant and positive correlation between trust size and all survey variables other than the percentage staff suffering from work-related stress, but was not significantly associated with any of the organisational performance variables. Nevertheless, for the sake of consistency, this was used as a control variable in all subsequent organisational level analysis.

Table 2..2: **Preliminary data analysis for region**

	East Midlands	East of England	London	North East	North West	South East	South West	West Midlands	South Central	Overall
% working in a real team	51	55	58	56	55	53	52	53	55	55
% working in a pseudo team	41	36	34	36	36	38	39	38	37	37
% staff suffering work-related injuries	17	16	15	15	14	17	18	17	16	16
% staff suffering work-related stress	33	31	34	32	33	31	32	32	30	32
% staff witnessing errors and incidents that could hurt patients	29	32	28	26	29	30	31	28	30	29
% staff witnessing errors and incidents that could hurt staff	23	24	22	20	23	22	24	22	23	22
% staff experiencing physical violence from patients	14	13	9	13	12	12	15	12	13	12
% staff experiencing physical violence from work colleagues	1	1	2	1	1	1	1	1	1	1
% staff experiencing harassment, bullying and abuse from patients	28	29	25	26	26	27	30	27	26	27
% staff experiencing from work colleagues	16	17	18	15	16	17	17	16	16	17
Organisational climate	2.88	2.96	3.03	3.01	2.99	2.94	2.90	2.93	2.96	2.97
Support from mangers	3.44	3.48	3.52	3.49	3.50	3.46	3.45	3.44	3.51	3.48
Support for work-life balance	3.36	3.37	3.41	3.42	3.43	3.36	3.34	3.34	3.39	3.39
Quality of job design	3.25	3.31	3.36	3.30	3.29	3.27	3.25	3.27	3.31	3.30
Patient satisfaction	76.25	76.41	74.27	78.55	79.52	76.23	79.08	77.45	77.78	77.32
Patient mortality	106.89	100.80	94.41	98.07	99.01	105.62	97.28	113.36	98.23	100.59
Waiting times	84	84	83	89	91	76	87	87	90	86
AHC: Use of resources	2.65	2.44	2.25	2.54	2.73	1.85	2.34	2.14	2.56	2.40
AHC: Quality of services	3.06	2.89	2.68	2.81	2.63	2.25	2.41	2.77	2.67	2.68

Table 2..2: **Correlations of study variables**

	1	2	3	4	5	6	7	8	9	10
1) Trust size										
2) % working in a real team	-0.32									
3) % working in a pseudo team	0.36	-0.96								
4) % staff suffering work-related injuries	0.34	-0.81	0.78							
5) % staff suffering work-related stress	0.01	-0.07	0.13	0.03						
6) % staff witnessing errors and incidents that could hurt patients	0.56	-0.53	0.56	0.63	0.04					
7) % staff witnessing errors and incidents that could hurt staff	0.43	-0.58	0.60	0.58	0.25	-0.72				
8) % staff experiencing physical violence from patients	0.19	-0.37	0.37	0.25	0.18	0.15	0.63			
9) % staff experiencing physical violence from work colleagues	0.15	-0.26	0.27	0.35	0.19	0.34	0.42	0.22		
10) % staff experiencing harassment, bullying and abuse from patients	0.21	-0.52	0.51	0.42	0.30	0.29	-0.71	0.82	0.31	
11) % staff experiencing harassment, bullying and abuse from work colleagues	0.24	-0.40	0.42	0.40	0.40	0.50	0.48	0.13	0.50	0.29
12) Organisational climate	-0.35	0.66	-0.69	-0.50	-0.46	-0.44	-0.54	-0.37	-0.19	-0.50
13) Support from mangers	-0.31	0.87	-0.84	-0.82	-0.20	-0.59	-0.57	-0.27	-0.30	-0.44
14) Support for work-life balance	-0.40	0.79	-0.79	-0.78	-0.26	-0.68	-0.62	-0.27	-0.37	-0.45
15) Quality of job design	-0.20	0.83	-0.82	-0.63	-0.32	-0.34	-0.51	-0.44	-0.15	-0.56
16) Patient satisfaction	-0.04	0.23	-0.18	-0.09	-0.32	-0.23	-0.32	-0.32	-0.18	-0.54
17) Patient mortality	-0.10	-0.09	0.03	-0.10	0.03	-0.03	0.02	0.05	-0.18	0.14
18) Waiting times	-0.03	0.09	-0.09	-0.15	-0.09	-0.13	-0.13	-0.05	-0.18	-0.21
19) AHC: Use of resources	0.05	0.15	-0.17	-0.12	-0.27	-0.01	-0.06	0.01	-0.12	-0.10
20) AHC: Quality of services	0.05	0.18	-0.16	-0.14	-0.16	-0.06	0.02	0.14	0.01	0.06

Note: all correlations across whole sample are significant ($p < .05$) if $|r| \geq 0.12$; those involving acute trusts alone (variables 16-18) are significant ($p < .05$) if $|r| \geq 0.15$.

Table 2..2: **Correlations of study variables (cont)**

	11	12	13	14	15	16	17	18	19
1) Trust size									
2) % working in a real team									
3) % working in a pseudo team									
4) % staff suffering work-related injuries									
5) % staff suffering work-related stress									
6) % staff witnessing errors and incidents that could hurt patients									
7) % staff witnessing errors and incidents that could hurt staff									
8) % staff experiencing physical violence from patients									
9) % staff experiencing physical violence from work colleagues									
10) % staff experiencing harassment, bullying and abuse from patients									
11) % staff experiencing harassment, bullying and abuse from work colleagues									
12) Organisational climate	-0.40								
13) Support from mangers	-0.51	0.71							
14) Support for work-life balance	-0.52	0.76	0.90						
15) Quality of job design	-0.38	0.81	0.83	0.74					
16) Patient satisfaction	-0.12	0.44	0.27	0.40	0.18				
17) Patient mortality	-0.11	-0.18	-0.16	-0.15	-0.15	-0.36			
18) Waiting times	-0.14	0.20	0.11	0.22	0.07	0.31	-0.05		
19) AHC: Use of resources	-0.09	0.40	0.20	0.23	0.25	0.32	0.00	0.41	
20) AHC: Quality of services	-0.05	0.36	0.22	0.23	0.26	0.29	0.01	0.28	0.36

Note: all correlations across whole sample are significant ($p < .05$) if $|r| \geq 0.12$; those involving acute trusts alone (variables 16-18) are significant ($p < .05$) if $|r| \geq 0.15$.

2.2.5 Main data analysis strategy

The analysis conducted in this section was based on regression analysis. As described above, trust type, region and trust size were used as control variables throughout. The analysis falls into three main sections: team-based working predicting outcomes, organisational factors predicting team-based working, and organisational factors interacting with team-based working to predict outcomes. The outcomes were mainly percentages, and all approximated satisfactorily to a normal distribution.

For the first section, team-based working predicting outcomes (both trust performance and safety at work), three methods of analysis were used. First, a straight regression was carried out with percentage staff working in real teams predicting outcomes. Then, this was done for both percentage staff working in real teams and % staff working in pseudo teams predicting outcomes – the reasons for this are discussed below. Then this analysis was repeated, with prior measures of the outcomes included as control variables. This is known to be a highly conservative test to rule out reverse causality – if the result is significant with this control included, it is highly unlikely that the outcome affects team-based working rather than the other way round (although other explanations are still possible). Finally, a test to see if change in team-based working levels affected outcomes was conducted, by including a prior level of percentage staff working in real teams, and the change from 2005 to 2006, as predictors. The second section, again, is conducted in two ways – with and without a prior measure of team-based working as a control variable. For the third section, looking at interaction effects, only the main control variables are used.

2.3 Results and summaries

2.3.1 Team-based working as a predictor of safety at work

We examined the relationships between team-based working and safety at work. An implicit aim of team-based working is that individuals should work closely, inter-dependently, and supportively to achieve the team's goals and objectives. Working in this fashion should lead to reduced workload, reduced time pressures and a sense that there are sufficient resources to do the job because individuals can call upon others for help and assistance in achieving the team's goals and objectives. Team members should then feel less stressed. It should also lead to a more supportive working environment where incidents of violence, bullying and harassment are minimised, as colleagues are more vigilant of the work environment. It is also likely that 'real' teams will have lower error rates (involving both patients and staff members), and thus there will be fewer work-related injuries. This is because structured teams have more clearly defined roles and objectives, meet regularly and are reflective on things which have not gone well before and amended workplace behaviours accordingly. As such, in the next section we examine whether team-based work is related to various measures of safety at work.

Team-based working as a predictor of safety at work

If the respondent answers 'yes' to all three questions:
a) Does the team have clear objectives
b) Do team members work closely to achieve the team's objectives
c) Do team members met regularly to discuss its effectiveness and how it could be improved

they were classified as working in a 'real team'. If they answered, 'no' to any of the three questions above they were classified as working in a 'pseudo team'.

These were aggregated to the organisational (trust) level by taking the proportion of staff working in real teams and pseudo teams within each. To determine the increase in team working, the difference between the proportion working in real teams in the trust between 2006 and 2005 was taken.

Work-related injuries

Work-related stress

Witnessed errors and incidents

Experienced physical violence from patients or work colleagues

Bullying, harassment and abuse from patients or work colleagues

Table 2.4 shows the effect of percentage staff working in real teams, and the joint effects of percentage staff working in real teams, on the outcomes; and the same with prior measures of the outcomes included as control variables. Figures shown in the table are standardised regression (beta) coefficients.

Table 2.4: **Team-based working as a predictor of safety at work**

Outcome	No prior control % staff in real teams	With prior control % staff in real teams
% staff suffering from work-related injuries	-.129*	-.060
% staff suffering from work-related stress	-.599**	-.385**
% staff witnessing errors that could affect patients	-.087	-.063
% staff witnessing errors that could affect staff	-.252**	-.129
% staff experiencing violence from patients	-.114	-.028
% staff experiencing violence from work colleagues	-.120	-.077
% staff experiencing harassment, bullying and abuse from patients	-.137*	-.111
% staff experiencing harassment, bullying and abuse from work colleagues	-.542**	-.406**

*Note: * indicates p < .05; ** indicates p < .01*

It can be seen that the percentage of staff working in real teams is strongly related to outcomes such as work-related stress and harassment, bullying and abuse from colleagues, even when the conservative control of prior levels of these variables are included. This variable is also related to work-related injury, errors affecting staff and harassment, bullying and abuse from patients or their relatives. Overall, this shows that the more staff working in real teams, and the fewer in pseudo teams across trusts, the safer the environment for both staff and patients.

Table 2.5 shows the effect of the **change in percentage staff working in real teams** on these outcomes, with and without prior versions of the outcomes included as control variables. Figures shown are standardised regression (beta) coefficients, not only for the change variable, but also the prior level to enable more accurate interpretation of the change score.

Table 2.5: **Change in team-based working as a predictor of safety at work**

	No prior control		With prior control	
Outcome	% change	2005 level	% change	2005 level
% staff suffering from work-related injuries	-.057	-.128*	-.068*	-.028
% staff suffering from work-related stress	-.291**	-.556**	-.242**	-.424**
% staff witnessing errors that could affect patients	-.060	-.055	-.070*	-.043
% staff witnessing errors that could affect staff	-.115**	-.244**	-.104*	-.142*
% staff experiencing violence from patients	-.018	-.057*	-.019	-.046
% staff experiencing violence from work colleagues	-.094	-.062	-.099	-.043
% staff experiencing harassment, bullying and abuse from patients	-.081*	-.107	-.101**	-.060
% staff experiencing harassment, bullying and abuse from work colleagues	-.257**	-.511**	-.221**	-.367**

*Note: * indicates p < .05; ** indicates p < .01*

It can be seen that the effects of real team-based working on stress, errors affecting staff, and bullying/harassment/abuse from both staff and patients are related to the change in the level of team working. Taken together with the results on the right-hand side of the table, which suggest this is true even when controlling for prior levels of the outcome, it would suggest that these effects are more likely to be causal in nature – i.e. a higher level of team-based working results in a safer environment. It is impossible to say this for sure, but by including this longitudinal analysis, many possible other explanations for the relationships (e.g. reverse causality) are removed.

2.3.2 Team-based working as a predictor of trust performance

We have said earlier that an implicit aim of team-based working is that individuals should work closely, inter-dependently, and supportively to achieve the team's goals and objectives, and that this should lead to better performance in terms of individuals suffering less stress, experiencing less violence and harassment and witnessing less errors. This should result in a more positive working environment for staff members which should than be translated into a more positive experience for patients accessing healthcare. A more coordinated approach, facilitated by structured teamwork, to providing health should also result in patients being seen quicker and thus lower waiting times for patients. Across an organisation this more coordinated approach

should result in better utilisation of resources As such, in the next section we examine whether team-based work is related to various measures of trust performance.

Team based working as a predictor of trust performance

If the respondent answers 'yes' to all three questions:

a) Does the team have clear objectives
b) Do team members work closely to achieve the team's objectives
c) Do team members met regularly to discuss its effectiveness and how it could be improved

they were classified as working in a 'real team'. If they answered, 'no' to any of the three questions above they were classified as working in a 'pseudo team'.

These were aggregated to the organisational (trust) level by taking the proportion of staff working in real teams and pseudo teams within each. To look at the increase in team working, the difference between the proportion working in real teams in the trust between 2006 and 2005 was taken.

Patient satisfaction

Patient mortality

Waiting times

Annual Health Check

- use of resources
- quality of services

Table 2.6 shows the effect of percentage staff working in real teams on the outcomes; and the same with prior measures of the outcomes included as control variables. Figures shown in the table are standardised regression (beta) coefficients.

Table 2.6: **Team-based working as a predictor of trust performance**

Outcome	No prior control % staff in real teams	With prior control % staff in real teams
Patient satisfaction	.102	.061
Patient mortality	.042	.022
Waiting times	.104	.006
Annual Health Check: Use of resources	.438**	.066
Annual Health Check: Quality of services	.477**	.203**

*Note: * indicates p < .05; ** indicates p < .01*

It can be seen that there does not appear to be a direct relationship between team-based working and outcomes such as patient satisfaction, patient mortality and inpatient admission waiting times. Nevertheless, there are significant relationships between team-based working and annual health check results: the more team working

in the organisation, the better the health check results. This even holds for the 'Quality of services' rating when prior Annual Health Check results are included. The size of the relationships are moderate to strong, suggesting this may be an important factor.

Table 2.7: **Changes in team-based working as a predictor of organisational performance**

	With prior control		No prior control	
Outcome	% change	2005 level	% change	2005 level
Patient satisfaction	.072	.110	.033	.074
Patient mortality	.057	.019	.044	-.004
Waiting times	.087	.100	.015	-.002
Annual Health Check: Use of resources	.189**	.445**	.013	.098
Annual Health Check: Quality of services	.172**	.531**	.024	.324**

*Note: * indicates p < .05; ** indicates p < .01*

Table 2.7 shows the effect of the **change in percentage staff working in real teams** on these outcomes, with and without prior versions of the outcomes included as control variables. Figures shown are standardised regression (beta) coefficients, not only for the change variable, but also for the prior level to enable more accurate interpretation of the change score. It can be seen that there does not appear to be a direct relationship between the change in team-based working levels and outcomes such as patient satisfaction, patient mortality and inpatient admission waiting times. However, there is again a significant relationship with the Annual Health Check outcomes: over and above the effect of team-based working on Annual Health Check scores, the change from one year to the next is associated positively with a change in both Annual Health Check scores. This is more fairly strong evidence for the importance of team-based working on trust outcomes.

2.3.3 Organisational factors as predictors of team-based working

Table 2.8 shows the effect of the four organisational context factors – organisational climate, support from immediate managers, support for work-life balance and quality of job design. The analysis is conducted twice: firstly with only the organisational context factors entered in the regression equation; and secondly with the organisational context factors and prior levels of team-based working also included in the regression equation.

Table 2.8: **Organisational factors as predictors of team-based working**

	1.	2.	3.	4.	5.
Organisational climate	.542**				.307**
Support from immediate managers		.435**			.130
Support for work-life balance			.322**		-.172
Quality of job design				.518**	.309**
ΔR^2	.221	.181	.091	.252	.280
Prior level of team-based working	.330**	.357**	.413**	.304**	.287**
Organisational climate	.409**				.255*
Support from immediate managers		.317**			.113
Support for work-life balance			.209**		-.158
Quality of job design				.398**	.235*
ΔR^2	.109	.084	.036	.124	.145

Note: ΔR^2 refers to change in R^2 due to HR variables

It can be seen that all factors are significantly related to subsequent levels of team-based working, even when prior levels of team-based working are included as a control variable. This suggests there is an important link between climate, leadership, HR support and real team working. This is not necessarily very surprising, and it is difficult to claim a causal relationship given the data available, but it is notable that organisational climate and quality of job design are the most strongly related variables – these have significant, independent effects even when all predictors are studied simultaneously and when prior levels of team-based working are controlled for.

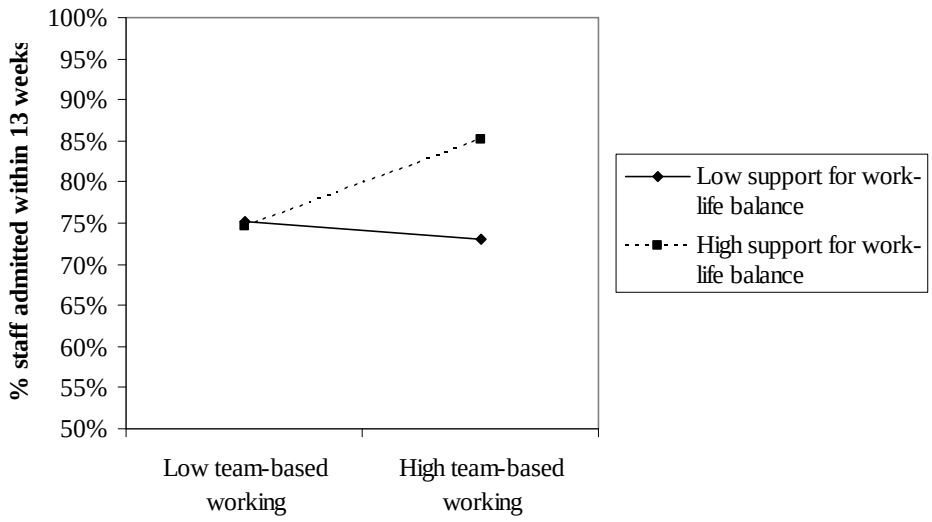
2.3.4 Organisational factors and team-based working interacting to predict safety at work

The interactive effects between organisational factors and team-based working were tested by a series of moderated multiple regressions, involving each of the four HR variables in turn moderating the effect of team-based working on each of the eight safety at work variables. Thus 32 separate regression analyses were run; full results are not reported here for the sake of clarity, but none of the interactions was significant. This implies that the relationship between team-based working and safety at work is a fairly constant one that is **not** dependent on other kinds of HR support or leadership.

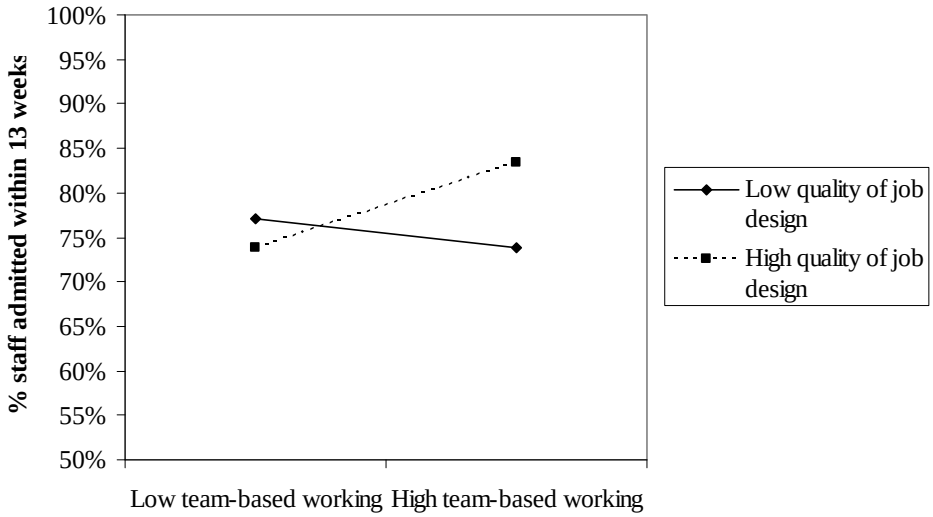
2.3.5 Organisational factors and team-based working interacting to predict trust performance

The interactive effects between organisational factors and team-based working were tested by a series of moderated multiple regressions, involving each of the four HR variables in turn moderating the effect of team-based working on each of the five organisational performance variables. Thus 20 separate regression analyses were run; full results are not reported here for the sake of clarity, but the significant results are summarised as follows:

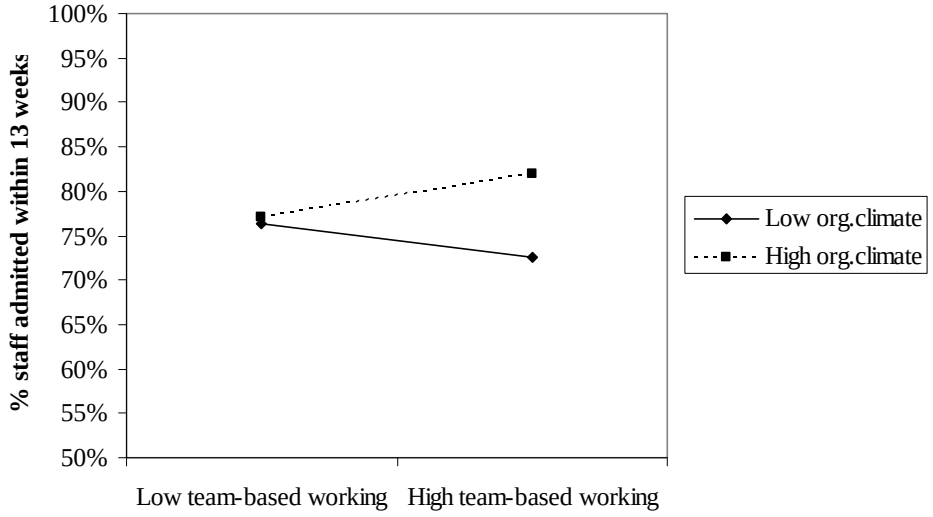
a) A combination of high support for work-life balance and a higher percentage of staff working in real teams was associated with a higher percentage of patients being admitted within 13 weeks of referral. This is indicated in the following chart, which shows that the relationship between team-based working and successfully meeting waiting time targets is stronger when there is more support for work-life balance.



b) A combination of more clear defined jobs and a higher percentage of staff working in real teams was associated with a higher percentage of patients being admitted within 13 weeks of referral. This is indicated in the following chart, which shows that the relationship between team-based working and successfully meeting waiting time targets is stronger when jobs are better designed.



c) A combination of more supportive climate across the trust and a higher percentage of staff working in real teams was associated with a higher percentage of patients being admitted within 13 weeks of referral. This is indicated in the following chart, which shows that the relationship between team-based working and successfully meeting waiting time targets is stronger when the climate is good.



Taken together, the above results suggest that team-based working may have an impact on relatively distant outcomes such as patient waiting times – but only when there is support from the organisation at large in terms of overall culture or climate, and concern for individuals' jobs and well-being in terms of supporting a healthy work-life balance and well-designed jobs to help individuals to flourish within their teams.

2.4 Summary

The results presented in this chapter would suggest that, across NHS Trusts, a higher proportion of staff working in well-structured 'real' teams was associated with lower levels of errors and near misses, work-related injuries and stress, and instances of harassment and bullying within these organisations. Furthermore, across NHS Trusts where there was a year-on-year increase in the numbers of staff working in structured teams, this was also associated with lower levels of errors and near misses, work-related injuries and stress, and instances of harassment and bullying within these organisations.

There are also significant implications for NHS Trusts at a corporate level of having high number of staff working in poorly structured and poorly functioning 'pseudo teams'. Our research showed that NHS Trusts which had a higher proportion of staff working in well structured 'real' teams (and thus a lower proportion of staff in poorly structured teams) reported significantly better Trust level outcomes. The data also showed that NHS Trusts which displayed an *increase* year-on-year of staff working in well structured 'real' teams also performed better on Trust level outcomes. Specifically, these trusts were rated as being more effective on measures of financial management, and how effective they were at meeting the Department of Health's core standards, existing national standards and new national targets. Part of this could relate to having more structured team-based working resulting in patient care being provided in a more coordinated manner, and generally staff being focused towards clear aims and objectives. This would be consistent with the findings presented in Chapter Five.

The results presented in this chapter would also suggest that, across NHS Trusts, where there is a climate which promotes clear communication channels between management and staff, and where staff are involved in decision-making, then it is more likely that staff members will also work in structured 'real' teams. Teams can often be used a mechanism to cascaded down from executive management, through the management levels to team leaders who are then responsible for briefing team members, and also as a mechanism for staff involvement and the 'bottom-up' flow of

information. Critical to this is the role of middle managers and team leaders – again, this would be consistent with the results presented in this chapter, and would also be consistent with the findings presented in Chapter Five.

3 TEAM-BASED WORKING AND STAFF WELL-BEING

In this chapter, we use the data collected from the national NHS staff surveys to examine the relationship between team-based working and staff well-being, and also which aspects of team-based working are most important in these relationships. We use this analysis to address research objective one.

3.1 Key Findings

Our analysis identified that there was a strong association between staff members who reported working in a 'real team' and more positive outcomes. Staff members who worked in a 'real team' were:

- Less likely to have suffered work related injuries
- Less likely to have suffered work related stress
- Less likely to have experienced physical violence involving work colleagues
- Less likely to have experienced harassment involving work colleagues
- More likely to report they were satisfied with their job

Working in a 'pseudo team' where:

- team members work closely with each other, but where the team does not have clear team objectives or meet regularly, was associated with higher levels work-related injuries and stress, errors and near misses, and violence and harassment
- team members do not meet regularly (but do work closely together and with clear objectives) was associated with higher levels of work-related injuries and violence and harassment from patients
- team members do not clear objectives (but do work closely together and meet regularly) was associated with higher levels of work-related stress, errors and incidents, and violence and harassment from work colleagues

3.2 Research Methods

3.2.1 Sample details

Details of the sample can be found in **Chapter 2 section 2.2.1**.

3.2.2 Measures

Team-based working

The respondents were asked whether they worked in a team. If a respondent gave the answer 'no', they were classified as not working in a team (8.5% of respondents were in this category). If a respondent gave the answer 'yes', they were assigned into one of two further groups basing on the answers to the following three questions:

a) Whether the team they worked in had clear objectives;
b) Whether they had to work closely with other team members to achieve the team's objectives; and
c) Whether the team met regularly to discuss its effectiveness and how it could be improved.

If the respondents answered 'yes' to all three questions above, they were classified as working in a 'real team' (55.6% of respondents were in this category). If they answered, 'no' to any of the three questions above they were initially classified as working in a 'pseudo team' (35.9% of respondents were in this category).

Secondly, we re-calculated the responses for the 'pseudo team' group into three categories according to whether respondents worked in a 'pseudo team' which was missing:

- all three of the criteria of a 'real team' (4.0% of respondents were in this category)
- any two of the criteria of a 'real team' (8.2% of respondents were in this category)
- only one of the criteria of a 'real team' (23.8% of respondents were in this category)

Finally, we then re-calculated responses the 'pseudo team' group responses into seven categories according to whether respondents worked in a 'pseudo team' which was:

- missing all three of the criteria ('No' to questions a, b and c above) (4.0% of respondents were in this category)
- missing two of the criteria: Answering 'Yes' to question a only ('No' to questions b and c) (2.3% of respondents were in this category)
- missing two of the criteria: Answering 'Yes' to question b only ('No' to questions a and b) (4.4% of respondents were in this category)
- missing two of the criteria: Answering 'Yes' to question c only ('No' to questions a and b) (1.5% of respondents were in this category)
- missing one of the criteria: Answering 'Yes' to questions a and b ('No' to question c only) (17.6% of respondents were in this category)
- missing one of the criteria: Answering 'Yes' to questions a and c ('No' to question b only) (3.1% of respondents were in this category)
- missing one of the criteria: Answering 'Yes' to question b and c ('No' to question a only) (3.2% of respondents were in this category)

Staff well-being

Staff well-being was measured via two sets of variables:

i) Safety at work variables

Seven dichotomous variables were used from the NHS staff survey to assess individuals' experiences of safety at work, including whether the respondents had:

- Suffered work-related injury
- Suffered work-related stress
- Witnessed errors, near misses, or incidents that could hurt staff or patients
- Experienced physical violence from patients / service users
- Experienced physical violence from other work colleagues
- Experienced harassment, bullying or abuse from patients / service users
- Experienced harassment, bullying or abuse from other work colleagues

Details of the safety at work variables can be found in **Chapter 2 section 2.2.2**.

ii) Psychological well-being variables

- Job satisfaction: This was measured using a seven item scale, adapted from the Warr, Cook and Wall (1980) job satisfaction scale. Responses were on a one-to-five point Likert scale, ranging from "Very dissatisfied" to "Very satisfied". An example item was "How satisfied are you with the amount of responsibility you are given?". Cronbach's alpha (0.87) showed good internal consistency reliability.
- Work pressure: Four items were used to measure work pressure. Responses were on a five-point scale, ranging from "Strongly disagree" to "Strongly agree". An example item was "I cannot meet all the conflicting demands on my time at work". Cronbach's alpha (0.85) showed good internal consistency reliability.
- Intention to leave: Employees were asked the extent to which they agreed with three statements on a five-point scale, ranging from "Strongly disagree" to "Strongly agree". An example item was: "I often think about leaving this trust". Cronbach's alpha (0.92) showed good internal consistency reliability.

3.2.3 Preliminary data analysis

Before testing the effects of team based working on safety at work and psychological well-being, we tested to see whether any background variables collected as part of the national NHS staff survey were associated with variations in team-based working and the outcome variables (safety at work and psychological well-being). The following background variables were tested:

- Age (aged 16-30, 31-40, 41-50 or 51 and over)
- Gender (Male or Female)
- Ethnic background (White or Black and Minority Ethnic)
- Organisational tenure (less than 1 year, between 1-2 years, 3-5 years, 6-10 years, 11-15 years, or 15+ years)
- Line management responsibility (Yes or No)
- Disability status (suffering from a long term illness or disability) (Yes or No)
- Contracted hours (full-time or part-time)
- Shift working (Yes or No)

- Occupational group (Administrative and clerical, allied health professional, medical, central functions, ancillary, nursing, social care, ambulance staff, general management and other)

We also tested for effects according to the Strategic Health Authority and type of trust (acute, primary care, mental health / learning disability and ambulance) where the respondent worked.

There were significant differences on whether respondents worked in a 'real team' and across all of the outcome variables according to the age of the respondents – table 3.1 shows that younger staff were typically more likely to have suffered work-related injuries, witnessed errors, and to have experienced violence, bullying and abuse from patients; conversely, they were less likely to have suffered work-related stress.

Table 3.1: **Age range, team-based working, safety at work and psychological well-being**

	Aged 16-30	Aged 31-40	Aged 41-50	Aged 51 and over	F
% in sample	15.1	24.9	32.5	27.5	
% working in a 'real team'	54.5	56.1	57.1	54.1	26.815*
% staff suffering work-related injuries	19.7	15.5	15.1	15.0	81.069*
% staff suffering work-related stress	29.6	31.1	34.3	32.5	52.797*
% staff witnessing errors and incidents	43.1	37.4	34.7	26.8	547.566*
% staff experiencing physical violence from patients	15.6	14.0	12.1	9.1	205.975*
% staff experiencing physical violence from work colleagues	0.8	1.3	1.1	1.0	8.188*
% staff experiencing harassment, bullying and abuse from patients	30.0	29.1	27.4	22.7	159.334*
% staff experiencing harassment, bullying and abuse from work colleagues	15.5	17.4	17.6	15.3	33.075*
Staff job satisfaction	3.39	3.42	3.43	3.48	71.475*
Work pressure felt by staff	3.05	3.16	3.23	3.12	208.562*
Staff intention to leave	2.90	2.79	2.73	2.47	826.843*

*Note: * indicates $p < .05$*

There were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to the gender of the respondents – table 3.2 shows that males were more likely to have suffered work-related injuries, witnessed errors, and also to have experienced physical violence from both patients and other work colleagues, and harassment, bullying and abuse from patients. This may reflect the type of roles that male staff members are typically employed in within the NHS. There were significant differences on whether respondents worked in a 'real team' and across all of the outcome variables according to the ethnic background of the respondents – table 3.2 shows that Black and Minority Ethnic (BME) staff were more likely to report working in a 'real team'. BME staff were also much more likely to have experienced violence, bullying and abuse from patients, and also to have suffered work-related injuries.

Table 3.2: **Gender, ethnicity, team-based working, safety at work and psychological well-being**

	Male	Female	F	White	BME	F
% in sample	21.2	78.8		86.4	13.6	
% working in a 'real team'	53.6	56.2	57.707*	54.9	60.4	177.374*
% staff suffering work-related injuries	17.2	15.6	42.739*	15.5	17.7	52.708*
% staff suffering work-related stress	30.3	32.9	64.473*	32.3	32.0	0.723
% staff witnessing errors and incidents	39.6	33.1	394.626*	34.3	35.0	3.049
% staff experiencing physical violence from patients	16.4	11.2	511.545*	12.2	13.2	13.468*
% staff experiencing physical violence from work colleagues	1.7	0.9	137.304*	0.8	2.7	486.102*
% staff experiencing harassment, bullying and abuse from patients	27.7	26.7	11.132*	27.0	26.4	2.128*
% staff experiencing harassment, bullying and abuse from work colleagues	16.5	16.6	0.095	15.9	20.3	198.107*
Staff job satisfaction	3.40	3.44	73.896*	3.43	3.44	3.074
Work pressure felt by staff	3.19	3.14	76.726*	3.19	2.91	1542.499*
Staff intention to leave	2.74	2.69	40.063*	2.70	2.67	12.734*

*Note: * indicates $p < .05$*

Table 3.3: **Tenure, team-based working, safety at work and psychological well-being**

	Less than 1 year	1-2 years	3-5 years	6-10 years	11-15 years	15+ years	F
% in sample	6.9	15.4	24.1	19.1	10.8	23.6	
% working in a 'real team'	58.4	56.3	55.4	54.3	54.7	56.2	11.365*
% staff suffering work-related injuries	12.4	16.1	16.8	17.0	15.3	15.2	27.513*
% staff suffering work-related stress	19.3	27.7	31.9	34.8	35.1	36.2	238.616*
% staff witnessing errors and incidents	33.1	33.5	34.3	36.1	34.3	34.6	9.059*
% staff experiencing physical violence from patients	9.3	11.2	12.3	13.7	12.0	12.9	29.868*
% staff experiencing physical violence from work colleagues	0.7	0.9	1.2	1.2	1.0	1.1	4.622*
% staff experiencing harassment, bullying and abuse from patients	20.6	24.0	26.6	29.3	27.6	28.8	77.506*
% staff experiencing harassment, bullying and abuse from work colleagues	12.6	16.0	17.5	17.7	16.7	16.1	29.798*
Staff job satisfaction	3.58	3.47	3.42	3.38	3.41	3.43	119.930*
Work pressure felt by staff	2.88	3.02	3.11	3.21	3.25	3.27	456.282*
Staff intention to leave	2.50	2.72	2.80	2.78	2.71	2.58	208.824*

*Note: * indicates $p < .05$*

There were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to the length of time respondents had spent at the trust in which they worked. Table 3.3 shows that staff who had joined their trust relatively recently were more likely to say they worked in a 'real team', and were less likely to have suffered work-related injuries or stress, or to have experienced physical violence from patients, or harassment from either patients or other work colleagues. There were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to whether respondents had line management responsibilities at the trust. Table 3.4 shows that line managers were more likely to work in a 'real team', and were also more likely to have suffered work-related stress, or to have experienced physical violence from patients, or to have experienced harassment and abuse from patients or other work colleagues; conversely, line managers were less likely to have suffered work-related injuries.

Table 3.4: **Management responsibility, disability, team-based working, safety at work and psychological well-being**

	Line Mgr	Non-Line Mgr	F	Disabled	Non-disabled	F
% in sample	32.5	67.5		4.4	95.6	
% working in a 'real team'	66.3	50.4	2809.465*	50.0	55.9	78.812*
% staff suffering work-related injuries	13.2	17.1	310.523*	31.2	15.2	1012.951*
% staff suffering work-related stress	37.4	29.9	695.614*	52.0	31.4	1023.192*
% staff witnessing errors and incidents	42.0	31.0	1487.476*	40.9	34.2	103.408*
% staff experiencing physical violence from patients	13.7	11.6	117.912*	16.1	12.1	77.209*
% staff experiencing physical violence from work colleagues	1.0	1.1	0.006	2.7	1.0	140.396*
% staff experiencing harassment, bullying and abuse from patients	30.7	25.1	441.844*	33.7	26.6	132.886*
% staff experiencing harassment, bullying and abuse from work colleagues	18.5	15.7	160.211*	28.5	16.0	594.642*
Staff job satisfaction	3.50	3.40	558.647*	3.22	3.44	505.440*
Work pressure felt by staff	3.43	3.02	6438.877*	3.31	3.15	186.416*
Staff intention to leave	2.69	2.71	6.537*	2.92	2.69	249.671*

*Note: * indicates p < .05*

There were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to whether respondents reported that they suffered from a long standing illness or a disability. Table 3.4 shows that disabled respondents were less likely to say they worked in a 'real team', but were substantially more likely to have suffered work-related injuries and stress, witnessed errors and incidents, and to have experienced violence, bullying and abuse from both patients and other work colleagues. There were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to the contracted hours of the respondents. Table 3.5 shows that full-time staff were more likely to say they worked in a 'real team', and were also more likely to say they had suffered work-related injuries and stress, witnessed errors and incidents, and to have experienced violence, bullying and abuse from patients and other work colleagues.

Table 3.5: **Working hours, shift working, team-based working, safety at work and psychological well-being**

	Part time	Full time	F	Non-Shifts	Shifts	F
% in sample	24.2	75.8		56.6	43.4	
% working in a 'real team'	52.6	55.6	144.768*	58.0	52.7	345.118*
% staff suffering work-related injuries	13.6	16.7	164.498*	11.5	21.7	2419.987*
% staff suffering work-related stress	25.8	34.5	799.850*	31.2	33.9	102.603*
% staff witnessing errors and incidents	25.8	37.4	1383.020*	25.9	45.9	5684.392
% staff experiencing physical violence from patients	7.6	13.8	832.145*	3.9	23.4	11905.951*
% staff experiencing physical violence from work colleagues	0.6	1.2	82.397*	0.7	1.6	259.003*
% staff experiencing harassment, bullying and abuse from patients	21.8	28.7	545.622*	18.6	37.9	6073.519*
% staff experiencing harassment, bullying and abuse from work colleagues	12.3	18.0	536.397*	14.9	18.8	338.130*
Staff job satisfaction	3.46	3.42	89.630*	3.50	3.35	1298.137*
Work pressure felt by staff	3.05	3.19	618.330*	3.14	3.17	36.005*
Staff intention to leave	2.61	2.73	308.632*	2.71	2.70	2.680

*Note: * indicates p < .05*

There were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to whether respondents worked shifts. Table 3.5 shows that where respondents worked shifts they were less likely to say they worked in a 'real team', but were also more likely to say they had suffered work-related injuries and stress, witnessed errors and incidents, and to have experienced violence, bullying and abuse from both patients and other work colleagues.

There were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to the occupational group of the respondents. Table 3.6 shows that clinical staff (e.g. allied health professionals, medical and nursing staff) and those in management roles were amongst the most likely to say they worked in a 'real team'. Ambulance staff were the most likely to say they had suffered work-related injuries (followed by ancillary and nursing staff); staff in support and management roles were the least likely to have suffered work-related injuries. Work-related stress was highest amongst nursing staff, but comparatively low amongst medical and ancillary staff. However, medical staff, along with nursing and ambulance staff were the most likely to have witnessed errors. Ambulance staff were the mostly likely to have experienced violence, bullying and abuse from patients. Other clinical staff (such as nurses, doctors and allied health professional) also reported high levels of violence, bullying and abuse from patients. Ambulance and ancillary staff also reported higher levels of physical violence from work colleagues, while harassment and abuse from work colleagues was comparatively high amongst ambulance staff, nursing staff and management.

There were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to the strategic health authority (SHA) where respondents worked. Table 3.7 shows that respondents from the London SHA were more likely to work in a 'real team', but were also more likely to report having suffered work-related stress, or to have experienced violence, bullying and abuse from other work colleagues; conversely, London-based staff were less likely to have experienced violence, bullying and abuse from patients. Staff in the South West SHA were more likely to have suffered work-related injuries, and also to have experienced violence, bullying and harassment from work colleagues.

Table 3.6: **Occupational group, team-based working, safety at work and psychological well-being**

	Admin & clerical	AHPs	Medical	Central functions	Ancillary	Nursing	Social care	Ambulance	General Mgt	Other	F
% in sample	19.0	17.1	6.3	4.1	4.6	37.7	0.9	3.0	2.2	5.2	
% working in a 'real team'	48.7	62.4	64.5	59.1	34.6	59.0	69.7	16.5	64.0	54.8	78.812*
% staff suffering work-related injuries	11.2	15.2	13.1	5.9	20.6	18.3	10.2	41.3	4.5	17.0	367.909*
% staff suffering work-related stress	30.0	32.9	23.9	30.5	22.3	36.0	34.4	33.5	34.8	30.4	101.864*
% staff witnessing errors and incidents	18.2	39.1	49.1	13.7	24.4	42.4	29.3	45.3	23.4	27.5	803.763*
% staff experiencing physical violence from patients	1.5	6.9	7.4	0.6	5.0	22.3	22.0	32.9	1.7	9.7	1287.739*
% staff experiencing physical violence from work colleagues	0.7	0.6	0.7	0.4	2.2	1.4	1.0	1.9	0.6	9.7	32.036*
% staff experiencing harassment, bullying and abuse from patients	17.5	21.3	27.1	5.1	9.2	38.5	24.8	54.4	12.3	19.0	1047.457*
% staff experiencing harassment, bullying and abuse from work colleagues	15.1	14.8	15.0	14.3	14.3	18.5	16.2	19.4	18.9	17.8	34.695*
Staff job satisfaction	3.44	3.45	3.51	3.60	3.40	3.39	3.49	3.11	3.68	3.46	181.350*
Work pressure felt by staff	2.97	3.22	3.24	3.26	2.96	3.22	3.04	3.07	3.40	3.05	257.051*
Staff intention to leave	2.78	2.69	2.47	2.85	2.54	2.72	2.73	2.52	2.87	2.68	104.974*

Table 3.7: **Strategic health authority, team-based working, safety at work and psychological well-being**

	East Midlands	East of England	London	North East	North West	South East	South West	West Midlands	South Central	F
% in sample	5.5	8.9	20.1	15.8	15.3	6.3	10.6	11.5	5.9	
% working in a 'real team'	51.6	55.8	59.1	55.8	55.8	53.9	52.7	54.1	56.0	29.687*
% staff suffering work-related injuries	16.6	15.6	15.2	15.6	14.5	17.5	17.8	16.7	16.3	12.475*
% staff suffering work-related stress	32.8	30.7	33.7	32.1	32.6	31.1	32.1	32.4	30.7	6.573*
% staff witnessing errors and incidents	34.9	37.7	33.2	31.7	34.9	35.8	37.1	33.8	35.2	24.148*
% staff experiencing physical violence from patients	14.5	13.8	9.1	13.2	11.7	12.8	14.8	12.6	12.5	49.959*
% staff experiencing physical violence from work colleagues	0.9	1.0	1.6	0.7	0.8	1.4	1.0	1.1	1.3	13.385*
% staff experiencing harassment, bullying and abuse from patients	28.0	28.8	25.3	26.2	26.0	27.8	29.7	27.5	25.9	16.511*
% staff experiencing harassment, bullying and abuse from work colleagues	15.7	16.6	17.9	15.5	16.2	17.5	17.1	16.3	15.9	8.238*
Staff job satisfaction	3.40	3.43	3.45	3.43	3.44	3.42	3.42	3.42	3.45	6.519*
Work pressure felt by staff	3.16	3.14	3.15	3.11	3.15	3.16	3.20	3.17	3.15	13.036*
Staff intention to leave	2.70	2.67	2.79	2.67	2.68	2.66	2.65	2.71	2.69	27.752*

Finally, there were significant differences in whether respondents worked in a 'real team' and across all of the outcome variables according to trust type. Table 3.8 shows that staff in primary care and mental health / learning disability trusts (referred to as mental health trusts from this point onwards) were the most likely, and staff in ambulance trusts the least likely, to work in a 'real team'. Staff employed in ambulance trusts reported the highest levels of work-related injuries, errors and incidents, and violence, bullying and abuse from both patients and staff.

Table 3.8: **Trust type, team-based working, safety at work and psychological well-being**

	Acute	Primary Care	Mental Health / Learning Disability	Ambulance	F
% in sample	54.1	23.9	18.4	3.5	
% working in a 'real team'	52.7	63.0	63.0	19.7	1191.077*
% staff suffering work-related injuries	18.4	11.6	10.1	36.7	942.300*
% staff suffering work-related stress	31.6	32.7	33.9	32.7	15.311*
% staff witnessing errors and incidents	39.8	24.7	30.4	41.2	818.831*
% staff experiencing physical violence from patients	10.8	5.9	21.9	28.5	1495.809*
% staff experiencing physical violence from work colleagues	1.2	0.7	1.1	1.9	22.666*
% staff experiencing harassment, bullying and abuse from patients	26.0	20.9	33.3	48.3	713.742*
% staff experiencing harassment, bullying and abuse from work colleagues	17.7	14.4	15.8	19.2	65.398*
Staff job satisfaction	3.39	3.53	3.49	3.16	524.071*
Work pressure felt by staff	3.16	3.18	3.12	3.08	38.472*
Staff intention to leave	2.71	2.72	2.68	2.56	35.880*

*Note: * indicates $p < .05$*

Overall, the preliminary analysis shows the potential impact of a range of background details on the outcome variables (safety at work and psychological well-being) used in the main data analysis. Hence, these background details were used as control measures in the subsequent analysis.

3.2.4 Main data analysis

We used self-report data in this study which, although of less certain validity, still serves a critically important role in understanding attitudes, experiences, psychological well-being, and behaviours. More importantly, it is worth noting that incident reporting and documentation of near-misses are described as useful sources of information in medical error and clinical risk management. Self-reported data is encouraged in the field of adverse events research, such as medical error research.

To analyse the safety at work data we used binary logistic regression to predict the outcome variables (work-related injuries and stress, errors and incidents and violence, bullying and harassment) as these are all categorical variables. We included all of the background variables identified in section 3.2.3 (i.e. age, gender, ethnic background, tenure, line management responsibility, disability status, contracted hours, shift working, occupational group, region and type of trust), and also the different measures of team-based working identified in section 3.2.1. We also included a measure of organisational climate (see section 2.2.2 for more details of the measure) as a co-variant in the analysis in an effort to reduce the impact of single source common method variance in explaining the results. We used binary logistic regression to calculate odds ratios (ORs) to assess the degree of difference between two comparison groups. Because of the large sample size used in this study we used two criteria when interpreting the odds ratios: a) whether the odds ratios were significant to conventional levels ($P < .05$) and b) the size of the odds ratio.

An odds ratio of 1 would indicate that there was no difference between the two comparison groups, while an odds ratio of less than 1 means that respondents in the comparison groups (i.e. 'pseudo teams') were less likely, or an odds ratio of more than 1 means that respondents in the comparison group (i.e. 'pseudo teams') were more likely to have suffered work-related injuries or stress, witnessed errors and incidents, or experienced violence, bullying and harassment. With the large sample size used in the analysis it could mean that even relatively small relationships could be displayed as being significant, so when interpreting the relationships we used a conservative

estimate of an odds ratio being meaningful if it was less than 0.7 (to represent it being 'less likely') and above 1.3 (to represent it being 'more likely').

For the psychological well-being variables (job satisfaction, work pressure and intention to leave) we used hierarchical multiple regression analysis as these were all measured on five-point Likert scales, and all approximated well to a normal distribution. Again, in this analysis we included all of the background variables identified in section 3.2.3 (i.e. age, gender, ethnic background, tenure, line management responsibility, disability status, contracted hours, shift working, occupational group, region and type of trust), and also the different measures of team-based working identified in section 3.2.1. From this we present the standardised beta coefficients to illustrate the size of the relationships. We interpret a standardised beta coefficient of less than 0.3 as a 'weak' relationship, 0.3 to 0.5 as a 'moderate' relationship and 0.5 or above as a 'strong' relationship.

The analysis reported in the next section examined the responses of all NHS staff in each of the NHS Trusts which participated in the National NHS Staff Survey. In additional to 'all NHS Staff' further analysis was conducted to examine whether there were any differences in the pattern of results for 'all NHS Staff' by looking at responses from acute, ambulance, primary care and mental health trusts separately, and also by looking at the responses of only clinical staff (e.g. those who have contact with patients such as doctors, nurses and allied health professionals).

3.3 Results and summaries

3.3.1 Team-based working as a predictor of safety at work

An implicit aim of team-based working is that individuals should work closely, inter-dependently, and supportively to achieve the team's goals and objectives. Working in this fashion should lead to reduced workload, reduced time pressures and a sense that there are sufficient resources to do the job because individuals can call upon others for help and assistance in achieving the team's goals and objectives. Team members should then feel less stressed. It should also lead to a more supportive working environment where incidents of violence, bullying and harassment are minimised, as colleagues are more vigilant of the work environment. It is also likely that 'real' teams will have lower error rates (involving both patients and staff members), and thus there will be fewer work-related injuries. This is because structured teams have more clearly defined roles and objectives, meet regularly and are reflective on things which have not gone well before and amended workplace behaviours accordingly. As such, in the next section we examine whether team-based work is related to various measures of safety at work.

Team-based working as a predictor of safety at work

If the respondents answer 'yes' to all three questions:

- Does the team have clear objectives
- Do team members work closely to achieve the team's objectives
- Do team members met regularly to discuss its effectiveness and how it could be improved

they were classified as working in a 'real team'. If they answered, 'no' to any of the three questions above they were classified as working in a 'pseudo team'.

→ Suffered work-related injuries

→ Suffered work-related stress

→ Witnessed errors and incidents

→ Experienced physical violence from patients or work colleagues

→ Experienced harassment, bullying, or abuse from patients or work colleagues

Table 3.9 shows that, for all staff in the NHS, respondents working in a 'pseudo team' were significantly more likely to report worse outcomes on the safety at work variables than for those working in a 'real team' or 'not in a team'. Firstly, **table 3.9** shows that respondents working in 'pseudo team' were significantly more likely to report having suffered work-related injuries (odds ratio 1.329 and 1.355 respectively) or stress (1.363 and 1.307 respectively). **Tables a2.1 and a2.4 (appendix 2)** shows that this pattern was consistent amongst clinical staff, and in acute, primary care, and mental health trusts; although, in ambulance trusts, work-related injuries and stress was was lowest for those working in a 'real team'.

Next, **table 3.10** shows that those working in a 'pseudo team' were significantly more likely to report having witnessed errors and incidents (odds ratio 1.103 and 1.249 respectively – although, note the weaker relationships). **Table a2.7 (appendix 2)** shows this pattern was consistent across different trust types and among clinical staff.

Table 3.9 also shows that those working in a 'pseudo team' were significantly more likely than those working in a 'real team' or 'not in a team' to report having experienced physical violence from work colleagues (1.415 and 1.655 respectively); although, the relationships were much weaker for violence involving patients (odds ratio 1.146 and 1.430 respectively). Again, **tables a2.10 and a2.13 (appendix 2)** show this pattern was consistent amongst clinical staff and in acute, primarily care and mental health trusts.

Finally, **table 3.9** shows that those working in a 'pseudo team' were significantly more likely than those working in a 'real team' or 'not in a team' to report having experienced harassment from work colleagues (1.536 and 1.385 respectively); although, the relationships were much weaker for harassment involving patients (odds ratio 1.083 and 1.226 respectively). **Tables a2.16 and a2.19 (appendix 2)** shows that this pattern was consistent amongst clinical staff and in acute, primary care, and mental health trusts; although, in ambulance trusts, harassment was lowest for those working in a 'real team'.

Table 3.9: **Team-based working as a predictor of safety at work factors**

	Suffered work-related injuries		Suffered work-related stress		Witnessed errors and incidents		Experienced physical violence from				Experienced harassment, bullying or abuse from			
							Patients / service users		Work colleagues		Patients / service users		Work colleagues	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Real team														
no team	0.980	0.565	1.044	0.106	0.883	0.000	0.802	0.000	0.855	0.246	0.883	0.000	1.109	0.002
pseudo team	1.329	0.000	1.364	0.000	1.103	0.000	1.146	0.000	1.415	0.000	1.083	0.000	1.536	0.000
Not in a team														
pseudo team	1.355	0.000	1.307	0.000	1.249	0.000	1.430	0.000	1.655	0.000	1.226	0.000	1.385	0.000
real team	1.020	0.565	0.958	0.106	1.132	0.000	1.247	0.000	1.169	0.246	1.132	0.000	0.901	0.002

Note: Exp(B) represents the 'odds ratio' where a higher score indicates respondents in this group are more likely to have suffered work-related injuries or stress, have witnessed errors and incidents, or to have experienced violence or harassment when compared with a comparator group - in the first set of rows the comparator group was 'working in a real team', and in the second set of rows the comparator group was 'not working in a team'.

Overview

This section has shown that those who work in a 'pseudo team' were more likely to report having suffered work-related injuries and stress, or have experienced physical violence or harassment (from other colleagues) than those working in a 'real team', or, indeed, if they do not work in a team at all. This pattern of results was consistent for all staff and among clinical staff, and for staff among acute, primary care and mental health trusts. The exception was ambulance trusts, where work-related injuries and stress, physical violence and harassment were generally lower for those working in a 'real team' when compared against those working in a 'pseudo team' or 'not working in a team', and there were no differences between working in a 'pseudo team' or 'not working in a team'.

Under our definition, a 'real team' is one which meets three criteria: a) the team has clear objectives; b) team members work closely together to achieve these objectives and c) the team meets regularly and reflects on past practice. Where a respondent indicates their team fails to meet any of these criteria, then the team is considered to be a 'pseudo team'. However, this simple 'real team' / 'pseudo team' distinction does not allow for any potential differential effects amongst different types of 'pseudo team' – hence, the next section examined three types of 'pseudo team' – where the team was: i) missing all three of the criteria, ii) missing two of the criteria or iii) missing one of the criteria. **Table 3.10** shows that working in any type of 'pseudo team' was associated with worse outcomes on the safety at work variables than for respondents working in a 'real team'. Specifically, **table 3.10** shows that, respondents working in a 'pseudo team' missing all three, missing two, or missing only one of the criteria were significantly more likely to report having suffered work-related injuries (odds ratio 1.275, 1.426 and 1.307 respectively) or work-related stress (odds ratio 1.559, 1.586 and 1.268 respectively). **Tables a2.2 and a2.5 (appendix 2)** show that this pattern was consistent across different types of trust and amongst clinical staff.

Table 3.10: **Team-based working as a predictor of safety at work factors**

	Suffered work-related injuries		Suffered work-related stress		Witnessed errors and incidents		Experienced physical violence from				Experienced harassment, bullying and abuse from			
							Patients / service users		Work colleagues		Patients / service users		Work colleagues	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Real team														
no team	0.981	0.567	1.046	0.090	0.884	0.000	0.802	0.000	0.868	0.296	0.883	0.000	1.115	0.001
missing 3	1.275	0.000	1.559	0.000	1.145	0.000	1.194	0.000	2.230	0.000	1.067	0.074	2.048	0.000
missing 2	1.426	0.000	1.586	0.000	1.230	0.000	1.108	0.006	1.943	0.000	1.083	0.003	1.908	0.000
missing 1	1.307	0.000	1.268	0.000	1.058	0.001	1.151	0.000	1.091	0.282	1.085	0.000	1.342	0.000
Not in a team														
missing 3	1.300	0.000	1.491	0.000	1.295	0.000	1.489	0.000	2.568	0.000	1.209	0.000	1.837	0.000
missing 2	1.454	0.000	1.516	0.000	1.391	0.000	1.381	0.000	2.237	0.000	1.227	0.000	1.712	0.000
missing 1	1.333	0.000	1.213	0.000	1.197	0.000	1.435	0.000	1.256	0.095	1.229	0.000	1.204	0.000
real team	1.020	0.567	0.956	0.090	1.131	0.000	1.247	0.000	1.151	0.296	1.133	0.000	0.897	0.001

Note: Exp(B) represents the 'odds ratio' where a higher score indicates respondents in this group are more likely to have suffered work-related injuries or stress, have witnessed errors and incidents, or to have experienced violence or harassment when compared with a comparator group - in the first set of rows the comparator group was 'working in a real team', and in the second set of rows the comparator group was 'not working in a team'.

Next, **table 3.10** shows that those working in a 'pseudo team' missing all three, missing two, or missing only one of the criteria of a 'real team' were significantly more likely to report having witnessed errors and incidents (odds ratio 1.145, 1.230 and 1.058 respectively – although, note the weaker relationships). **Table a2.8 (appendix 2)** shows that this pattern of weak relationships was consistent across different trust types and among clinical staff, with the one notable exception of mental health trusts. In these trusts, those working in a 'pseudo team' were significantly more likely to report having witnessed errors and incidents (odds ratio 1.305, 1.437 and 1.246 respectively) than those in 'real teams'.

Table 3.10 also shows that those working in the different types of 'pseudo team' were significantly more likely to report having experienced physical violence work colleagues (odds ratio 2.230, 1.943 and 1.091 respectively – note here the weaker relationship for where only one of the criteria was missing); although, the relationships were much weaker for violence involving patients (odds ratio 1.194, 1.108 and 1.151 respectively). **Table a2.11 and a2.14 (appendix 2)** shows this pattern was consistent in acute, primary care, and mental health trusts, and among clinical staff.

Finally, **table 3.10** shows that those working in a 'pseudo team' missing all three, missing two, or missing only one of the criteria of a 'real team' were significantly more likely to report experiencing harassment from work colleagues (odds ratio 2.048, 1.908 and 1.342 respectively); again the relationships were much weaker for harassment involving patients (odds ratio 1.067, 1.083 and 1.085 respectively). **Table a2.17 and a2.20 (appendix 2)** shows this pattern was consistent amongst clinical staff and across different types of trust, with the one notable exception of ambulance trusts. In these trusts, those working in a 'pseudo team' were significantly more likely to report experiencing harassment from patients (odds ratio 1.530, 1.197n/s and 1.442 respectively) than those in 'real teams'.

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Overview

This section has shown that those who work in any type of 'pseudo team' were generally more likely to report having suffered work-related injuries or stress, or to have experienced physical violence or harassment than those working in a 'real team'. The analysis presented would indicate that the differences between a 'pseudo team' and a 'real team' were largest where all three or any two of the criteria of a 'real team' were missing; although, there were still quite sizable differences between a 'pseudo team' missing one of the criteria and a 'real team'. This pattern of results was (fairly) consistent for all staff and amongst clinical staff, and across different types of trusts.

Next we examined whether there was a particular aspect of working in a 'real team' (i.e. a) have clear objectives; b) work closely together, or c) meet regularly and reflects) was most important.

Work-related injuries: **Table 3.11** shows that, compared with a 'real team', work-related injuries was highest when respondents report working in a 'pseudo team' where teams members work closely with each other (b), but which does not have clear team objectives (missing a), or does not meet regularly to reflect on past practice (missing c) (odds ratio 1.606) – this was actually higher than if the 'pseudo team' does not display any of the real team' criteria (odds ratio 1.287). **Table a2.3 (appendix 2)** shows that this pattern was consistent in acute (1.652), mental health (1.566), and ambulance trusts (1.979), and amongst clinical staff (1.652).

Table 3.11 also shows that, compared with a 'real team', work-related injuries were comparatively high for respondents in a 'pseudo team' which does not meet regularly to reflect on past practice (missing c only) but which displays the other criteria of a 'real team' (odds ratio 1.406). This, compared with a 'real team', was higher than for a 'pseudo team' which does not have clear team objectives (missing a only odds ratio 1.070) or where team members do not work closely with each other (missing b only odds ratio 0.969). **Table a2.3 (appendix 2)** shows that this pattern was consistent in acute (1.443), primary care (1.317), mental health (1.304), and ambulance trusts (1.576), and amongst clinical staff (1.442).

Table 3.11: **Team-based working as a predictor of safety at work factors**

	Suffered work-related injuries		Suffered work-related stress		Witnessed errors and incidents		Experienced physical violence from				Experienced harassment, bullying and abuse from			
							Patients / service users		Work colleagues		Patients / service users		Work colleagues	
	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.
Real team														
missing a, b, c	1.287	0.000	1.564	0.000	1.152	0.000	1.205	0.000	2.254	0.000	1.074	0.050	2.056	0.000
missing b, c	1.315	0.000	1.245	0.000	0.919	0.080	1.056	0.454	1.327	0.128	0.909	0.065	1.361	0.000
missing a, c	1.606	0.000	1.831	0.000	1.490	0.000	1.200	0.000	2.407	0.000	1.192	0.000	2.286	0.000
missing a, b	1.084	0.271	1.476	0.000	1.056	0.331	0.901	0.249	1.047	0.872	1.042	0.485	1.653	0.000
missing c	1.406	0.000	1.241	0.000	1.053	0.007	1.235	0.000	1.050	0.579	1.137	0.000	1.308	0.000
missing b	0.969	0.581	1.079	0.062	0.822	0.000	0.820	0.006	0.884	0.603	0.841	0.000	1.142	0.012
missing a	1.070	0.186	1.623	0.000	1.338	0.000	0.971	0.612	1.549	0.006	1.053	0.202	1.712	0.000
Not in a team														
missing a, b, c	1.301	0.000	1.501	0.000	1.305	0.000	1.485	0.000	2.605	0.000	1.213	0.000	1.855	0.000
missing b, c	1.329	0.000	1.195	0.000	1.042	0.440	1.301	0.001	1.534	0.046	1.026	0.648	1.228	0.001
missing a, c	1.623	0.000	1.758	0.000	1.689	0.000	1.480	0.000	2.782	0.000	1.346	0.000	2.062	0.000
missing a, b	1.096	0.247	1.417	0.000	1.196	0.003	1.111	0.292	1.211	0.535	1.177	0.012	1.491	0.000
missing c	1.421	0.000	1.191	0.000	1.193	0.000	1.522	0.000	1.214	0.168	1.283	0.000	1.180	0.000
missing b	0.979	0.743	1.036	0.447	0.931	0.149	1.011	0.900	1.022	0.933	0.949	0.330	1.030	0.622
missing a	1.081	0.184	1.558	0.000	1.516	0.000	1.197	0.013	1.791	0.003	1.189	0.000	1.544	0.000

Note: Exp(B) represents the 'odds ratio' where a higher score indicates respondents in this group are more likely to have suffered work-related injuries or stress, have witnessed errors and incidents, or to have experienced violence or harassment when compared with a comparator group - in the first set of rows the comparator group was 'working in a real team', and in the second set of rows the comparator group was 'not working in a team'.

Work-related stress: **Table 3.11** shows that, compared with a 'real team', work-related stress was highest when respondents reported working in a 'pseudo team' where team members do work closely with each other (b), but which does not have clear team objectives (missing a), or does not meet regularly to reflect on past practice (missing c) (odds ratio 1.831) – this was actually higher than if the 'pseudo team' did not display any of the 'real team' criteria (odds ratio 1.564). **Table a2.6 (appendix 2)** shows that this pattern was consistent in acute (1.800), primary care (1.825), mental health (1.940), and ambulance trusts (2.052), and amongst clinical staff (1.825).

Table 3.11 also shows that, compared with a 'real team', work-related stress was comparatively high for respondents in a 'pseudo team' which does not have clear objectives (missing a only) but which displays the other criteria of a 'real team' (odds ratio 1.623). This, compared with a 'real team', was higher than for a 'pseudo team' which does not meet regularly to reflect on past practice (missing c only odds ratio 1.241) or where team members do not work closely with each other (missing b only odds ratio 1.079). **Table a2.6 (appendix 2)** shows that this pattern was consistent in acute (1.633), primary care (1.565), mental health (1.627), and ambulance trusts (2.103), and amongst clinical staff (1.621).

Errors and incidents: **Table 3.11** shows that, compared with a 'real team', witnessed errors and incidents were highest when respondents reported working in a 'pseudo team' where team members did work closely with each other (b), but which does not have clear team objectives (missing a), or does not meet regularly to reflect on past practice (missing c) (odds ratio 1.490) – this was actually higher than if the 'pseudo team' does not display any of the 'real team' criteria (odds ratio 1.152). **Table a2.9 (appendix 2)** shows this was consistent in acute (1.428), primary care (1.568), mental health (1.570), and ambulance trusts (1.789), and amongst clinical staff only (1.531).

Table 3.11 also shows that, compared with a 'real team', witnessed errors and incidents are comparatively high for respondents in a 'pseudo team' which does not have clear objectives (missing a only) but which displays the other criteria of a 'real team' (odds ratio 1.338). This, compared with a 'real team', was higher than for a 'pseudo team' which does not meet regularly to reflect on past practice (missing c only odds ratio 1.053) or where team members do not work closely with each other (missing b only odds ratio 0.822). **Table a2.9 (appendix 2)** shows that this pattern was consistent in acute (1.353), primary care (1.340), and mental health trusts (1.487), and amongst clinical staff (1.388).

Physical violence from work colleagues: **Table 3.11** shows that, compared with a 'real team', experienced physical violence from work colleagues was highest when respondents report working in a 'pseudo team' where team members do work closely with each other (b), but which does not have clear team objectives (missing a), or does not meet regularly to reflect on past practice (missing c) (odds ratio 2.407) – this was actually slightly higher than if the 'pseudo team' did not display any of the criteria of a 'real team' (odds ratio 2.254). **Table a2.15 (appendix 2)** shows that this pattern was consistent in primary care (3.378) and ambulance trusts (2.024).

Table 3.11 also shows that, compared with a 'real team', experienced physical violence from work colleagues was higher for respondents in a 'pseudo team' which does not have clear objectives (missing a only) but which displays the other criteria of a 'real team' (odds ratio 1.549). This, compared with a 'real team', was higher than for a 'pseudo team' which does not meet regularly to reflect on past practice (missing c only odds ratio 1.050) or where team members do not work closely with each other (missing b only odds ratio 0.884). **Table a2.15 (appendix 2)** shows that this pattern was fairly consistent in acute (1.919), and primary care trusts (1.326), and amongst clinical staff (1.675). However, for respondents from mental health trusts the odds ratio was *highest* where a 'pseudo team' does not meet regularly to reflect on past practice (missing c only) (odds ratio 1.484).

Harassment, bullying and abuse from work colleagues: **Table 3.11** shows that, compared with a 'real team', experienced harassment, bullying and abuse from work colleagues were highest when respondents report working in a 'pseudo team' where team members do work closely with each other (b), but which does not have clear team objectives (missing a), or does not meet regularly to reflect on past practice (missing c) (odds ratio 2.286) – this was actually higher than if the 'pseudo team' did not display any of the criteria of a 'real team' (odds ratio 2.056). **Table a2.21 (appendix 2)** shows that this pattern was consistent in acute (2.347), primary care (2.334), and mental health trusts (2.107), and amongst clinical staff (2.266) – but not amongst ambulance trusts, where the odds ratio was higher where a 'pseudo team' did not have clear objectives (missing a) and team members do not work closely together (missing b) (3.577).

Table 3.11 also shows that, compared with a 'real team', experienced harassment, bullying and abuse from work colleagues are higher for respondents in 'pseudo teams' which team does not have clear objectives (missing a only) but which displays the other criteria of a 'real team' (1.712). This, compared with a 'real team', was higher than for a 'pseudo team' which does not meet regularly to reflect on past practice (missing c only odds ratio 1.308) or where team members do not work closely with each other (missing b only odds ratio 1.142). **Table a2.21 (appendix 2)** shows that this pattern was consistent in acute (1.943), primary care (1.505), mental health (1.534), and ambulance trusts (2.073), and amongst clinical staff (1.609).

Overview

This section has shown that respondents working in a 'pseudo team' missing all three criteria, or in a 'pseudo team' where team members work closely with each other (b), but which does not have clear team objectives (missing a), or meet regularly to reflect on past practice (missing c), were more likely to report having witnessed errors and near misses, suffered work-related injuries and stress, or to have experienced physical violence or harassment than those working in 'real teams'. The analysis also showed that for those working in a 'pseudo team' which does not meet regularly (missing c only), but which displays the other criteria of a 'real team', then there were high levels

of work-related injuries and violence and harassment from patients; while for respondents in 'pseudo teams' which do not have clear team objectives (missing a only), but which display the other criteria of a 'real team'; there were high levels of work-related stress, errors and incidents, and violence and harassment from work colleagues.

3.3.2 Team-based working as a predictor of psychological well-being

According to the definition of team-based working used throughout this report we have stated that an implicit aim of team-based working is that individuals should work closely, interdependently, and supportively to achieve the team's goals and objectives. By working in this fashion it should lead to a reduced sense of work overload, reduced time pressures and a sense that there are sufficient resources to do the job. Ultimately this should mean that the psychological demands (or work pressures) felt by staff should be lower. It should also lead to perceptions of a more supportive working environment where team members have more clearly defined roles and objectives and can call upon others for help and assistance in achieving the team's goals and objectives. This could create an environment where team members feel valued and supported and are generally more satisfied with the job they perform, and are also less likely to express a desire to leave their current employment. Accordingly, in the next section we examine whether team-based work is related with various measures of psychological well-being.

Team-based working as a predictor of psychological well-being

If the respondents answer 'yes' to all three questions:

a) Does the team have clear objectives
b) Do team members work closely to achieve the team's objectives
c) Do team members met regularly to discuss its effectiveness and how it could be improved

they were classified as working in a 'real team'. If they answered, 'no' to any of the three questions above they were classified as working in a 'pseudo team'.

→ Staff job satisfaction

→ Work pressure felt by staff

→ Staff intention to leave

Table 3.12 shows that, for all staff in the NHS, job satisfaction was significantly lower for respondents who reported working in pseudo teams than for those working in real teams (β = -.187). **Table a2.22 (appendix 2)** shows that this pattern was consistent in acute (β = -.187), primary care (β = -.192), mental health (β = -.184) and ambulance trusts (β = -.166), and also amongst clinical staff (β = -.189). **Table 3.12** also shows significant positive relationships between 'pseudo teams' and 'real teams' for work pressures felt by staff (β = .055) and intention to leave (β = .082); although, it should be noted that these relationships are weak. **Tables a2.25 and a2.28 (appendix 2)** shows that for work pressure felt by staff and intention to leave this pattern of results was consistent across different trust types and amongst clinical staff.

Table 3.12: **Team-based working as a predictor of psychological well-being factors**

	Staff job satisfaction		Work pressure felt		Staff intention to leave	
	Beta	Sig.	Beta	Sig.	Beta	Sig.
Real team						
no team	-0.059	0.000	0.012	0.000	0.017	0.000
pseudo team	-0.187	0.000	0.055	0.000	0.082	0.000
Not in a team						
pseudo team	-0.085	0.000	0.035	0.000	0.053	0.000
real team	0.105	0.000	-0.021	0.000	-0.030	0.000

Note: Beta represents the 'standardised beta coefficient' so a positive score would indicate that the respondent in this group experienced higher job satisfaction, work pressure or intention to leave when compared with a comparator group - in the first set of rows the comparator group was 'working in a real team', and in the second set of rows the comparator group was 'not working in a team'.

Next we looked for any potential differential effects between the three types of 'pseudo team' – ones where the respondent indicated that the team was: a) missing all three of the criteria, b) missing two of the criteria, or c) missing one of the criteria. **Table 3.13** shows that for respondents working in 'pseudo teams' which were missing all three, missing two, or missing only one of the criteria of a 'real team', job satisfaction was significantly lower than for those working in 'real teams' (β = -.137, β = -.154 and β = -.122 respectively). **Table a2.23 (appendix 2)** shows that this pattern of results was consistent across different trust types and amongst clinical staff. **Table 3.13** also shows weak relationships for work pressure felt by staff and staff intention to leave, and that these were consistent across different trust types and amongst clinical staff (**see tables a2.26 and a2.29 appendix 2)**.

Table 3.13: **Team-based working as a predictor of psychological well-being factors**

	Staff job satisfaction		Work pressure felt		Staff intention to leave	
	Beta	Sig.	Beta	Sig.	Beta	Sig.
Real team						
no team	-0.060	0.000	0.012	0.000	0.017	0.000
missing 3	-0.137	0.000	0.035	0.000	0.063	0.000
missing 2	-0.154	0.000	0.059	0.000	0.077	0.000
missing 1	-0.122	0.000	0.031	0.000	0.049	0.000
Not in a team						
missing 3	-0.095	0.000	0.027	0.000	0.051	0.000
missing 2	-0.096	0.000	0.047	0.000	0.060	0.000
missing 1	-0.031	0.000	0.013	0.005	0.022	0.000
real team	0.107	0.000	-0.021	0.000	-0.031	0.000

Note: Beta represents the 'standardised beta coefficient' so a positive score would indicate that the respondent in this group experienced higher job satisfaction, work pressure or intention to leave when compared with a comparator group - in the first set of rows the comparator group was 'working in a real team', and in the second set of rows the comparator group was 'not working in a team'.

Next we examined whether there was a particular aspect of working in a team (i.e. a) have clear objectives; b) work closely together, or c) meet regularly and reflects) was most important. **Table 3.14** shows that, compared with a real team, job satisfaction was lower when respondents reported working in a 'pseudo team' where team members do work closely with each other (b), but which does not have clear team objectives (missing a), or does not meet regularly to reflect on past practice (missing c) (β = -.142) or where the 'pseudo team' did not display any of the criteria of a 'real team' (β = -.138). **Table a2.24 (appendix 2)** shows that this pattern of results was consistent across different trust types and amongst clinical staff. **Table 3.14** also shows weak relationships for work pressure felt by staff and staff intention to leave, and that these were consistent across different trust types and amongst clinical staff (**see tables a2.27 and a2.30 appendix 2)**.

Table 3.14: **Team-based working as a predictor of psychological well-being factors**

	Staff job satisfaction		Work pressure felt		Staff intention to leave	
	Beta	Sig.	Beta	Sig.	Beta	Sig.
Real team						
missing a, b, c	-0.138	0.000	0.036	0.000	0.063	0.000
missing b, c	-0.058	0.000	-0.005	0.049	0.020	0.000
missing a, c	-0.142	0.000	0.065	0.000	0.073	0.000
missing a, b	-0.057	0.000	0.036	0.000	0.036	0.000
missing c	-0.111	0.000	0.014	0.000	0.035	0.000
missing b	-0.018	0.000	-0.006	0.027	0.006	0.022
missing a	-0.078	0.000	0.064	0.000	0.053	0.000
Not in a team						
missing a, b, c	-0.096	0.000	0.029	0.000	0.052	0.000
missing b, c	-0.026	0.000	-0.011	0.000	0.011	0.000
missing a, c	-0.098	0.000	0.058	0.000	0.061	0.000
missing a, b	-0.031	0.000	0.032	0.000	0.029	0.000
missing c	-0.030	0.000	0.000	0.951	0.013	0.002
missing b	0.019	0.000	-0.012	0.000	-0.004	0.171
missing a	-0.040	0.000	0.058	0.000	0.043	0.000

Note: Beta represents the 'standardised beta coefficient' so a positive score would indicate that the respondent in this group experienced higher job satisfaction, work pressure or intention to leave when compared with a comparator group - in the first set of rows the comparator group was 'working in a real team', and in the second set of rows the comparator group was 'not working in a team'.

Overview

This section has shown that respondents who work in a 'pseudo team' were more likely to report (marginally) higher levels of work pressures, were (marginally) more likely to express a desire to leave, and were less likely to report that they were satisfied with their job. These patterns were consistent across all types of trusts. Those who work in a 'pseudo team' which was missing all three criteria, or in a team where team members do work closely with each other (b), but which does not have clear team objectives (missing a), or does not meet regularly to reflect on past practice (missing c), were more likely to express a desire to leave, and are less likely to report that they are satisfied with their job. The analysis also showed that those who work in a 'pseudo team' which does not meet regularly to reflect on past practice (missing c), but which displays the other criteria of a 'real team', were less likely to report that they are satisfied with their job.

3.4 Summary

Health service delivery requires many professionals to work in teams to deliver services to patients and services users. Although a large proportion of staff in the NHS report that they work in a team (nearly 90% of those who responded), only about half of these reported that they worked in what we would call a 'real team'; that is a team which has clear objectives, where team members work closely together to achieve the team's objectives, and where teams meet regularly to discuss their effectiveness.

Nearly 40% of NHS staff reported working in poorly orientated and poorly functioning teams: we have called these 'pseudo teams'. These 'teams' fail to establish appropriate team objectives, do not ensure that members work closely together to achieve those objectives, and are unable to communicate effectively to enable performance improvement. The results presented in this chapter suggest that individuals working in such poorly orientated and functioning teams were likely to report low levels of safety at work, and to suffer from poorer psychological well-being than those working in 'real teams' or those reporting that they did not work in a team at all. Specifically, there were higher chances of witnessing errors and near misses, experiencing work-related injuries, work-related stress, physical violence or harassment; and were less satisfied with the jobs they perform.

Our analysis would indicate such negative outcomes were often apparent in 'pseudo teams' where the teams did not have clear objectives and/or where team members did not meet regularly (regardless of whether they do or not work closely together). The next chapter uses data collected from NHS Trusts which displayed what we have defined as 'high', 'increasing' and 'low' levels of staff working in 'real teams' to examine whether there were any differences in these trusts, and examine why teams which have clear objectives, work closely together, or which meet regularly should have more positive outcomes then more poorly orientated and poorly functioning 'pseudo teams'.

4 *EFFECTIVE TEAM-BASED ORGANISATIONS*

In this chapter, we use qualitative data collected from interviews with senior managers and focus groups with staff members to examine for differences between NHS Trusts with varying levels of staff working in 'real' teams. We use this analysis to address research objectives one and eight.

4.1 Key Findings

Our analysis identified that amongst trusts with differing levels of team-based working that:

- Marked differences across NHS Trusts around the extent to which team members were clear about their own roles and responsibilities and those of other team members.
- Lack of clarity over roles and responsibilities often manifested itself in poor communication and lack of citizenship between team members, which could ultimately have an impact on the delivery of healthcare to patients.
- Team-based working was embedded across all NHS Trusts by virtue of the tasks completed, and working interdepedently in multi- and uni-disciplinary teams was essential to ensure the delivery of healthcare to patients.
- Finally, we found universal problems, across Trusts, of practical difficulties and resourcing issues preventing team members together in one place at the same time, and as a result teams not having sufficient opportunities to reflect on past performance.

More details of these findings are presented in sections 4.3.1 to 4.3.3.

4.2 Research Methods

4.2.1 Identifying the sample

Potential trusts were identified using the 'team-based working' measure – see Chapter 2 section 2.2 for more details – using data collected from the National NHS Staff Survey, and

In order to identify trusts we used the following criteria:

- Proportion of 'real teams' and 'pseudo teams' – a score was calculated for each Acute and Mental Health/Learning Disability Trust by calculating the proportion of staff working in 'real teams' to 'pseudo teams' in each trust using data for 2004, 2005 and 2006, and then taking an average across these three years. A higher score would indicate more staff worked in 'real' in well-structured teams.
- Increase in proportion of staff working in 'real teams' – a score was calculated for each Acute and Mental Health/Learning Disability Trust by calculating the change in the proportion of staff working in 'real teams' to 'pseudo teams' in each trust using data for 2004-5 and 2005-6, and then taking an average across these years. A higher score would indicate an increase in the proportion of staff worked in 'real' in well-structured teams.

This analysis excluded trusts where there had been a merger or large changes in staff numbers (i.e. restructuring) over the study period.

4.2.2 Participants

Fourteen Acute and Mental Health NHS Trusts took part in this part of the research. In total 35 senior manager interviews and 20 focus groups were conducted across the fourteen trusts. A summary of the participating trusts is shown in table 4.1. Staff represented a variety of roles including clinical, administrative and managerial. Interviews were conducted by telephone or on the Trust site, and all focus groups were conducted on site.

Table 4.1: Summary of participating Trusts

	No. of Trusts	No. of senior managers interviewed	No. of focus groups with staff
High	4	9	5
Increasing	7	16	6
Low	3	10	9
TOTAL	14	35	20

4.2.3 Interviews and focus groups

Participants were asked if they agreed for the interview or focus group to be recorded and were reminded verbally that comments they gave would remain anonymous and not be presented in a way that allowed them to be identified and that they could withdraw from the interview or focus group at any time. Topics covered included: whether the trust had formalised documents around team-based working (senior manager interviews), questions around organisational structure (senior manager interviews), types of teams that exist within the trust (i.e. uni-disciplinary, multi-disciplinary, inter-professional), whether teams had designated leaders, the design of teams (i.e. whether they had clear objectives, worked closely together etc.), and how team-based working had impacted on the quality of service provided to patients/service users and on staff. At the end of the interview or focus group the researcher spent some time answering any questions the participants had and explaining how their comments would be used. Ethical approval for the focus group and interview schedules (see appendix 3 and 4) was granted by North West MRec.

4.2.4 Analysis

Interview recordings were transcribed verbatim and checked for accuracy. Codes, developed in the context of the background literature and researchers' experience in the field, were apportioned to text and grouped thematically, following procedures for thematic analysis as detailed by Joffe and Yardley (2004).

4.3 Results and Summaries

The analysis reported in Chapter three illustrated that staff working in a 'pseudo team' typically reported higher levels of work-related injuries and stress, errors and incidents and also higher exposure to violence, bullying and harassment than those who worked in a 'real team'. Our definition of a 'real team' is one where team members: a) have clear team objectives, b) work closely with other team members, and c) meet regularly and review past performance and how it can be improved. Using these criteria of a 'real team', the following section examines the emergent themes arising from the interviews with senior managers, and focus groups with staff in NHS Trusts, which displayed 'high', 'increasing' or 'low' numbers of staff working in 'real teams' across the organisation.

4.3.1 Clear Objectives – roles and responsibilities

The first criterion of a 'real team' is that team members should have a clear understanding of the objectives of the team. Typically, staff members in trusts with high and increasing levels of 'real teams' often felt they had a clearer understanding of their own and other team members' roles and responsibilities, and felt that there was also a high degree of cooperation amongst staff in taking on additional tasks. Communication between team members appeared to be the key to achieving this cooperation amongst staff.

> *Communication between us is [the] key about who's doing what and why [they are doing it], and then being clear about who [takes specific] roles and who [takes specific] responsibilities.*
> *High Trust – Staff*

> *We have a time-table for the unit [which makes it clear] what needs to be done each day, what needs to be done monthly, what needs to be done weekly and who those tasks are designated to.*
> *High Trusts – Staff*

> *Most of the actual things that [happen] on the ward are negotiated and done by meetings and reviews: people get to choose as there [is] no point imposing upon them if they don't want to do it.*
> *High Trust – Staff*

Also apparent in many focus groups with staff in trusts with a high number of staff working in 'real teams' there was the willingness of staff to display citizenship and help out colleagues and take on other colleague's responsibilities where needed, to cover holiday or sick leave for example. One manager stated that he encouraged citizenship and helping out colleagues by leading by example, and would take on additional tasks that needed doing, and expected his staff to do the same.

> *It's a culture that all nurses work to. It's not assigned in any job description or tasks on paper and when you come into nursing you automatically assume that you're going to help your colleague.*
> *High Trust – Staff*

> *If somebody is away for a week, whether it's leave or whatever, even though the other two people in the team might not be able to do everything that they do, they'll be able to pick up the essentials and keep it ticking over.*
> *High Trusts – Staff*

> *I do whatever needs to be done… I do it all and I expect everybody else to be able to, and most people do.*
> *High Trust – Senior Manager*

Similarly, staff members in trusts with an increasing level of work in 'real teams' often expressed that roles were generally clear, and assigning any additional tasks was discussed within the team. Flexibility in roles and responsibilities, rather than a strict adherence to the job description, was also evident. A willingness to assume responsibility for completing tasks rather than leaving them to someone else also appeared to occur, particularly when it came to the delivery of patient care.

> *If there's any additional actions or anything required then it's discussed in that meeting who will take on that responsibility.*
> *Increasing Trust – Staff*

> *Staff have to show a high degree of flexibility and just pitch in and fit in wherever there's a gap and help out with whatever is required. [I am] very fortunate that I have a great bunch of people working with me who will do that, they don't work to grade, they don't work to speciality, [and] they are very good at supporting each other.*
> *Increasing Trust – Staff*

> *What I don't want to do is say 'well that's not me, it's this person'. I don't want to be passing this person [patient] from pillar to post.*
> *Increasing Trust – Staff*

In marked contrast, staff members in trusts with low levels of 'real teams' felt that there was less clarity over who had responsibility for certain tasks. Whilst this confusion often reflected difficulties in the services provided by a particular team; although some staff felt lack of clarity occurred between different professional groups (for example, between domestic and nursing staff).

> *One of the problems is we don't know the differences between other areas and ours – should nurses be doing this? Is it our job [domestic] or the nurses' job?*
> *Low Trust – Staff*

Often staff members in trusts with low levels of 'real teams' felt that there was a general reluctance of staff to take on tasks not formally described in their job description. Although all the staff taking part in the focus groups were happy to undertake any tasks that needed doing, they often expressed that other staff would not, and this refusal to help each other out often caused resentment between team members.

> *Some people would look at that job and think 'that isn't my job'... whereas I wouldn't do that. I'd actually think oh well, I'm here, I'm a domestic, it is my job, no matter what you call it.*
> *Low Trust – Staff*

> *There's always someone who [says] that's not in my job description, therefore, I shouldn't' have to do it. Whereas the younger ones that are coming in now are trained more to work as a team... they don't abide by the job description, but they do more of what's expected of them to work as a team.*
> *Low Trust – Staff*

> *You're working flat out and you see others just sitting there [saying] well I'm not doing it, it isn't my role and I know it's been a cause of resentment in the past.*
> *Low Trust – Staff*

Where tasks and responsibilities did not fit easily into one person's job description, some staff in trusts with low levels of 'real teams' appear to experience some degree of confusion over who would take it on; or tasks were assigned arbitrarily by senior managers without discussion, which could then cause resentment between team members.

> *There are still gaps as to certain tasks that aren't actually happening and we don't know who we turn to to do that.*
> *Low Trust – Staff*

> *Rather than a decision made for the team [allocation of tasks] it's a personal decision made by someone because they can make that decision.*
> *Low Trust - Staff*

Several managers talked about working in 'teams' being important because effective service delivery would not happen without effective team-based working. It could, participants suggested, be that effective service delivery occurs because working in teams offers a form of checks and balances whereby effective teams are likely to have more clearly defined roles and objectives, and also have a better understanding of how their role fits in with the bigger picture and how it fits with the objectives of the team and the organisation as a whole.

> *People need to realise that they work as a team and deliver the service as a team. Then there is flexibility for the individual within that. There's a 'checks and balances' thing going on between the needs of the team and the organisation and individual.*
> *Increasing Trust – Senior Manager*

Seeing how roles fit in with the bigger picture appeared to be dependent on information being shared effective between managers, teams and team members. Many managers described a process of team objectives being cascaded down from executive management, through the management levels to team leaders, who were often responsible for briefing other team members, and then for the team to set its own objectives so that they fit in with the more general corporate objectives of the whole organisation. Managers identified the importance of information being cascaded effectively, and the critical role of the middle management and team leader, and this then impacting on the quality of the information which cascaded down to team members.

> *]There are] trust objectives that are filtered through from the top down so each grade people have cascaded objectives. You might have an objective to increase access of black minority ethnic groups. So within your team you might then actually sit down and plan that but the actual priority is set externally.*
> *Increasing Trust – Staff*

> *The lines of communication are quite long so by the time you get to the bottom it's been quite difficult to cascade that through, but we've got a much clearer structure now because we went through a management restructure about nine months ago, which is new, just about finished and it's just about starting to bed down.*
> *Low Trust – Senior Manager*

> *Broadly our vision for the organisation is one where the patient drives everything we do, as those objectives get tumbled down through the organisation, get cascaded through... then my view is that the porter, who has a set of objectives around that and maybe a set of team objectives will then be able to sort of link their objectives with the Trust vision statement. But then, when we get into team-based appraisal we'll be looking across the whole team, whole ward team, whole clinical team, across the piece whereby we manage everybody within an umbrella set of objectives.*
> *Low Trust – Senior Manager*

This top-down process often occurs because trusts are responding to external drivers, such as Government targets or initiatives; although, teams could still be used as a mechanism for staff involvement and to promote the bottom-up flow of information and opinions:

> *I wouldn't say it [setting objectives] was top-down – I'd say it was speciality and team-based on the whole, but proportionately it might be more top-down in future because we're refreshing our strategy, and the next step is to involve the next layer down in that, so that's got a little bit more of a top-down push, but we're quite a bottom-up organisation – I would say.*
> *High Trust – Senior Manager*

Overview - clear Objectives

As mentioned earlier, the analysis reported in Chapter Three illustrated that staff working in 'pseudo teams' reported high levels of work-related injuries and stress, errors and incidents and also higher exposure to violence, bullying and harassment than those who worked in 'real teams'. This could be due, in part, to staff members working in a 'real team' having more clearly defined roles and objectives. The analysis presented in this section would offer some degree of support for this: it would appear that where staff worked in trusts with high or increasing level of 'real teams' then there appeared to be a greater understanding of their roles, more discussion between staff and managers, and a willingness of staff to display citizenship and help each other taking on tasks that might not be formally part of their job description as and when required. In contrast, staff in trusts with low levels of 'real teams' there often appeared to be a blurred understanding of their own roles, and those of other team members, was blurred, and additional tasks were often given to them without discussion; there also appeared to be a general refusal by some staff to help others which, collectively, caused resentment.

4.3.2 Working closely together – the need to work interdependently

The second criterion of a 'real team' is that team members should work closely together with other members of staff to complete their tasks. Often, there was a historical structure in place in trusts that identifies 'teams' according to the service they provide, and the notion of team-based working can be viewed as being implicit and embedded in the culture of the organisation, rather than being set out in formalised documents about team-based working. These views were not unique to trusts which had high numbers of staff working in 'real teams'; a similar rhetoric was also evident in the trusts identified across all types of trusts, with the common suggestion that teams existed naturally.

> *I'd say there's the cultural thing which is probably more important than the policy documents.*
> *High Trust – Senior Manager*

> *The work that we do is team-based and interdisciplinary, and the strategy of the trust is [related to] that, [and] we have in the kind of work we do, team working, and it is implicit in everything we do.*
> *High Trust – Senior Manager*

> *It is fundamental to the whole approach [of the service provided] and the whole style in which you are working, and so many times you are talking about the multidisciplinary approach to patient care and through the patient pathway. So it really is embedded in the things that we do and we have to work a lot with social care and social services colleagues, voluntary sector, all that, so I think there's a pretty good approach to integrated team-based working really.*
> *Low Trust – Senior Manager*

> *Being part of the clinical support services, we naturally have to work as part of a team otherwise you wouldn't get the work done.*
> *Increasing Trust – Senior Manager*

There are also certain principles that govern how people should work, as individuals and also as a team member; services could not be delivered if staff members were not structured in 'teams'.

> *We've certainly got [certain] principles, [which represent the] expected conduct that would apply to any individual on their own or in teams and that certainly encourages [staff] to cooperate and not compete*
> *Low Trust – Senior Manager*

4 EFFECTIVE TEAM-BASED ORGANISATIONS

All managers who participated in the interviews emphasised the importance, and prevalence, of interdependent working. Managers gave examples of different professional groups who need to work with other different professional groups to complete tasks. Equally, some professional groups are sometimes perceived as working alone but are still part of a team, not just their own professional team but also often part of a multidisciplinary team, for example on a ward or unit, and in this instance interdependent working was vital for effective patient care:

> *My view would be that it would be very difficult to work independently within my clinical group, because you do rely on other people for some aspects of your own role, to achieve what you've got to achieve … The anaesthetist couldn't work totally independently because without the ODP in theatres to sort out the machine etc, so there are interdependencies for every staff group.*
> *Increasing Trust – Senior Manager*

> *We are all inter-dependent; we have all got mutual relationships. [No one team] can offer a quality service in isolation, there are so many different parts of a human being that we have to interact with, I am quite clear that everyone has to be engaged. Otherwise quality of patient care will fall.*
> *Increasing Trust – Senior Manager*

Most managers and staff espoused the merits of multidisciplinary team working, although a few managers felt that uni-disciplinary teams might be more effective for certain specific tasks or functions. Individuals can be seen as belonging to both uni-disciplinary teams based on professional groupings and also multidisciplinary teams structured around wards. Staff providing clinical care to patients or service users typically felt that they belonged to both types of team. Other groups such as porters and security staff were seen by one manager to be largely uni-disciplinary.

> *There are still some uni-disciplinary teams around – psychology, for example, where we haven't yet fully integrated them [as part of the team]. You'll find a mixture – some individual psychologists might be part of a multi-disciplinary team, but they may also be part of a psychology team, and regard themselves in that way.*
> *Increasing Trust – Senior Manager*

> *There's six [people] in our team and we're uni-disciplinary in the fact that we're [all] midwives and that's the main part of our job but we work within a multi-disciplinary [nursing] team liaising within and out the hospital.*
> *Increasing Trust – Staff*

Participants reported potential benefits to patients as a result of professionals from different backgrounds and from different perspectives working together, as this fostered creative and innovative approaches to problem solving. Working within a multidisciplinary team sometimes allowed for a 'fresh pair of eyes' to look at a problem, and to challenge one another professional assumptions, and to 'bounce ideas' around the team in a way that may not happen in uni-disciplinary teams where people often have the same experiences and methods of working.

> *It raises everyone's game though, because if you've got a multi-disciplinary team where you've got a whole range of different skills and experience amounting to over hundreds of years quite often, what happens is you get a cross fertilisation of different cultures and ideas.*
> *Low Trust – Staff*

> *The multi-disciplinary teams are much more effective [because] there's a higher level of challenging assumptions in a multi-disciplinary team. [While] in a uni-professional team... they feel they are safe in their own professional group and therefore challenging assumptions, challenging practice doesn't happen because they only look inwardly at their own profession.*
> *Low Trust – Senior Manager*

However, one manager observed that, in clinical decision-making, sometimes a clear consensus was important for patient care, and suggested a uni-disciplinary team might more easily provide that:

> *It is often easier to come to a consensus within a uni-disciplinary team. Part of the strength of a multidisciplinary team is that people will have different viewpoints, but in a clinical setting, the important thing is the chairing of that and I think with clinical decision making that if you can have 5 or 6 people expressing different views and you break up the meeting with no clear consensus that can be quite dangerous.*
> *Increasing Trust – Senior Manager*

A couple of managers noted there was the potential for inter-professional tensions and professional jealousy, and potential loss of professional identities within a multidisciplinary team, even though such teams could ultimately allow all professions to flourish.

> *From the service user point of view, it is imperative that they have multi-professional teams. I also believe passionately that those individual professional groups flourish within a multi-professional team and shouldn't be threatened by it, but again I appreciate the reasons why they [might] feel threatened by [a possible] loss of identity and [professional] networks.*
> *High Trust – Senior Manager*

However, a manager noted that if a multidisciplinary team becomes very large, this can cause logistical problems, but the premise of having all the different professional groups represented in meetings and providing their views and opinions was beneficial for patient care and could be replicated within larger teams:

> *I would say the ones that actually are multidisciplinary are the most effective at the moment. But [these] tend to be the smaller teams, where it's actually easier to do that. Oral Surgery teams are a good example and their management team will meet and they will have their clinical lead, the manager, the matron and everybody else including the secretaries to attend the meeting and they get a real broad perspective and everybody feels engaged and involved. If you tried to replicate that for a bigger speciality like General Surgery we would have to hire a conference facility to get everybody in.*
> *Low Trust – Senior Manager*

Managers and staff almost universally link the practice of team-based working to improved patient care. The complexity of patient needs, and the multidisciplinary team that needs to evolve to address these, was a common theme. One professional group alone cannot meet all of the patients' requirements, and without 'good' team working, patient outcomes would not be as successful.

> *The specialist care that our patients get is only possible because we have an interdisciplinary team in most cases. Because that is what makes us different from any other trust – it's interdisciplinary, multi-disciplinary – they don't come here just for Occupational Therapy or just for Physiotherapy, they come here for a holistic approach, and I think people would say that we do give a holistic approach to our patient care, and so obviously the patients benefit.*
> *High Trust – Senior Manager*.

> *Because of the complexity of the injuries that patients have it is very complex and lots of different components, and consequently there are lots of different therapies needed in order to treat those various different components. I think that's why as a unit we're very successful at what we do because we have a very skilled work force that's made of lots of different components, lots of different disciplines all working with that aim to get somebody back to as normal as possible. If we didn't have that then our outcomes would [not] be as good.*
> *High Trust – Senior Manager*

Consistency across the care pathway, provided by 'good' team working, was beneficial to patients. Members of the team know the needs of the patients and all work closely together. Responsibility for the patients' care, treatment and wellbeing was a shared responsibility.

Many patients that we see have been through many, many hospital systems. They've been told many different things by many different clinicians about what's wrong with them and what they should do, and one of the really important things that we do is, as a team, we all say consistently the same thing to them, and we do that by very close working and knowing what we are doing with each patient individually and what we are doing within the group.
High Trust – Senior Manager

I think the outcomes certainly improve, especially, particularly our team. We don't make it a sole responsibility; patient care is not a sole responsibility of a professional, it's actually a shared responsibility.
Increasing Trust – Senior Manager

Overview - working closely together

In Chapter Three we identified that working in poorly structured 'pseudo teams' was associated with higher levels of work-related injuries and stress, errors and incidents and a higher prevalence of violence, bullying and harassment: this could be because such 'teams' do not work closely together to achieve their objectives, and different parts of the 'team' may ultimately have the same set of objectives, but may not be communicating effectively with each other to achieve these objectives. There appears to be a lack of formalised policy around team-based working, but there was an acceptance that team working was fundamental to providing quality patient care, and to organisational effectiveness more generally. All participants felt there was an implicit culture of team-based working embedded within their trust through the organisational structure and asserted it would be impossible effectively to deliver services without team-based working.

This section would illustrate the apparent importance of team members working interdependently, and the potential benefits of teams working across multidisciplinary boundaries. Multidisciplinary teams appear to allow ideas to be shared and discussed, and assumptions to be challenged so team members consider different perspectives. There was little evidence staff fear inter-professional conflict; although consensus on treatment and care plans may be easier to achieve within uni-disciplinary teams, staff agreed that better patient care would result from a multidisciplinary approach, and team-based working was central to complex care pathways and this can only be delivered by multi-disciplinary teams.

4.3.3 Teams meeting regularly and reviewing performance

The third criterion of a 'real team' is that team members should meet regularly, and should also regularly reflect and review their performance. The first apparent finding coming from the interviews and focus groups was that often 'team meetings' related to the daily hand-over from one shift to another, rather than being an opportunity to be reflective about past performance. However, a manager from a trust with high levels of 'real teams' observed that team meetings also offered an opportunity to be reflective, whereby team members would could discuss day-to-day issues, such as things that were working or things that were not working, and use team meetings as an opportunity for networking and disseminating information.

> *Our team meetings and things like that tend to be more around kind of staff support, and... day-to-day management issues, things that we want to change ourselves, what can we do, things that are working well, reporting back on what things aren't working, kind of disseminating information, and things that are going to happen.*
> *High Trust – Senior Manager*

This was supported by staff members at a trust with an increasing level of 'real teams', who felt that team meetings offered an opportunity for staff to spot things that were not working before they are identified as an objective, and for the team to take some type of proactive action to rectify these areas of concern.

> *I think there are all of those things that are expectations and policies, and guidelines, and standards, but I think that also the team has the ability... to spot things that may be developments – even before they become policies or guidelines or requirements – and in that way the team sets its own objectives, because we'll be proactive in those areas – might develop a new way of recording something, a new way of monitoring something, or even a new course to be delivered, to meet a need that is on the horizon.*
> *Increasing Trust – Staff*

Many trusts had away days for teams, and it was usually at these away days, annually or six-monthly, that the team's performance was reviewed against objectives, and the importance of sharing what was going well:

> *We do go through and check off that we've actually done, and what's been agreed at the start of the year. We do have a more specific annual review... if we've hit the targets that we've actually set and sometimes if we haven't then it's what we've focused on*
> *High Trust – Senior Manager*

> *We also have approximately quarterly an away day. That's where we do the same sort of thing where people, I mean the last one we had we called it a praise day and everyone talked about the things in their profession that they were really proud of. Then you know it could be something quite simple but they were really proud of having done that over the past year as it happened.*
> *Low Trust – Senior Manager*

However, many managers across all trusts raised practical difficulties of getting all team members together in one place, and, as a consequence, often this means that teams do not have sufficient time to get together to discuss and reflect on performance.

> *I would say that the one thing that regularly suffers is the meeting regularly to discuss performance. Whereby people might say we're just so busy we don't have time to get ourselves together as a team, I think that's missing the message personally but there could be areas where we don't get people meeting up as regularly as we would like them to.*
> *Low Trust – Senior Manager*

Often this was because team members worked on different shifts, or more generally experiencing problems and difficulties in clinical staff being released from clinical duties, and that these team meetings were voluntary so not all team members would attend.

> *[For] some of the groups it's harder to have team meetings – I'm thinking of nurses who're on shifts, and the difficulties in getting staff released to attend a meeting so that they go, and I think that's where it's always harder to keep things going. Where it's actually really necessary to the patient, then it happens, in terms of the regular co-ordinated meetings about patient carer.*
> *High Trust – Senior Manager*

> *You can't say at 12 o'clock today, on this date, there's going to be a team brief, because half your staff are over there, and half your staff are over there; they're not in today, they won't be in tomorrow.*
> *Low Trust – Staff*

However, one member of staff, in a trust with increasing levels of 'real teams', who was also a team leader, talked about getting around such difficulties by conducting a series of ad hoc meetings. These meetings would be more informal and might not involve all team members.

> *I'm a team leader, so I go to team leaders' meetings and we get information from the higher level down to us and we talk about guidelines etc, protocols, all that and we (then) disseminate the knowledge back down to our teams,. So there's actually quite a lot of little meetings going on to kind of disseminate*

> *this now... The [meetings] within our team are more informal and that's on an as-and-when basis dependent on how many staff are in that day. So there could be, over a period if something had to happen and everyone needed to know, there could be a series of meetings, maybe with just two people each time depending on staffing levels and they're very informal.*
> *Increasing Trust – Staff*

Overview - teams meeting regularly

In Chapter Three we identified that working in poorly structured 'pseudo teams' was associated with higher levels of work-related injuries and stress, errors and incidents and a higher prevalence of violence, bullying and harassment – part of this, we speculated, was because better functioning 'real teams' meet more regularly and are reflective on things which have not gone well before, and have amended workplace behaviours accordingly. The analysis in this section would appear to illustrate some degree of uncertainly about what a 'team meeting' actually represents – often these were considered as the hand over from one shift to another, rather than a more formalised meeting where staff members can share their experiences and be reflective on these experiences. Some trusts with higher levels of 'real teams' identified the benefits of using team meetings as a mechanism for being reflective and acting proactively and rectifying areas of concern.

4.4 Summary

The analysis presented in Chapter three would indicate that staff working in poorly functioning 'pseudo teams', were more likely to report higher levels of work-related injuries and stress, errors and incidents, and had a higher exposure to violence, bullying and harassment than those working in a structured 'real team'.

Why should this be the case? We have proposed that a structured 'real team' is a team which has clear objectives, where team members work closely together to achieve the team's objectives, and where teams meet regularly to discuss their effectiveness. Our analysis presented in this chapter would appear to illustrate that where was a higher proportion of staff working in 'real teams', team members tended to express having a clearer understanding of both their own, and also their colleagues roles and responsibilities. This shared sense of understanding also seemed to facilitate a sense of greater cooperation and citizenship amongst team members, who were prepared to help out colleagues when required. This did not appear to be case with trusts with a lower proportion of staff working in 'real teams'.

Secondly, the results presented in chapter three illustrated that a large proportion of staff members work in teams which do not meet regularly (nearly 18 percent of respondents worked a team which displayed all the criteria of a 'real team' apart from meeting regularly). 'Team meetings' often related to the hand over off of caseloads following shifts rather than being a formalised mechanism of sharing information, problem solving, communication and planning. Staff also expressed that that there were significant time pressures and resources restrictions which often preventing all team members together in the same place at the same time.

Finally, staff also expressed that they often worked in a 'team' by virtue of the tasks they are required to complete, and this approach to structuring work into 'teams' is often cultural and embedded, with effective 'team working' required in order to provide effective services to patients. Multidisciplinary and interdependent working is now the norm in the NHS, with clear perceived benefits for staff and patients,

however whilst there is evidence of the commitment of staff and management to working together as a 'team', the analysis set-out in this chapter would appear to suggest that there is often not a formalised approach to promoting team-based working in NHS Trusts.

5 TEAM-BASED WORKING INTERVENTIONS

In this chapter, we draw on the qualitative data collected in interviews and focus groups with senior managers and staff members. These were designed to examine the impact of interventions designed to promote team-based working, and also to identify the potential barriers and facilitators to implementing these interventions. We use these accounts to address research objectives five, six and seven.

5.1 Key Findings

Our analysis appeared to identify a range of benefits amongst NHS Trusts which had implemented interventions designed to promote team-based working. Specifically, these included:

- Patient outcomes, such as waiting times and length of stay, are improved as a result of team-based working and patients experience a more uniform and coordinated care pathway
- Team-based working interventions encourage all members of a team to participate in setting the team's goals and objectives
- Better understanding and communication within the team and with other teams as a result of team-based working improves morale and service delivery
- Team-based working interventions helps staff identify everyone's roles and responsibilities, how they each contribute to meeting the team's objectives
- Staff are empowered through the team-based working approach and feel valued and trusted

More details of these findings are presented in section 5.3.1.

5 TEAM-BASED WORKING INTERVENTIONS

Our analysis appeared to identify three main categories to implementing team-based working interventions. These related to i) managerial, ii) organisational, and iii) individual level barriers and facilitators. Specifically, these included:

- Top level management support and good leadership is important for the success of team-based working implementation
- Releasing staff to attend team-based working events is difficult if clinical cover needs to be maintained. If this is not supported by management team-based working is perceived as unimportant
- Trusts meeting the financial costs of team-based working interventions emphasises management commitment to the process
- Having key staff as champions of team-based working encourages and motivates thereby facilitating effective team-based working
- A key facilitator to successful team-based working implementation is effectively communicating the patient care and staff benefits.

More details of these findings are presented in section 5.3.2.

5.2 Research Methods

5.2.1 Team-based working Interventions

A total of eleven trusts were identified by colleagues at Aston Organisational Development as having implemented an intervention to increase team-based working in recent years. The trusts were geographically spread across England and included mental health, care and acute trusts. Senior managers, such as HR managers and clinical directors, and staff from all professions and grades were approached to take part. A variety of interventions had been implemented within the participating trusts. A few Trusts ran consultancy services with staff facilitating team-based working within specific teams, using away days for example. Other trusts were in the stages of implementing a trust wide team-based working training initiative for managers and team facilitators and one Trust intervention centred around a developing a particular patient pathway. A summary of the participating trusts and the interventions they implemented is shown in table 5.1.

Table 5.1: Summary of participating Trusts

Trust	Type of Trust	Type of team-based working intervention
A	Acute	Creation of a clinical pathway for a certain group of patients (see Box 1 for details)
B	Acute	TBW facilitators programme (see Box 2 for details)
C	Acute	TBW programme for managers
D	Mental Health	Consultancy work with individual teams
E	Acute	Aston TBW questionnaire
F	Acute	Consultancy work with individual teams
G	Care	Consultancy work with individual teams
H	Mental Health	Consultancy work with individual teams

5.2.2 Participants

In total eight Trusts that had undertaken a team-based working intervention took part in this component of the research. Three further Trusts approached about the research declined to participate but did not provide any reasons for doing so. In total 15 senior managers and 41 staff took part in interviews or focus groups. Staff represented a

variety of roles including clinical, administrative and managerial. Interviews/focus groups were conducted by telephone or on the Trust site.

5.2.3 Interviews/focus groups

At the interviews and focus groups (see appendix 5 and 6 for the interview and focus group schedules), participants were asked if they agreed to the interview/focus group being recorded and were reminded verbally that comments they gave would remain anonymous and not be presented in a way that allowed them to be identified and that they could ask for the interview to be stopped at any time. Topics covered by all participants included: the intervention implemented, barriers and facilitators to this and how successful it had been. The senior managers taking part were also asked questions around team-based working at the Trust, what type of teams existed within the Trust, whether HR systems supported team-based working and how team-based working had impacted on the quality of service provided to patients/service users and on staff. At the end of the interview the researcher spent some time answering any questions the participants had and explaining how their comments would be used. Ethical approval for the focus group and interview schedules (see appendix 5 and 6) was granted by North West MRec.

5.2.4 Analysis

Interview recordings were transcribed verbatim and checked for accuracy. Codes, developed in the context of the background literature and researchers' experience in the field, were apportioned to text and grouped thematically, following procedures for thematic analysis as detailed by Joffe and Yardley (2004).

Briefly the process is as follows:

- Data familiarisation: reading of complete interview transcripts
- Data reduction: coding of the interview transcripts and field notes
- Interpretation: understanding the meaning of concepts and categories generated.

5.3 Results and Summaries

In this section, we present details of the qualitative data analysis of the interview and focus group with senior managers and staff members. This section is split into two sections: firstly, we present details of the perceived benefits (patients and to teams) of implementing team-based working initiatives, and secondly we present details of the potential barriers and facilitators to implementing these interventions.

5.3.1 Team-based working interventions

For this part of the project were visited eleven trusts which had been identified as having interventions designed to promote team-based working. A variety of interventions had been implemented, ranging from Trusts running away days with teams and offering consultancy services to help facilitate team-based working to other Trusts which had attempted to implement training initiatives for managers and team facilitators around promoting team-based working. Detailed examples of two of the interventions can be found in table 5.2 and 5.3.

Table 5.2: examples of team-based working interventions

It was because of the Commission for Health Improvement (CHI) report and also the pressure on beds and the fact that people [patient group] felt was being slightly neglected that this care based team was set up. Rather than have the care split among separate consultants, the care of all the patients came under one consultant. The operating theatre availability was changed, and rather than being just any old patient could go on that list, that the only patients that go on that list are [patient group], which altered the perception and priority of them. I then empowered A&E to send patients directly to the wards, with the understanding that they had to meet criteria. The role of the advanced nurse practitioner (ANP) was developed. Rather than rely on SHOs – that may be busy, or change jobs every six months - the ANPs are able to order x-rays, write prescriptions, examine patients and make clinical decisions for the patient. They've hopefully been empowered to do those things and now act as a very strong conduit between the nursing side, the medical side, and the surgical side, so it means that everyone is talking to each other, that the patients are all known about, that the problems are related to each other, and that things move forward. Every part of the pathway from A&E to discharge contributed to developing a care plan, which then prompts you to think about the different things – whether it's getting the patient ready for theatre, whether it's discharging the patient, whatever it may be –that's where the documentation has actually meant that the team works better together

Table 5.3: examples of team-based working interventions

We run a team-based working programme, which takes team leaders, team facilitators and develops them to be able to run a formalised team-based working process in their area. We have team facilitators who aren't the team leaders. The team leaders come on a one day course which introduces them to team-based working and explains to them what the role of the facilitator is but it's a facilitator elected from within the team that is given the tools and the skills to go back and work with the team and then the team leader's role is to support the facilitator in undertaking that. We start from the kind of high level of introducing them to the Trust business goals and objectives and then ask them to think through with their teams what their local team's goals and objectives would be in the context of the Trust's goals and objectives. We also give them some tools to look at mapping who their team is and other teams they work with and assessing the effectiveness of the inter-team working. We also do some work with them around conflict resolution, questioning and listening. They go out effectively with this 'tool kit' [and] sit down with their team and work through the various exercises.

The following section examines this from the perspective of how team-based working interventions have directly impacted on the delivery of patient care, and also how they have impacted on the members of staff responsible for the delivery of patient care.

Effects of team-based working interventions on patient care and service delivery

Whilst some of the team-based working interventions were with teams that did not have direct contact with patients, other participants readily identified a large number of improvements to patient care as a direct result of the intervention. Participants in two trusts noted how, after the intervention, key targets were being met and how aspects such as waiting lists, length of stay and infection rates had decreased, predominantly as a result of the differing teams involved in the patient's pathway all working together better.

[After the intervention] the time in A&E has changed so that we now have 99% of people in A&E for less than four hours … eighty-seven per cent of patients are operated on within twenty-four hours of safe surgical time … wound infections are dramatically down. The length of stay in hospital has changed from twenty-six days to eleven days at the moment.
Senior manager

[After the intervention there was] better quality care, reduced length of stay, fewer hospital acquired infections.
Staff

> *So that [the intervention] was a real success… now [waiting lists] are already under 6 weeks, so service delivery it's been brilliant.*
> *Staff*

Staff felt that the team-based working intervention now meant patients received uniform care, with all patients receiving, where appropriate, the same care and treatment plan. In this way all staff knew what care, medication and so on to provide at what stage of the patient's journey.

> *[The intervention] has made the care coordinated; standardised is the wrong word to use, but it has tried to make [delivery of patient care] more uniform.*
> *Staff*

The team-based working intervention resulted in a clinical team at one trust producing standardised documentation for the whole patient pathway, with the input from every team involved in delivering that service, that ensured all patients received the same care, treatment and discharge planning.

> *[New documentation] was one way of making sure that care was coordinated and not standardised as such but there was a standard way you all recorded, you all used the same paperwork, it wasn't just a set of notes that can be anywhere and everywhere. The pathway is very good because you know which are A&E, which are pre-op and theatres and which are the post-op bits and everyone knows where they should write and it's made the care, because of that, it's identified the links that we had to make with the [other teams] and have a meeting to sort out the standardised drug treatments to make everything, I think the care is a lot more coordinated.*
> *Staff*

Together with consistency of care, participants felt team-based working also provided consistency of staffing. The team-based working approach implemented within the clinical teams ensured there where always key staff who were familiar with all of the patients on the ward and what care they required. Given the constant changes of junior doctors on rotations, having key staff who were permanent provided a continuity of care across the team.

> *An advantage of having 2 [advanced] nurse practitioners [ANPs] is we haven't got what other places will have, is junior doctors with no consistency and shift patterns so they are here one week and gone the next. With [ANPs] they know the patients well, there's always one of them covering the patients and we're clear what we're doing. It [improves] consistency. That makes a big difference.*
> *Staff*

The final benefit to patients from team-based working interventions, as noted by participants, was the coordinated care pathway. By having a team-based approach different departments providing care along the pathway were all part of a larger team rather than stand alone service providers.

> *We've felt that [the intervention] has certainly focused our attention on the whole of the care package rather than individual silos. Before care based team working it was 'we're A&E we don't care what happens when they go'. We're the discharge [patients], we're just concerned with that side of things. So it's certainly helped people see the bigger picture.*
> *Senior manager*

> *[The intervention has] improved discharge coordination as well. It's coordinated care really.*
> *Staff*

Overview

The analysis presented in this section would appear to illustrate that there were clear benefits to patients and service users of team-based working interventions. Specifically, participants felt that team-based working had helped achieve key Government target, such as reducing waiting times and length of patient stay. This could be because team-based working interventions were often associated with Trusts also introducing policies and procedures designed to coordinate care pathways and multi-disciplinary team working, and ensure consistent staffing (for example, by introducing extended roles such as advanced nursing practitioners) which often resulted in patients now receiving more uniform care along the care pathways.

Effects of team-based working interventions on teams and team members

Participants noted numerous benefits from the team-based working interventions for the team as a whole. Specifically, the interventions had helped foster a sense of purpose for the team, with everyone working toward a common goal. One participant commented that this meant staff could see what they were working to achieve and could feel proud at their role in this.

> *They're very much focused on patient care being the highest priority and working together to actually achieve that.*
> *Senior manager*

You can work more cohesively because you feel oh yes, I'm part of this and you take more pride in what you do. So we do see it as quite a positive thing.
Staff

A frequently identified benefit of the team-based working intervention was that it gave teams an opportunity to reflect on exactly what their objectives were, to clarify these and for all members of the team to have a say in guiding and developing these objectives. Giving all staff, including junior staff, an opportunity to be involved meant the objectives could clearly and realistically reflect the work of the team, and also showed staff that their views were listened to, considered and acted upon.

It was about defining what they wanted to deliver, what were their team objectives, stating those really clearly and explicitly.
Senior manager

Hopefully because they have been involved in giving their opinions and airing their issues, then they can use whatever solutions or actions they have to provide the solutions that changes the working.
Staff

It does have a very positive effect on the team because people feel they are actually being listened to.
Staff

By sharing this process of objective setting, the team could better appreciate how each of them contributed to achieving the overall team goals. The participative nature of objective setting in the team-based working interventions also ensured that all staff groups felt part of the team and this helped break down barriers between the various professional groups, which previously marked divisions within the team.

[It] also engages very much the staff to help them identify what their objectives are within the team, what their contribution is towards fulfilling that objective, and also to identify how the team can work collaboratively together.
Senior manager

It is a sense of shared purpose, shared objectives, being very focused about what it is the team are there to do, and also being clear about how the team members will work with each other to resolve any potential issues that may arise. People feel they have a greater sense of purpose when they come to work, understand what they're there to do, feel happier in their job.
Senior manager

> *Team-based working has made some positive contributions to breaking down barriers between professional groups, and hierarchies.*
> *Staff*

Clear objectives and goals, identified through the team-based working intervention, appeared to characterise good teams and this was linked to good patient care in the experience of one participant, an experienced team-based working facilitator.

> *Generally we can say that the teams that seem to be working well together have good leadership, have a good sense of purpose, clear objectives, do seem to provide a better service, anecdotally.*
> *Senior manager*

A key benefit of the team-based working interventions, mentioned by the majority of participants, was that people in the team got on better together. This led to an improvement in the atmosphere and morale of the team. If people in the team got on better they would help and have more respect for each other. This helped enhance staff morale where coming to work was a nicer experience than prior to the team-based working intervention.

> *We'd all get on and really help each other, not just say we're helping each other.*
> *Staff*

> *Since they've implemented team-based working… some staff will say they've got more respect for each other.*
> *Senior manager*

> *One person said to me it's so much nicer to come to work, the atmosphere is better, it's much more pleasant, people are talking to each other.*
> *Senior manager*

This improved atmosphere led staff feeling less stressed as they felt part of a team, and this in turn led to lower sickness and staff turnover, and consequently to working better and delivering better care and services to patients and other staff within the trust.

> *It certainly would translate into improved productivity, reduced sickness absence, and stress levels at work and things like that. Ultimately when staff feel happy in their job, and are feeling good about coming to work on a day-to-day basis, that directly correlates to the way in which they deliver services to patients and service users.*
> *Senior manager*

> *We've had teams that have reported significantly reduced sickness levels, improved retention of staff...*
> *Staff*

> *When you have that feeling of being part of a team it's a lot less stressful.*
> *Staff*

A better team atmosphere in the team was also linked to better communication, which in turn was directly related to improved patient care and in particular, to fewer patient complaints. One participant described how the majority of patient complaints in his Trust related to communication problems, and by improving communication between team members and with other teams patient care was improved.

> *If you look at patient complaints, I don't know if it's three quarters of them, where patients raise their concerns with us, it's mostly about breakdown in communication, sometimes with them directly, but mostly between individuals working in teams, if you were to break down the complaint into its component parts. Better communication makes the team more effective and productive.*
> *Senior manager*

> *I think it has been appreciated by the staff, they have understood they have a more transparent and open way to communicate information.*
> *Staff*

Better communication and working relationships with other teams was identified by the majority of participants as the main and most important benefit of the team-based working interventions implemented in their trusts. Numerous senior managers and staff used the word silos to describe how in their trusts many departments and teams worked independently and to a certain extent in isolation from others, thus creating several disconnected groups rather than an inter-linked service across the organisation.

> *[The intervention] brought together people across the organisation and it brought people out of their silos. It [has been] about getting people out of those silos ... [as] they just get so entrenched that they cannot see the bigger picture and the other things that are going on, they only see their area and it was really helpful to make people think outside those boxes.*
> *Senior manager*

This isolated silo working resulted in teams not seeing the bigger picture and not seeing how their actions or decisions impacted on other teams. Team-based working interventions enabled people to meet people from other areas, find out about their work, the difficulties faced, and how their actions teams impacted on them. This

improved understanding and communication between teams and helped to foster improved working relationships.

> *We've got a lot of silos. I see lots of light bulbs coming on when I say to people well this conflict you've got with people in [another department], [so] lets look at that, is it really with them or have you ever sat down with [them] and said here's what we're expecting, can you deliver it and if not, what can you? So we don't even do [a] service level agreement between teams it's just much easier, because we have got a blame culture, to say 'it's not us it's them'.*
> *Senior manager*

> *I feel it's [the intervention] been very beneficial for that because it really got people together, it got people to listen to other people's difficulties and problems and to learn from each other.*
> *Staff*

> *[Team members] actually understand what the other teams in the Trust that we work with [actually] do. There's always been an undercurrent of well what do they do over there? ... There [has been] a lot of misunderstanding about [other] teams and what [other] teams actually do.*
> *Staff*

Learning from other teams and departments within the trust during the team-based working interventions also gave people the opportunity to see other ways of working that could potentially be transferred to their own areas.

> *[The intervention] really supported team leaders in really trying to get their team to be involved in discussions about the service and structure of the team, and about how thing were done in their local area. When people think about new ways of working as well, so thinking outside the box, allowing people to attend that sort of programme allowed them to discuss with others on the programme from other departments how they would do things elsewhere and that encouraged people to look at different ways of working.*
> *Staff*

As identified in Chapter Four, participants commented on how managing day-to-day work often meant there was no time to reflect on existing practice, and consider a different way of dealing with issues and approaching problems. However, the team-based working intervention gave teams the opportunity to review how they were working and discuss, with the input of everyone, what possible alternatives there were.

> *It was having the time to sit down with each other and talk things through. They [team mebers] had worked the same way for years and they had the time to say this is the way we've always done it, doesn't necessarily mean it's right and how can we do it differently. They could step off the treadmill for a day.*
> *Staff*

So the team-based working facilitation helped them see that they actually could change things and it is not all about having more staff or more resources. Sometimes it is about the team itself, thinking can we do something different?
Staff

Participants also noted numerous benefits from the team-based working interventions for individual members of teams (rather than the team as a collective entity). Just as the intervention helped people learn more about other teams and departments, interventions also helped people learn about each other as individuals, what their role and responsibilities were and what tasks they carried out. This meant everyone in the team was clear about who would be doing what tasks, which improved communication and enabled the team to function better and more efficiently.

[The intervention] was in order to make things much clearer so the incentive for us is that it's going to make everybody understand clearly whose role is what and when it should be.
Staff

The biggest things for the team members, the biggest light bulb seems to be around role clarity.
Senior manager

It's about everybody in the team understanding the roles and responsibilities of everybody in that team and what they bring to it.
Senior manager

Senior staff interviewed also spoke of how, due to the team-based working intervention, they now knew their peers across other departments in the trust much better, making cross team working much easier.

The other great benefit is the better knowledge of each other at the same level. We have met, my colleagues and clinical directors, have met many times during these sessions, had lunch together etc so we know each other much better. And this is certainly the second great benefit next to the communication that we know each other better and we know, it is easier for us to interact, we can call each other much more freely because we have that same understanding.
Staff

Having a greater understanding and clarity about roles and responsibilities also helped individuals know who in the team to call on for help in particular areas; the experts in the team were more readily identified. This had major benefits for patient care as each member of staff knew who to contact for advice or support to ensure the patient received the best possible care.

I know who to find to talk to, to see if they can help us to deal with [issue] so you know who you're going to deal with so you can resolve the issues.
Staff

They can be directed to the individuals in the teams that have strength in different areas so that a service user will be able to perhaps be allocated to a worker who has either got some specialist knowledge or interest in that area.
Senior manager

A major benefit to individuals from team-based working interventions was identified by participants as empowerment. Team leaders/managers were able, through team-based working to empower the junior staff to take on more tasks and responsibilities. This helped staff feel motivated and challenged at work and able to develop their roles within their professional capabilities.

Whereas before they would, a band 5 would hand over to a band 6, now they're actually working through their work with the support of the band 6. They're [now] taking on new competencies, and looking to see what they can develop rather than what they can hand over [to others].
Staff

And, a manager expressed that *people do feel empowered to take decisions and come up with ideas* which help develop and improve the service offered. Empowering junior staff also meant that team leaders/managers could delegate work and reduce the amount of day-to-day supervision and micro-management they did. Not only would staff feel trusted to carry out the tasks assigned to them but it also freed up a large amount of senior managers' time.

Team leaders having more time and less of that people constantly coming and asking 'what shall I do about this, what shall I do about that'.
Senior manager

The senior managers have got more time, they're not taking those decisions that other people could take.
Senior manager

Feeling trusted and valued as a member of staff was considered by participants an important outcome from team-based working.

In any working environment you have to feel valued and purposeful and understand, feel valued and the whole world of team-based team building sort of covers those ideas.
Staff

> *It's encouragement, it's recognising the true worth and value of people rather than treating them as a commodity; if you recognise when they do things good that's always important.*
> *Senior manager*

Team-based working interventions achieved this primarily through taking the opportunity to reflect on performance and recognise the work achieved by everyone.

> *When you have an opportunity to sit down and look at the team, you can actually see how good it is because if you're swamped with work you don't always recognise that. So it was a great chance for everyone to recognise how bloody hard they've worked and how well we've done and that can be forgotten in the stress of what we do.*
> *Senior manager*

One senior manager interviewed highlighted the link between valuing staff and delivering better patient care with the use of team-based working.

> *So [the intervention was] designed to improve the quality of care and we do that explicitly, we do that through valuing people.*
> *Senior manager*

Overview

The analysis presented in this section would appear to indicate clear benefits of the team-based working interventions. In Chapters Two and Three we identified the potential negative affects on psychological well-being and higher levels of injuries and stress, errors and incidents and violence, bullying and harassment for individuals working in poorly defined 'pseudo teams'. Specifically, we identified that one of the common reasons for having poorly defined 'pseudo teams' was that team members expressed a lack of clarity over the roles and responsibilities of team members. This section would appear to indicate that team-based working interventions had helped to improve team members understanding of their own and others' roles in their team; which had, as a consequence, helped improve communication between team members within the same team, and helped to improve cooperation and communication with other teams in the same organisation. There were other noticeable benefits arising from the interventions, specifically that by clarifying roles and responsibilities this had foster an environment whether staff felt valued and trusted, and lead to staff feeling empowered to take on other roles and tasks, and more generally for teams to explore more innovative ways of working.

5.3.2 Barriers and facilitators to implementing team-based working

Next, we tried to the main barriers and facilitators to implementing team-based working interventions. The analysis reported in the following section identified a large number of possible barriers and facilitators, and these have been grouped under three main categories:

i) Managerial barriers and facilitators,

ii) Organisational barriers and facilitators, and

iii) Individual barriers and facilitators.

These are summarised in table 5.4 and are then discussed in more detail in the following sections.

Table 5.4: Summary of barriers and facilitators to implementing team-based working

Theme	Barrier(s)	Facilitator(s)
Managerial	• Poor leadership	• Senior management support for team-based working
Organisational	• Restructuring of trust – new hospitals/divisions • No performance management for teams • fire fighting – no time for anything else as patients are priority • Low morale	• Paying for training/ team-based working facilitators • Giving staff time to attend training • Supporting teams with awards • Organisational culture of team-based working
Individual	• Resistance to change • Not sure what team-based working is and what use it will be	• Willingness to try team-based working and new ways of working • Positive attitude and approach to team-based working • Identifying how team-based working could be of benefit

Managerial barriers and facilitators

Support from the higher levels of management appears to be critical; the Chief Executive and Board need to be actively supportive of team-based working. This support and involvement was seen as beneficial for several reasons. Having top level support often gave team-based working an importance within the Trust; it was seen as an issue the Trust as a whole supported and endorsed.

> *We had a steering group, which the chief executive sat on, she in fact chaired it so she had an interest in driving this forward and that kind of gave it a lot of kudos and also ensured that it was always being pushed and the key principals of it and the impact it had on key factors in our hospital were being measured but also improved. .*
> *Staff*

> *The things that have helped have been the way the executive directors worked together [as a team]…, that [sends] a very loud message to the organisation that we support [team-based working].*
> *Senior manager*

This top level support could be demonstrated by, for example, the Chief Executive attending open days/meetings about team-based working and asking about it. However, it was not simply enough for management to say they supported team-based working, they had to demonstrate this through their actions and their own way of working – leading by example in effect. If top level management supported team-based working and used it themselves, their way of working would cascade down through the management structure to the whole trust. Additionally, practical support would be available for training and development.

> *Our chief executive is very supportive of [team-based working] – he's been to quite a few events where he's been involved and he will listen to you, and ask how you think it's going on the clinical. [Senior managers] are very supportive of it, definitely.*
> *Staff*

> *There's been the addition to that of behavioural change in some of the senior people which has to make a difference.*
> *Senior manager*

The support from top management, especially from clinical directors, was especially invaluable in implementing team-based working across the trust. Senior management at this Board level could help staff understand what team-based working was and how it could be of benefit to them and their patients drive the concept and help maintain the momentum to implement it. Without this input, some participants felt staff were reluctant to engage in team-based working.

> *[Consultant surgeons] actually met with the [clinical staff] and explained the situation and got them on board, you know, he took the time out and went through it with them and explained why it's important and how it worked and then they were fine, they were on board then.*
> *Staff*

> *It's never going to work unless there's a team leader or sponsor who's really behind it and really sells the vision and be the driving force and [otherwise it will not be effective].*
> *Senior manager*

Linked to this is the facilitator to implementation of good leadership. Participants reported that without a good leader team-based working would fail. A strong leader is needed to encourage and guide the team to implement team-based working and help the team overcome any barriers. The leader is also the one that needs to be responsible for helping the team identify and clarify the objectives of the team-based working intervention so staff know what they are aiming to achieve and what the intended outcomes will be.

> *For me the leadership, if you've got the right leadership it's going to work, regardless of the team, the members in it, because the person leading the team, the performance managing of them, doing all the other stuff, and they're also going to be painting that picture of a vision and making sure things happen.*
> *Senior manager*

> *I'd like to think it was more egalitarian than that, but if you don't have good leadership you have no chance of succeeding I don't think.*
> *Staff*

Several participants noted that some team leaders may be reluctant to engage in team-based working because they perceived that they would lose some power and control of the team. The participatory and empowering nature of team working (as discussed earlier) may not suit some leaders' managerial style and thus prevent implementation within that team.

One of our divisional managers that just is not keen on it at all, because she likes it done her way, and team-based working's not about that, it's about having everybody's opinion, and how can we move things forward, and she isn't really…I think it's her management style. She micro-manages and likes it to be done her way. That's not what team-based working covers. It is very difficult when you've got an overall manager who is just not into it.
Staff

For a small number there's also an element of misunderstanding and fear, if I have a lot of people that can manage themselves, what happens to me, do I lose my control? Do I lose my job? And so some of it is down to confidence and willingness to let go, [and] sometimes about being willing to take a risk and take a longer term version.
Staff

Overview - Managerial barriers and facilitators

The analysis presented in this section has illustrated that support from top level management appears critical to its success in terms of leading by example, raising its profile and importance and providing training. Good leadership to guide the team and identify objectives of team-based working would also appears important – conversely, team leaders who are reluctant to engage in team-based working because it is not compatible with their managerial style can often be a major barrier to the success of team-based working.

Organisational barriers and facilitators

When asked what barriers there were to implementing team-based working the unanimous response was time.

> *Too much work to do, not enough time.*
> *Senior manager*

> *The major barrier is people getting time and space to do this kind of work.*
> *Senior manager*

The NHS, participants explained, requires 24 hour care to be provided to patients, and they are the priority for all staff. Releasing staff to attend training, meetings or away days and so on to implement team-based working was extremely difficult for teams providing patient care, as clinical cover had to be maintained at all times.

> *Barriers - the one is [lack of] time in the health service, [as it is a] 24 hour a day, 7 days a week [so] it's difficult for individuals to take the time to come out of the workplace to do their learning … time is always precious and therefore [releasing staff is] a difficulty for us.*
> *Senior manager*

> *The biggest investment actually from the service is in terms of releasing people…, which does need quite a bit of commitment from the managers of the service really.*
> *Senior manager*

> *The biggest problem is time and certainly when you're working with ward teams, you can't close, you've got a 24 hours service to provide so it's making sure you've included everyone, or given everyone an opportunity to be there, that's can be difficult and we have tried to address that by working with other wards and getting them to provide some sort of cover but that takes a little bit of arranging.*
> *Staff*
> *We actually are quite creative, we've had management teams going and covering wards so we can get all the ward staff, we've run quite a few half-day events rather than full days… .*
> *Staff*

There was a common thread throughout all of the interviews and focus groups, that staff in the NHS are under extreme pressure to deliver good quality services with insufficient resources (money, equipment and staff). This meant that staff felt they were often fire fighting as many referred to it, and did not have capacity to consider new ways of working and implementing team-based working while they were so busy trying to carry out the essential clinical tasks.

Workload, that's the resource thing, people are just so busy surviving today to think about tomorrow.
Senior manager

Challenges have been resource issues with regard to staff taking time out of their working day to attend the programme; that can be very difficult when it's a busy acute Trust and some days there's a lot of crisis management going on.
Staff

For a whole team to attend a meeting or similar event, not only did all staff have to be available but cover had to be brought in from elsewhere.

Time! Because you need the whole team for it to be effective the whole team need to attend don't they? Trying to find a time when there was no annual leave and no sickness and the 2 other teams in the zone would be able to cover that team's case load for a day.
Staff

This is particularly difficult when staff work part-time or work shifts to provide 24 hour cover as some staff would inevitably have to come in when they are off duty. However, some teams which did not provide direct patient care and worked typical office hour indicated that coordinating meetings.

Its probably easier for us to do it [as) we haven't got patients waiting so it's easier for us to take time out to get things sorted.
Staff

If it's going to be implemented it's got to be, you've got to have everybody together. You can't do it with just a few of you. It's good for the team. You've got to get everybody together and that's always difficult when you've got lots of part time staff.
Staff

That's what helped me was that my staff don't work weekends or nights and we're all 9-5 Monday to Friday so it was much easier to create that team environment. Despite the fact that we're all located all over the place in different areas the fact that we work similar hours actually helped.
Staff

As this last quote reflects, location is also an issue when trying to get the whole team together at one time. Many trusts, especially mental health trusts, are spread over a large geographical area with some members of the team in differing locations. Even when teams are within the same building there can be splits where differing professional groups within a team congregate or have offices in different areas.

Practically there's always the same problem, time, making it, organising it, cover in the team while you try and get everyone in the same place. There are always logistical problems.
Senior manager

And obviously professional divides as well or simply just the place where people congregate, the physical space just divides them up and never the twain shall meet so that again makes it really difficult to reinforce the concept of team-based working with this group.
Senior manager

As noted earlier by participants, the NHS is often under-resourced and patient care is the priority of all staff and consequently, they reported, a barrier to implementing team-based working was that staff were frequently pulled from attending training and meetings at the last minute to deal with a more immediate issues if a ward for example was understaffed.

[We] had a training course running this morning, [but the] deputy director of nursing walked in and pulled them all [out of the session and] sent them over to clinical because we had to open up an extra ward…..
Staff

Although it happened with all training and was not specific to team-based working interventions, the consequences of this are that team-based working (and other training) is perceived as not important and/or the staff as not valued enough to be allowed the time to attend. One Trust had supported staff to attend team-based working training, and those participants felt it indicated a high commitment to team-based working.

The amount of nurses, it happens every single day, nurses are booked onto particular training, I'm talking about mandatory training, and at the last minute cancelled all the time. And that's a regular occurrence and it makes people seem not very valued or the purpose of the training not very valuable if that happens.
Staff

And also it was a little bit frustrating I found because there were certain people that were pulled out by their various department heads not to attend… And then it was quite disappointing for us because here was something that's been paid for by the Trust and people are still being pulled. Surely, we all felt it's 1 day every 2 months, surely that person can be released, there must be somebody else in the building that can deal with that problem!
Staff

Well there's the commitment from the Trust, the organisation. You know if the Trust hadn't been committed in the first place to release, and 120 people 6 study days that's a lot of time, about 2 years worth of work... it was a lot of commitment from the senior executive team.
Staff

The Trust meeting any financial costs of the team-based working intervention (whether that is in the form of an away day, training or outside consultant) was considered a facilitator to its implementation. Many teams/departments had limited funds so it was helpful if the Trust would meet the cost of these as it, again, indicated a high level of support for the concept and promoted its value to staff.

We don't have to pay for any of the meeting rooms or anything like that, we have the facilities available to use that. .
Senior manager

And I think the fact that, facilities are always worried about cost, that we said we had [to] fund it centrally for us to do this pilot piece of work so that removed that one barrier to say yes we'd cover that.
Senior manager

Where such funds were not provided centrally by the trust, a couple of participants said they found alternative sources of finance, as they felt that team-based working was so important. This perhaps reflects the team leaders' commitment to team-based working but shows that removing the issue of finding money to pay for any intervention is beneficial.

We have found money to do that work but there isn't a budget for it. But you make room for that. I think that's really important.
Staff

Of course the money as well, the funding so the team have a nice venue and are taken out of that work context, that was sort of difficult too. We had some donations from patients over the years so I used that.
Staff

Three of the trusts taking part in the research had a dedicated department providing team-based working consultancy services to teams. The staff from the trusts who provided the facilitator services to individual teams were released from their main duties to carry out this work and received no extra remuneration for this. However, the core team-based working team was funded by the trust and having this acknowledgement and support showed staff that team-based working was important.

Participants from these trusts all reported that they felt team-based working was integral in the trust culture.

> *Having the dedicated resource within our organisation has helped, [and] having people who know how your organisation works, knows individuals, knows the teams, you're always off to a better start.*
> *Senior manager*

A major problem for several participating trusts was the major restructuring that was currently or had recently been happening. One trust had recently had a major restructuring that resulted in a large number of staff being made redundant and teams being rearranged. Not only did that have a severe impact on staff morale, it also prevented team-based working interventions from being as successfully implemented as they might otherwise have been. Part-way through team-based working training, staff would be made redundant so other team-based working facilitators or team leaders would need to start the training again. Sometimes new staff would join the team as part of the reorganisation making it difficult to maintain any momentum of implementation and consistency within the team.

> *We did the first workshop and everyone was great and [with everyone] all on board [but] by the second workshop we had a load of redundancies and we lost a team. [This] practically wiped out my office, [so] we had new people coming into the team and so it was just all over the place for a few months really. So it's only been the last 3 or 4 months that we've been able to start getting back into it really. And that was quite a big barrier.*
> *Staff*

> *And sometimes the facilitators, I've had 3 facilitators because they keep leaving, I'm [now] on my third!, this is over quite a long period of time, and it is quite hard for them to keep the other people encouraged and motivated some of the time, especially with everything that's going on in the Trust as well because there's been a lot of things going on at the same time as team-based working. I think it's been quite hard to implement and continue as an ethos.*
> *Staff*

One participant noted that it was the stability of core members of the team that was a facilitator to successful team-based working.

> *And the fact that we're fortunate [in] that the majority of key players are still in place. With every NHS area someone keen and excited starts and moves on and it falls flat on its face really. That fortunately that hasn't happened.*
> *Senior manager*

One trust had created new hospitals over recent years and a senior manager felt this instability was very disruptive, not just on the team structures (so making team-based working interventions difficult to implement) but also on staff morale.

> *There's a constant state of flux, we opened a brand new hospital two years ago, [and] we're opening another one next year, so just as one pool [of staff] begins to calm down, you stir up another – [we make changes] for good reason in terms of improving services and so on, but inevitably that has a disruptive effect on people's sense of security and mood at work. And, of course, we're creating new teams all the time. But you're creating brand new teams, which, however well-intentioned people are very disruptive to people's sense of calm and contentment.*
> *Senior manager*

Participants felt that such low morale meant staff were uninterested and/or resistant to team-based working as they had undergone so many changes that they did not feel able to commit to something new being implemented by senior management or understand and appreciate how it could be of value.

> *I got resistance initially to [changes], they felt quite jaded because they'd been through a restructure and they'd lost some colleagues and stuff and as a result people had gone.*
> *Staff*

Participants also felt that a major facilitator to implementing team-based working within individual teams was an organisational culture of team working. Some felt this had been achieved in their organisation whereby team-based working underpinned a large number of systems and activities in the Trust. This emphasised its importance and showed that it was integral to their way of working. Achieving this culture can be difficult and takes time but participants at these trusts felt it had been accomplished by explicitly informing new staff joining the trust about team-based working, promoting training and allowing people to get involved.

> *What we've tried to do as well is, by trying to build the whole of the ethos about team-based working into what we do, you know I talked about the committed to excellence award, the corporate induction, when we have new starters we talk about team-based working at the induction. By trying to embed it in different systems and processes I think that helps to facilitate people who are more open to this let's have a go at team-based working stuff and see what it can do for us. It builds it into everything that we do so people get, they are aware of and start to understand the notion of team-based working then they will see that there's a programme that the Trust puts on that can start to facilitate them implementing team-based working.*
> *Senior manager*

Well, corporately initially it could seem quite, say, not a vague concept, but quite something that wasn't very tangible, that people would find difficult to try and understand, but actually as people began to use it more and more and more it became very much more accepted as part of the day-to-day way we did things within our organisation.
Senior manager

Overview - Organisational barriers and facilitators

The analysis presented in this section would appear to illustrate significant organisational barriers to implementing team-based working. Firstly, there are often difficulties in maintaining clinical cover while staff actually attend training sessions, especially when teams provide 24 hour care it can be extremely difficult to arrange for the whole team to attend meetings or training sessions. Team member workloads were also also identified as potential barriers, where staff are often fire fighting and are constantly under pressure, it means they do not have the spare capacity to consider new ways of working. These pressures meant that it was often the case that staff were pulled from team-based working training at short notice – this undermines both the perceived value of team-based working and of the staff attending. Resources allocated towards interventions by Trust management are also an important indicator of the relative value and importance of the intervention. This also relates to the prevailing organisational culture within the Trust, where there is a requirement for Trust management to emphasis the importance of effective team-based working from the moment people join the organisation.

Individual barriers and facilitators

Individual barriers and facilitators to implementing team-based working were noted by many participants. A resistance by staff to try team-based working and try new ways of working was a considerable barrier. Sometimes this resistance was just down to that individual's personality, sometimes as a result of a lack of awareness of what team-based working is and what use it may be (an issue that will be discussed later).

> *The barriers you just do get, you get individuals don't you who are for one reason or another are just against it either because they don't understand it or they don't like change or whatever.*
> *Staff*

> *There's always some resistance by individuals in an organisation of this size. Sometimes it's about personalities.*
> *Senior manager*

> *You have always got your factions who well we already work as a team [who will say] 'why do we need to do this?' It's usually these people who think they work as a team member who often actually causes [the] factions in it. They wouldn't actually voice that they're resistant because they know that to say I'm not a team person is a very bad thing these days but you know that they're not really engaging in the process even though they are going through the motions.*
> *Staff*

Conversely a positive attitude towards team-based working and change was highlighted as a major facilitator to implementation.

> *[Staff] were positive about it. On the whole I think people have been quite positive about team-based working.*
> *Staff*

A few participants commented that the whole team didn't have to be positive as long as there were some key individuals who were, as they could become champions of team-based working and encourage and motivate the others.

> *Individuals who are particularly keen and supportive, you know, people who genuinely believe this sort of thing is the right way forward and it worth investing the time, the energy and pushing the effort to make it work effectively. So your kind of champions I guess is what I'm describing here.*
> *Senior manager*

> *Because of her positive attitude she was able to support the team in the stress of knowing that this was going to happen, and I think because she was so positive some of that actually spread to her team colleagues.*
> *Staff*

Some staff may be nervous of trying something new but as long as staff were committed to trying and putting in the work required initially, that facilitated the implementation team-based working. The importance of emphasising how team-based working could be of benefit to staff and patients in achieving this implementation was clear from participants' comments.

> *You need to have people committed from the start. I think that's the thing here, people were committed. We were committed and we were interested and wanted to improve the service and make change and realised that it had to happen.*
> *Staff*

> *If [staff are] doing it just because it has to be done, it's doomed to failure. If they're doing it because they believe in it - it can make a difference, and they have passion, enthusiasm and can communicate that, [it] is going to make a huge difference.*
> *Staff*

This was another important facilitator in implementation. Staff needed to see evidence of how a team-based working approach could aid their work, particularly with patients.

> *Now when we ran out of the documentation [on team working], suddenly everyone was complaining that we didn't have it, because they suddenly realised how much easier it was with the printed documentation. So suddenly the complaints turned around a hundred and eighty degrees in which people wanted, so that was a very lucky break for us, and that was really the tip-point in which everyone suddenly came on board because they knew that it was making life better for the patients and easier for the staff.*
> *Senior manager*

> *Some people have implemented some of it because actually they've seen small bits have actually been of benefit to them.*
> *Staff*

Several participants reported the value of sharing good practice and promoting achievements in helping to achieve recognition of how team-based working could be of benefit.

> *There has been some good examples of where a team-based working approach has actually made a difference, and it has helped decision-making, and has helped resolve some difficulties – you know, that harks back to the sharing good practice that I talked about at the beginning, where I think there are still, there are continuing examples of where that works.*
> *Staff*

> *I'm a full believer of the jolly green giant, that people will start to get jealous and see that things are better in some areas than in others and will want to be like that and work out why and that helps you change culture quite a lot.*
> *Staff*

A number of participants felt that some staff, especially line managers, were often not aware of how team-based working could improve their current way of working and thus were not motivated to try it. However, a number of managers reported they were uninformed what the intervention actually represents, so this had inhibited its implementation.

> *There's definitely an understanding barrier – I don't get the role. I'm too busy, I don't need them. Lack of understanding of the concept of working as a team, in some cases, and that's an appalling generalisation, but there are still small numbers of managers who are very hierarchical, very task-oriented, very focused on service and delivery. And they don't really get the effect that evolving and developing the team can have. It's very command and control if you like.*
> *Staff*

> *Firstly there's a lack of understanding around what team-based working is, I think one of the other team coaches gave me an example where a manager was putting on an event, and actually said to the team admin support, you don't need to be there, and that for me shows a real lack of understanding and lack of clarity about what team-based working is about.*
> *Staff*

In terms of running a team-based working intervention, participants had some suggestions for facilitating its success. All who commented on this aspect mentioned advance planning as key. This involved identifying in advance the desired aims and outcomes from the team-based working intervention, so that the intervention could be structured to meet these and the day was perceived by the team to have been of value.

> *I suppose having some clear aims and objectives are really key because if you haven't got that, [TBW facilitators] are working the dark really. I could imagine, but I haven't experienced it, that if it weren't the case, if you weren't clear about what you're trying to achieve and they weren't so disciplined it would be another one of those pointless meetings with poor outcomes.*
> *Staff*

> *The element of flexibility in implementation helps… as opposed to you need to this, you need to do that, then you need to do that, because, we've found, one size doesn't fit all.*
> *Senior manager*

An aspect of the actual intervention that a large number of participants mentioned as a problem was the lack of follow-up afterwards. Many felt that after the intervention teams were left to carry on without any support and that this would have been beneficial, although few of the trusts provided this. One senior manager who ran team-based working training had identified this as an issue and had started to arrange follow-up with regular emails and meetings to help maintain the motivation and confidence of the team-based working facilitators.

> *I think ongoing support is what people need. People can't do this on their own and they need ongoing support and facilitation and I think unless that is provided or they've got access to it, it's really difficult, a lot of teams just grapple with it and go off on their own and they do need some actual support, some outside facilitation etc. Whether that's a facilitator coming on or maybe they could join a peer group or action learning set or something I think there needs to be something in place to support teams or team leaders who are trying to implement this.*
> *Senior manager*

> *[The team-based working training team] were just so supportive leading up to it and you know they phoned a couple of times and I've had some emails afterwards just to make sure that everything's OK and they've said they are looking at how you support teams afterwards but at the moment it's not something that the Trust do as such.*
> *Staff*

> *They don't necessarily follow-up although there was a follow-up questionnaire... but I don't think it's something the Trust do routinely.*
> *Staff*

Summary - Individual barriers and facilitators

The analysis presented in this section would appear to illustrate significant individual barriers and facilitators to implementing team-based working. Firstly, it would appear to be critical that staff are provided with clear evidence of how team-based working can be of benefit to them (as individuals and team members), and also to patients. Secondly, where team leaders and managers clearly communicating and identifying the desired aims and outcomes of the intervention prior to implementation this often helps with its success. This could then help reduce resistance to the intervention by team members.

5.4 Summary

Impact of team-based working interventions

The analysis presented in section 5.3.1 would indicate there a large number of positive effects for staff and patients from implementing team-based working interventions. Firstly, the interventions had provided opportunities for teams to take time out from the usual day-to-day tasks to identify and clarify the team's objectives and reflect on performance. Secondly, the interventions often included *all* members of the team, which meant that everyone felt a part of the team, their opinions, experience and suggestions were valued, and their contribution was recognised. Thirdly, the interventions had helped improve team members understand of the roles and responsibilities of all team members (including themselves), which resulted in better internal communication and cooperation within and between teams. This helped improved the morale of team members making teams a more pleasant and less stressful to work, and also resulted in teams providing (more coordinated and) better care to patients. Finally, the interventions had empowered staff to take on more tasks, within their professional capabilities, without constant supervision. The benefits were twofold: for managers it freed up time to concentrate on other aspects of their role, and for team members it made them feel valued and trusted and generally more motivated and satisfied.

Our analysis has shown numerous ways in which team-based working has positive benefits to individuals and teams, and especially to patients. Findings presented here complement existing published work, as discussed in Chapter One. Lord Darzi in his report, *High Quality Care for All – NHS Next Stage Review*, highlights the values of the NHS, and that team-based working as being an integral mechanism for delivering healthcare. A team-based working approach actively engages and empowers all staff in decision making and driving service delivery; respects and values their involvement and contribution to patient care; and helps teams work and communicate better within themselves and with each other so that the Trust can work together for patients, putting high quality patient care first.

Barriers and facilitators to implementing team-based work

The analysis presented in section 5.3.2 would indicate that there appeared to be three main categories: i) managerial, ii) organisational, and iii) individual level barriers and facilitators to implementing team-based working interventions

Firstly, top level management support was essential in facilitating implementation and a major influence on its success and could be demonstrated in a number of ways. Actively using a team-based working approach themselves at Board level demonstrated leading by example and showed that it was considered an important and valuable way of working. Practical support took the form of paying for team-based working training, facilitation and other interventions and ensuring that staff time to participate in these was protected. Pulling staff away from training, regardless of the reason, undermined its perceived value. The impact of leadership at lower managerial levels as well was often noted. A good leader facilitated implementation by helping to identify and clarify the desired objectives and outcomes of the intervention, helping the team to overcome any obstacles or difficulties, and helping ensure staff were supported in attending team-based working events. A poor leader, in contrast, inhibited the adoption of team-based working because it did not suit their personal management style or because they did not understand the concept or benefits of working in teams.

Secondly, time was identified as a major organisational barrier to implementing team-based working. Specifically, the difficult for clinical staff, many of whom are responsible for providing 24-hour care, gathering the whole team together was often cited as an important factor in the success or failure of the intervention. This represents a difficult, but not insurmountable, challenge. To overcome the problem, top level managerial support is required to provide the finance for extra staffing to cover the provision of clinical care when teams attend team-based working interventions. Numerous other organisational barriers were identified. For example, in some trusts, team-based working interventions had coincided with major restructuring, and staff redundancies, which has resulted staff reporting low morale and suspicion about the reason for the interventions.

Finally, our analysis would illustrate that a major individual level facilitator was emphasising to staff the potential benefits to themselves and to patients from team-based working. Using positive results and outcomes from other teams was useful in demonstrating what benefits adopting this approach could have for them. Additionally, having some key staff who were champions of team-based working and whose positive attitude and approach could motivate the rest of the team was an often mentioned facilitator.

6 *TEAM-BASED WORKING: CONCLUSIONS AND RECOMMENDATIONS*

In this chapter, we provide an overview of the main research findings presented in the previous chapters, and provide a series of recommendations which NHS Trusts can follow to promote and implement team-based working.

Given the body of evidence about the benefits of effective team working in health care, we needed to discover what factors promote effective team-based working in NHS organisations. The overall challenge, and the aim of this research, was to answer the central research question *how can we build NHS organisations that ensure the effectiveness of work teams in providing the best quality patient care?* From this we also had a number of research objectives:

1. To determine whether, and which aspects of, team-based working predicts Trust performance, patient satisfaction and staff well-being.
2. To determine whether an increase in the level of team-based working predicts Trust performance, patient satisfaction and staff well-being.
3. To determine whether leadership, culture and HR support systems influence levels of team-based working in the NHS.
4. To determine whether team-based working interacts with HR support, culture and leadership to predict Trust performance, patient satisfaction and staff well-being.
5. To evaluate the effects of interventions in NHS Trusts that seek to promote team-based working upon patient care and delivery of services to patients.
6. To identify the barriers to, and facilitators of, implementing team-based working in NHS Trusts.
7. To determine which aspects of interventions to develop team-based working most influence the success of the interventions.
8. To determine what strategies the most well developed team-based organisations pursued in order to effectively implement team-based working.
9. To develop practical guidelines for NHS Trusts for how to implement team-based working successfully.

6 TEAM-BASED WORKING: CONCLUSIONS AND RECOMMENDATIONS

To answer the central research question and research objectives one to five we used quantitative data collected from the national NHS staff survey to examine whether well-structured 'real' team-based working in NHS Trusts was associated with staff well-being, patient satisfaction and measures of Trust performance. This was supplemented by data collected from interviews with senior managers and focus groups with staff in fourteen NHS trusts which displayed 'high', 'increasing' and 'low' levels of 'well-structured' team-based working. To answer objectives six to eight we collected data from interviews with senior managers and focus groups with staff in eight NHS trusts that have recently introduced interventions designed to promote team-based working with the aim of examining the barriers to, and facilitators of, team-based working (e.g. top management support, organisational culture and structure, team leader and facilitator training); and also the impact on staff members and delivery of patient care.

6.1 Team-based working in NHS Trusts

Health service delivery requires many professionals to work in teams to deliver services to patients and services users. Although a large proportion of staff in the NHS report that they work in a team (nearly 90% of those who responded to the questionnaire), only about half of these reported that they worked in what we would call a 'real team'; that is a team which has clear objectives, where team members work closely together to achieve the team's objectives, and where teams meet regularly to discuss their effectiveness.

However, nearly 40% of NHS staff reported working in poorly structured and poorly functioning teams, in what we have called 'pseudo teams'. One of the overriding aims of structuring work into teams is that benefits are gained by pooling team members' knowledge, skills, and abilities together to complete a team task effectively and efficiently. We would argue that 'pseudo teams' fail to establish appropriate team objectives, do not ensure that members work closely together to achieve those objectives, and are unable to communicate effectively to enable performance improvement.

This failure of team working brings more adverse impacts and fails to achieve advantages. Indeed, our results would suggest that individuals working in such poorly orientated and poorly functioning teams were likely to report low levels of safety at work, and to suffer from lower levels of psychological well-being. Specifically, there were higher chances of experiencing work-related injuries and stress, physical violence or harassment, and generally being less satisfied with the jobs they perform.

There are also significant implications for NHS Trusts at a corporate level of having a high number of staff working in poorly structured and poorly functioning 'pseudo teams'. Our research showed that NHS Trusts which had a higher proportion of staff working in well structured 'real' teams (and thus a lower proportion of staff in poorly structured teams) reported significantly better Trust level outcomes. The data also showed that NHS Trusts which displayed an *increase* year-on-year of staff working in well structured 'real' teams also performed better on Trust level outcomes. Specifically, these trusts were rated as being more effective on measures of financial management, and were more effective at meeting the Department of Health's core standards, existing national standards and new national targets.

Why are poorly structured and poorly functioning 'pseudo teams' potentially so detrimental? Individuals working in 'pseudo teams' may feel less certainty, be unclear about individual responsibilities, and carry extra psychological burdens as a consequence. A likely explanation for this is that poorly structured teams create high levels of frustration because of their failure to meet expectations. We expect that a 'real team' would fulfil its objectives, encourage a strong sense of camaraderie, provide good social support and, importantly, members of 'real teams' monitor not only their own performance, but also that of fellow team members. Where these expectations are not met, 'team' members may become frustrated and disappointed, and this creates the conditions where work is not coordinated, checks and balances are not evident, and risky behaviours are more prevalent and can go unchecked by fellow co-workers.

An alternative explanation, consistent with research in social psychology, could be that the existence of poorly structured 'pseudo teams' creates a situation in which responsibility is diffused rather than clearly allocated (Latane & Darley, 1968). Consequently, there is no clear allocation of roles and responsibilities, and such team members may believe others in their 'team' will take responsibility for particular tasks. The analysis presented in this chapter would offer some support for this as we found that, amongst trusts with a higher proportion of staff working in 'real teams', team members expressed having a clearer understanding of not only their own roles and responsibilities, but also those of colleagues. This shared sense of understanding also seemed to facilitate a sense of greater cooperation and citizenship amongst team members, who were prepared to help colleagues out when required. This did not appear to be case with trusts with a lower proportion of staff working in 'real teams'.

Team level objectives are critical to team effectiveness and performance (Galdstein, 1984; Guzzo & Shea, 1992; Hackman, 1987; Hackman & Walton, 1986; Sundstrom et al., 1990). Teams should generate a clear mission statement, consisting of a number of specific and carefully stipulated objectives, to ensure that all team members share the same vision for their team and can clearly understand how it can be accomplished (Rosseau et al., 2006) and how they can combine their efforts and collaborate closely together (Weldon & Weingart, 1993). Clearly stipulated objectives should incorporate specified goals connected to the purpose of the team, and specify the level of performance that team members are expected to achieve (Weldon & Weingart, 1993). These goals should be challenging, yet realistic; such goals are likely to increase a team's commitment towards achieving its objectives (Knight, Durham & Locke, 2001). However, clear and challenging goal and objectives will only improve team performance if they are shared and agreed upon by team members, and if the team is committed to achieving them (Hollenbeck & Klein, 1987; West, 2004). Finally, team members who are committed to their team's objectives are more likely to persist in completing their individual tasks, as well as assisting other team members. Accordingly, all team members should work in a timely and co-ordinated fashion towards the achievement of common objectives for which they are all held mutually accountable.

1. All teams should agree upon and set five to seven measureable, clear and challenging objectives for their team. *All team members should be able to clearly state the objectives for their team.*

2. One of these objectives should be to improve the way the team works, and interacts, with other teams they regularly work with internally in the same NHS Trust, and externally with teams they interact with from other organisations (i.e. with other emergency services, local authorities and the third sector).

Managers play a critical role in setting and clarifying objectives. The role of a manager in a team is to ensure employees are clear about the task they are required to do, are supported in solving task-related problems, and feel valued, respected and supported. Effective supervisors will therefore offer employees solutions to job-related problems; share their knowledge and experience; provide those they supervise with coaching and guidance to improve their effectiveness; encourage team working; can be counted on to help employees with difficult tasks at work; and give employees clear feedback on their work. Supervisory behaviours that give employees a sense of being valued and encourage positive attitudes (increased satisfaction and commitment) include valuing the contributions employees make; giving employees recognition for effective work; asking for employees' opinions before making decisions that could affect their work; and helping employees balance their work and personal lives (e.g. Borrill *et al.*, 2000; West *et al.*, 2005).

3. All managers and team leaders should clearly define the roles and responsibilities for both individuals, via the appraisal process, and also those of the teams, via regular team meetings, they work in.

4. All managers and team leaders should promote a culture where they communicate regularly with staff and are open, responsive and supportive to staff.

Our analysis would illustrate that team-based working was influenced by the prevailing organisational climate that existed in the trust. Where there is a climate which promotes clear communication channels between management and staff, and where staff are involved in decision-making, then it is more likely that staff members will also work in structured 'real' teams. We found that many managers described a process of teams being used as a mechanism for information to be cascaded down from executive management, through the management levels to team leaders who are then responsible for briefing team members. Teams could also be used as a mechanism for staff involvement and the 'bottom-up' flow of information. What was apparent was that middle managers and team leaders play a critical role in this flow of information.

In traditional organisations, command structures include status levels – supervisors, managers, senior managers, assistant chief executives, and so on. In team-based organisations, the structures are more collective (West & Markiewicz, 2004). Teams orbit around the top management team and other senior teams (which themselves model good teamwork), influencing and being influenced, rather than being directed or directive. The traditional organisation has a chart with lines of reporting and layers of hierarchy, but the team-based organisation looks more like a solar system with planets revolving around each other and affected by the central force of the major planet (the top management team).

The role of team leaders in such structures is to ensure that their teams work as powerful and effective parts of that solar system and that they think about how the system as a whole works, not just their particular planets. To do this they must continually emphasise integration and cooperation between teams. Team leaders must be clear about which other teams they need to have close and effective relationships

with – identifying the precise ways in which each will contribute towards the effectiveness of the other. They must also ensure that the objectives of teams within this 'team community' are congruent and understood by all team members and, importantly, they should keep asking leaders of those other teams *'How can we help each other more?'*, *'What are we doing that gets in the way of your effectiveness?'* and *'Can we work together to come up with a radical new way of improving services?'* In traditional organisations, managers manage and control; whereas the role of the team leader in team-based organisations is to encourage teams in their organisations to be largely self managing and take responsibility for monitoring the effectiveness of their strategies and processes.

5. All managers and team leaders should be trained in techniques which help facilitate team working. Team-based working can be an important and valuable technique for promoting staff involvement.

However, our analysis would illustrate that large numbers of teams were failing to hold regular team meetings: indeed, nearly 18 percent of respondents worked in a team which displayed all the criteria of a 'real team' apart from meeting regularly. Staff identified significant time pressures and restrictions upon resources as preventing team members from being able to get together in the same place at the same time. This failure to meet regularly was often to the detriment of teams being able to reflect upon past performance and to initiate changes when team outcomes were not as planned.

It was often the case that 'team meetings' related to the hand-over of caseloads, rather than being a formalised mechanism of sharing information, problem solving, communication and planning. This process is often referred to as 'team reflexivity'. Team reflexivity involves teams reflecting upon and learning from previous experience and then initiating appropriate change (Carter & West, 1998; West, 1996, 2000, 2002). If teams are able to build self-awareness and monitor how members interact and work together it is more likely that they can recognise areas that need attention, and implement improvement plans accordingly (Tjosvold, Tang & West, 2004).

Teams should be encouraged to set aside time periodically for reflection. It was apparent that there were often significant time pressures and restrictions upon resources which often prevented all team members from meeting together in the same place at the same time. These pressures not withstanding, team leaders should ensure that teams do take time out to meet and reflect collectively. During such sessions, reflexivity should be applied to team processes, with the cultivation of ongoing self-awareness. When things go wrong, teams should always ask 'what can we learn from this?' Even when a team meets or exceeds its objectives, the same question should be asked. In such circumstances, as well as celebrating and rewarding their achievements, teams should consciously search for the underlying reasons behind each success, in order to improve the chances that such conditions can be replicated in the future.

Team reflexivity requires a high degree of psychological safety for team members, since reflective discussions are likely to reveal discrepancies between how the team is performing and how it should be performing. Research into newly formed nursing teams by Edmondson (1996) shows that learning from mistakes and devising innovations to avoid such mistakes in the future can only happen in teams that acknowledge and discuss their errors and how they could have been avoided.

6. Despite resource restriction, all managers and team leaders should actively promote a culture which promotes the value and importance of regular team meeting as mechanisms for exchanging information between team members.

7. All managers and team leaders should encourage team members to openly review past performance, identifying 'problem areas' and support teams members to implement ideas for new and improved ways of working, and delivering care to patients.

6.2 Promoting team-based working in NHS Trusts

What was apparent from our analysis was that often 'teams' were an integral part of how services were delivered to patients. The NHS often involves such complex care pathways that participants reported most teams were based around a mixture of professions, wards or departments or a particular service or function depending on the work they did or their professional role. This often means that staff would be part of more than one team. Staff are often part of multi-disciplinary teams based around a ward or a clinical service or corporate function, and are also part of uni-disciplinary professional teams of nurses, doctors, occupational therapists etc.

The very nature of providing clinical care means that some patient pathways require input from numerous different teams/departments, which often have independent goals, aims and objectives and may work with a large number of other teams at any one time and this can foster silo-working and competition between teams. One of the pitfalls for team-based organisations is that there can be dysfunctional relationships between teams (e.g., Kramer, 1991) and this could result in intergroup conflict between teams. Conflict between teams in a health care setting is predominantly rooted in resource issues, and this can also cause competition and relationship conflict between teams and team members. For example, Tajfel and Turner (2001) found that "objective" resource conflict and "subjective" psychological conflict may reinforce each other, and one may be a trigger for the other.

Competition across teams *per se* is not by itself detrimental (e.g., Erev *et al*., 1993; Putnam, 1997). It depends entirely on the environment in which teams operate. Where resource interdependence is low (e.g. teams are not competing for the same resources), enhancing competition between teams can be a suitable means by which to enhance a teams performance. However, where resource interdependence is high (e.g. teams are not competing for the same resources), then enhancing competition may lead teams to hamper each other's efforts, resulting in reduced effectiveness.

6 TEAM-BASED WORKING: CONCLUSIONS AND RECOMMENDATIONS

Whilst there is evidence of the commitment of staff and management to working together as a 'team', we found that there was often not a formalised approach to promoting team-based working in NHS Trusts. To promote team-based working, and, specifically, to promote situations where staff members work in 'real teams', NHS Trusts need to learn from the existing literature on team structures and processes – around leadership, communication and promoting innovation and reflectivity – in order to translate this broad-based commitment to the team-based approach into clearly defined guidelines by which managers and staff can use team-based working to improve working lives for staff, and quality of care for patients. The next section examines some of the barriers and facilitators we identified in NHS Trusts which had attempted to implement initiatives to promote team-based working.

Our analysis identified three main categories: i) managerial, ii) organisational, and iii) individual level barriers and facilitators to team-based working. Top level management support was found to be essential in displaying the importance and value of working in teams. The role of team leaders is also critical. Team leaders help to identify and clarify the objectives and outcomes of the intervention; help team overcomes obstacles difficulties, and encourage staff to participate in team-based working events. Conversely, a 'poor' leader can be a major inhibiting factor if they do not understand the concept or benefits of working in teams.

8. Senior managers should display a visible commitment to team-based working in their own work and also the approach adopted by their organisations as a whole.

9. All managers and team leaders should be cognisant of the benefits of team-based working, and display a commitment and encouragement to implementing team-based working in their own work area.

6 TEAM-BASED WORKING: CONCLUSIONS AND RECOMMENDATIONS

The major organisational barrier to implementing team-based working was time, and was often cited as an important factor in the success or failure of the intervention. Gathering all team members teams together can be a difficult, but not insurmountable, challenge. Top level managerial support is required to provide the finance for extra staffing to cover the provision of clinical care while staff attend team-based working interventions. In other trusts team-based working interventions had coincided with major restructuring, and staff redundancies, which resulted staff in reporting in low morale and staff being sceptical of the changes.

> 10. Senior managers should provide adequate resources to allow team members to attend team-based working interventions. Not providing resources signals a lack of commitment to the intervention.

Creating a 'culture' of team-based working, a powerful contributor to the success of any team-based working intervention, can take considerable time, and often involves dramatic, deep and wide-ranging change to the organisation's structure and culture. A key facilitator of team-based working is emphasising the potential benefits of team-based working to both staff, and to patients of team working. For example, our analysis showed there were clear benefits to both staff and patients arising from team-based working interventions, where:

- team members participate in setting the team's goals and objectives
- team members have a clearer understand of their own and other peoples roles and responsibilities, and how they each contribute to meeting the team's objectives
- team members are empowered to make decisions and, as a result, feel valued and trusted
- enhanced communication and cooperation within the teams which improves team member morale and service delivery to patients

Many of these factors influenced the functioning of teams, making them more effective, more coordinated, and resulted in a number of positive outcomes for patients. For example, staff and managers indentified that team-based working had resulted in a more uniform and coordinated care pathway, better patient experiences and improved patient outcomes, such as lower waiting times and short periods of hospitalisation. This would be entirely consistent with our finding that team-based working (and importantly increased levels of team-based working) across NHS Trusts were associated with higher rating of resource utilisation and financial performance.

11. The rationale for, and benefits of, team-based working should be clearly communicated by senior managers, especially in times of great organisational change.

6.3 Building team-based working in NHS Trusts

So returning to the central research question of ***how can we build organisations that ensure the effectiveness of teams as a way of working?*** there are a number of strategies NHS Trusts can introduce to promote team-based working.

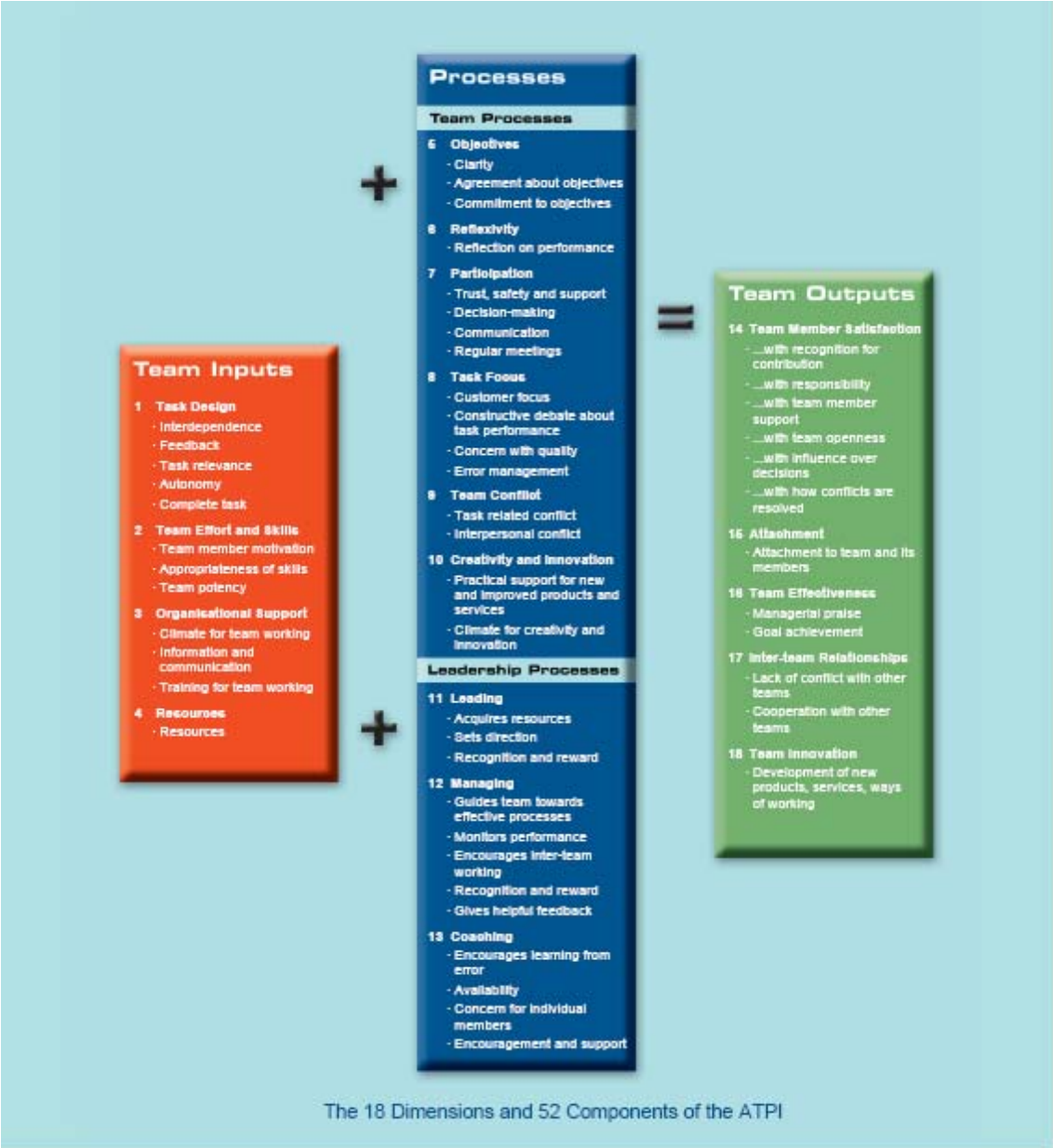
6.3.1 Promoting a climate for team-based working

Team-based working is a philosophy or attitude about the way in which organisations work, where decisions are made by teams rather than by individuals and at the closest possible point to the 'client'. It is vital therefore that there is a general commitment to this way of working and the existence of an organisational climate which nurtures and promotes the growth of team-based working.

Supportive and challenging environments are likely to sustain high levels of team performance and creativity, especially those which encourage risk taking and idea generation (West, 2002). Teams frequently have ideas for improving their workplaces, work functioning, processes, products and services. Where climates are characterized by distrust, poor communication, personal antipathies, limited individual autonomy and unclear goals, the implementation of these ideas is inhibited. The extent to which

teams in the organisation are encouraged to take time to review their objectives, strategies and processes; plan to make changes and then implement those changes, will also determine the effectiveness of the teams and their organisations. Such 'reflexivity' is a positive predictor of both team and organisational innovation (West, 2000). And innovation in turn predicts organisational performance.

Figure 6.1 Aston Team Performance Inventory



The 18 Dimensions and 52 Components of the ATPI

As we showed in Chapter One, one of the most common theoretical models of team working is the Input-Process-Outputs (IPO) model of team effectiveness (**see section 1.2 for a detailed review**). There are questionnaire instruments which allow organisations to measure the various aspects of team effectiveness, including the prevailing 'climate' for team-based working. One of the most complete questionnaire instruments is the Aston Team Performance Inventory (ATPI) (**see figure 6.1** and **appendix 7** for more details). The ATPI measures the four broad categories covered by the IPO model – the inputs, processes and outputs – and allows individual teams that are performing well to enable them to develop further, and can also be used with teams that are under-performing to help identify the causes preventing the team from achieving its potential.

6.3.2 Appraisal and performance review systems

i) *Team performance review* – Considerable performance benefits result from the provision of clear, constructive feedback to teams, though this is often an area which team members report is neglected. Individuals get feedback on performance but team performance is rarely evaluated. In a team-based organisation attention is most appropriately focused on the development of performance criteria against which teams can be measured. Such team-based working performance criteria need to reach further than simply evaluating team output. These could include the effectiveness criteria listed below.

- *Team outcomes* – the team's performance i.e. treating patients.
- *Team identification* – the extent of team members' sustained identification with and commitment to their teams i.e. their feelings of loyalty, belonging and pride towards the team and its work.
- *Team member growth and well being* – the extent to which team members are learning from each other, and the satisfaction of team members.
- *Team innovation* – the extent to which teams introduce, where possible, new and improved ways of completing their core tasks.
- *Inter-team relations* – the extent to teams cooperate with other teams and departments within the organisation. Otherwise this reinforces 'silos'.

ii) *Goal setting* – The overall direction of a team's work (its purpose) should be clearly articulated by the team leader. As with all performance-management systems, the way in which team goals are set can be a major motivating or de-motivating, factor. In keeping with the nature of team-based working, goal-setting works best if all team members are involved in the process. This involves:

- developing a shared understanding amongst all team members of the needs of their 'customer' or 'customers' (i.e. patients in healthcare teams)
- describing the overall goal or purpose of the team's activity (the team task)
- defining outcomes that will enable the achievement of the goal
- identifying performance indicators
- establishing measurement processes

Teams should have the opportunity to review their performance against targets as this enables learning to take place which will enhance future team performance, and also prompts teams to the review of team processes.

iii) *Individual performance review* – Individuals require regular, constructive feedback about their performance if they are to grow and develop in their jobs. Team-based organisations do not replace individual performance management with team performance management. Traditionally this has taken place via the annual appraisal or review interview in which the individual's manager gives feedback on the year's performance. However, as flatter structures lead to larger spans of control and each employee's contact network becomes wider, this is an ineffective means of giving an individual the feedback they need. Moreover, it is consistent with a team-based working philosophy that the team, rather than the individual's manager, should be the primary agent that appraises team members. For example, many organisations respond to the challenge of providing more appropriate team-based working appraisal systems for individuals by using one of two systems: a) 360 degree feedback and b) peer review. The important principles are that the process should help individuals clarify their work objectives, help them to feel valued, respected and supported, and help them identify the means to achieve personal development.

6.3.3 Reward systems

The implementation of team-based reward systems should be a careful, slow and incremental process. Reward systems can be focused on:

- *Individual performance* – where an individual's performance is appraised and rewarded, and performance related pay reflects reflect an individual contribution to the team's performance as rated by other team members.
- *Team performance* – where reward is related to the achievement of team goals. It is important to note that where rewards are given equally to team members by an external party, this can lead to considerable resentment. Team members who do not pull their weight are seen as 'free riders' and this can lead to resentment and de-motivation amongst other team members (Rutte, (2003). This will be exacerbated if the distribution of team rewards is achieved in ways that do not mirror the effort or contribution made by individual team members. It is important reward systems are seen as fair by team members.
- *Organisational performance* – where performance of the organisation or the business unit is reflected in rewards allocated to individuals or teams. Incorporating all elements (individual, team and organisational) provides a well-rounded reward system. However if the organisation's aim is to introduce team-based working then there must be a strong emphasis on team performance factors and as much delegation of decisions regarding team reward distribution as possible.

Reward systems to promote team-based working require:

- clear, achievable but challenging targets which team members understand, agree and ideally are involved in setting
- clear and fair means of measuring team outcomes
- team members working interdependently to achieve team goals
- allowing the team a considerable degree of autonomy in the way in which it manages its work
- giving the team access to the necessary materials, skills and knowledge to achieve the task
- defining a reward valuable enough to be worth having, and delivered soon after the achievement of the outcome.

Reward schemes should emphasise the core value of teamwork. Many managers make the mistake of assuming that employees understand the organisation's core values. Managers should also strive continually to tell employees how they are performing (with most information providing positive feedback) and to reinforce the messages about how the rewards link to the core values of the organisation.

The process of introducing reward systems in developing a team-based organisation is also critical. There are six key principles:

1. Roll out the plan down through the normal line management chain. Managers must understand the plan and be able to communicate its detail effectively.
2. Keep the explanations simple even if the plans are not. How does the plan work? What can the team earn? What can the team do to affect its performance? What can management do to help the team achieve its targets?
3. Involve teams in projects that enable them to win rewards. In other words, give teams opportunities.
4. Communicate the plan repeatedly to all teams. They will forget the details so the content of the plan needs to be repeatedly stressed.
5. Get feedback on how it's going
6. Do a formal evaluation that determines each plan's future and ensure this is related to the business strategy. If the plans are working there should be substantial changes in organisational performance in the areas that matter. If there are not, the plans should be scrapped or amended.

6.3.4 Recruitment, selection and succession planning

In team-based organisations, recruitment and selection should be focused not only on the necessary individual and technical competencies. It is important to note that assessing candidates against generic team knowledge, skill and ability requirements (KSAs) has been found to be a relatively successful selection tool, and one which can enhance the effectiveness of teams (Campion *et al.*, 1993). These team skills include goal setting, planning, conflict management, coordinating and communication.

6.3.5 Education and Training Systems

Working in teams presents significant learning opportunities as well as challenges for individual team members, and the pace at which team working can be successfully implemented and embedded into the organisation will vary in line with pre-existing knowledge and skills. Team building interventions can be divided into five main types, each requiring a very different approach.

1. Setting up of new teams: The setting-up of teams presents particular challenges and specific exercises are appropriate where a team is just beginning its work and needs to clarify its objectives, strategies, processes and roles. The beginning of a team's life has a significant influence on its later development and effectiveness, especially when crises occur. Start-up interventions can help create team ethos, determine clarity of direction and shape team working practices. They include:
   - Ensuring the team has a whole and meaningful task to perform.
   - Clarifying team objectives.
   - Ensuring that each team member has a whole, meaningful and intrinsically interesting task to perform
   - Ensuring that team members' activities can be evaluated.
   - Ensuring that team performance as a whole is monitored and that team members are given regular and clear feedback on individual *and* team performance.
   - Establishing a means for regular communication and review within the team.

   Specifying the way in which team members will work together – the 3 or 4 things the team should *always* do and the 3 or 4 things the team should *never* do.

   The principle of 'guided growth' (Stern & Sommerlad, 1999) suggests that newly-functioning teams benefit from working with facilitators (either from within or outside the organisation) whose purpose it is to help teams develop the learning processes and methodologies that will serve to increase the efficiency of the whole system. Many team building interventions are based on the expectation that a day or two of team building will lead to dramatic improvements in team functioning. It is equivalent to hoping that one session of psychotherapy will change a person's

life dramatically. The evidence suggests that it is continual interaction and effort which lead to improvements in functioning rather than any 'quick fix'.

2. Regular performance reviews: Regular formal reviews usually take the form of 'away days' which the team reviews objectives, roles, strategies and processes in order to maintain and promote effective functioning. Within work teams, regular away days are a useful way of ensuring a team's continuing effectiveness. Indeed there is much evidence that teams which take time out to review processes are more effective than those which do not.

3. Addressing *known* problems in teams: Addressing known task related problems, teams should take time out to define carefully the task related problem it is confronting. Then the team develops alternative options for overcoming the problem, and action plans for implementing the selected way forward.

4. Addressing *unknown* problems in teams: Identifying unknown problems where the cause is not immediately obvious. For example, it might be that a piece of equipment malfunctions irregularly or that important information is not acted upon by another team, despite the fact that it is transmitted. After the agreed identification of the nature of specific problems the team goes on to use appropriate strategies to overcome them in future.

5. Social process interventions: The focus is on interpersonal relationships, social support, team climate, support for growth and development of team members, and conflict resolution. They aim to promote a positive social climate and team member well-being. Whatever the intervention it is essential that team leaders are clear that interpersonal problems should not be allowed to interfere with the team's performance. At the extreme, a team may need to be disbanded (for example where interpersonal problems inhibit the breast cancer care team's ability to provide good diagnosis and treatment for patients).

6 TEAM-BASED WORKING: CONCLUSIONS AND RECOMMENDATIONS

The blanket approach to team building often employed is unlikely to be effective for most teams. The first question to ask is 'What intervention is most appropriate, for which teams, and at which point in time?' The following checklist can be used to ensure appropriate focus for the intervention:

- Are the objectives of the intervention clear?
- Is the intervention appropriate for the particular issues facing the team?
- Is the intervention appropriately timed?
- Does the intervention attempt to cover too many areas?
- Are facilitators employed who have the knowledge and skills required to conduct team building interventions?
- Will clear action plans emerge as a result of the team building intervention?
- Are means for sustaining change built in to the intervention?
- Will regular reviews be instituted as a result of the team building intervention?

The success of the team frequently hinges upon the capability of the team leader – as a result training for team leaders is an important part of team-based working interventions. Team leader training can include developing:

- awareness of the differences between leadership in a traditional and a team-based environment
- skills to identify team and team community boundaries
- increased awareness of personal leadership style – particularly in the areas of personal need for control, ability to trust and take risks, confidence to work across organisational levels and professional boundaries
- skills to facilitate team member involvement in task design, goal-setting, role clarification and problem solving
- understanding of team processes and their effect on team member relationships
- networking skills to ensure continued learning and development
- increased confidence to manage at the team community and organisational level

6.3.6 Team-process support systems

Teams need help and support to establish and maintain effective team working processes during various stages of their development. In team-based organisations, some teams will encounter difficulties of working effectively. This may arise because of lack of clarity over objectives, lack of clarity about roles or, much more rarely, personality problems. It is unrealistic to always expect team members to work these difficulties through to a satisfactory conclusion. Consequently, successful team-based organisations ensure there is an internal facilitator or external consultant who can provide assistance to teams that are having difficulty – in short 'process assistance' or 'process support'. Such support may be required at the following times:

- *The initial set-up stage* when both team leaders and team members may require training and support to establish appropriate working practices and to develop team working skills.
- *Periods of difficulty*, either in the achievement of tasks, where assistance may be provided in such areas as co-ordination of effort or skill sharing within the team, or in resolving conflict within the team.
- *Periods of growth and development* when team members are looking for new ways of working, external interventions can be used to challenge mind sets which have developed within the team and encourage appropriate risk taking.
- *Periods of review and evaluation* since teams should be encouraged to regularly review both their outcomes and the way in which they work. If this does not happen it may lead to the development of an introverted or stagnant team environment.
- *The closing stages of team life* when too little attention may be given to the ending of team relationships. Appropriate closing processes can enhance team-member learning which will be applied in future teams. Also team members' self-esteem and motivation will be enhanced by the celebrations and leave-takings that should naturally occur at the end of a successfully completed project. Teams may be reluctant to disband when their job is really done so this process should be speedily and sensitively enabled.

Each team should have a 'sponsor', preferably a senior and influential staff member within the organisation who has a particular interest in the success of the team (this may well be the team leader). This sponsor will provide general support and access to required resources. However, specific process support can only be provided by people skilled in team facilitation who are knowledgeable about empirically-based theories of team working. This individual does not require a detailed knowledge of the content of the team's work. Such team facilitators must understand the role and the team/s must be aware of the range of support the Facilitator can provide.

The Team Facilitator may be someone from outside the organisation. This is often the case where new team-based working systems are being implemented and a large amount of process support is required. Alternatively organisations may establish a team of internal Team Facilitators. As team-based working systems mature and develop, many organisations find they have the appropriate skills internally, often using successful team leaders to provide process consultancy to other teams within the organisation. Such team leaders, equipped with additional facilitation and consultancy skills training, form a core resource which can be called upon by any team requiring assistance.

6.3.7 Feedback systems

Feedback systems must be established which allow both individuals and teams to accurately assess their performance against targets and also to assess the impact of their working practices on others within the organisation. Each team needs to ensure that they are regularly engaging in effective feedback sessions with other mutually dependent teams – taking opportunities to celebrate success jointly and review learning from difficulties. Within the effective team-based working organisation there will also be effectively functioning mechanisms to ensure that feedback travels upwards from teams and is incorporated into strategic decision making. Organisations can use various techniques to facilitate this process. The essential criteria for their success is that the organisation climate encourages honest welcoming of constructive feedback as a means of improving performance and that those giving feedback see that action is taken as a result.

6.4 Conclusions and limitations

Health service delivery requires many professionals to work in teams to deliver services to patients and services users. Although a large proportion of staff in the NHS report that they work in a team (nearly 90% of those who responded to the National Staff Survey), only about half of these reported that they worked in what we would call structured 'real' teams. 'Real' team working involves a group of people working interdependently towards clearly understood and shared objectives. They meet regularly to review their team performance and how it can be achieved. And the team is not so large that such a way of working becomes impossible. True team-based working in the NHS begins with the top management team exuding excellent team working in how they themselves work. It also involves ensuring a suitably skilled individual leads the team and that the skills of team working are explicitly developed in the area of work for which the team is responsible.

There are many models of effective team working, and one of the most commonly followed is the input-process-output (IPO) model (see Chapter One for more details). Our criteria of a 'real' team (clarity of objectives, task interdependence, regular meeting and reflexivity) represent the 'processes' of the team. Another team process is the role of leadership. The task for managers is to ensure that teams are created with clear objectives, with the skills of team working, with the autonomy to perform their work effectively, and with the organisational supports to operate as 'real' teams.

This failure of teams to operate in such a way can bring about many adverse events for individuals, teams and organisations as a whole. Specifically, poorly functioning teams are associated with higher levels of errors, work-related injuries and stress, physical violence or harassment, and, as a consequence, less satisfied staff that are more likely to express a desire to leave. There are also significant implications for NHS Trusts at a corporate level of having more poorly functioning teams, where such organisations are rated as being less effective on measures of financial management, and less effective on meeting national standards and targets.

6 TEAM-BASED WORKING: CONCLUSIONS AND RECOMMENDATIONS

We acknowledge that there are a number of limitations associated with the analysis provided in this report, and the subsequent conclusions. One weakness is that we are unable, in the quantitative analysis, to identify which individuals are members of which teams. This means any team-level analysis is impossible, and neither can we take account of multiple team membership by individuals. Much of the data is self-report, and therefore subjective – importantly, peoples' assessment of team working itself may be coloured by their individual attitudes. However, given many of the questions are asked in a way that suggests a greater degree of objectivity than many questionnaire measures, the impact of this should be minimised. Moreover, the extent of the link between team-based working and the quality of patient care, although significant, is limited. Although it can be argued that any effect on patient care is worthy of mention, we suggest that the true nature of these effects will only become apparent with subsequent research.

Nevertheless, the analysis represented in this report does illustrate that there are many things that NHS Trusts can do to promote team-based working. However, simply implementing team-based working interventions is not sufficient to guarantee that positive outcomes will ensure. As we have shown, a true and visible commitment from top management is essential, and often requires a major cultural change to occur in trusts where employees across the organisation buy into the notion of team-working, and see the benefits of such a way of working for themselves and the patients with whom they work.

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APPENDIX 1

TEAM-BASED WORKING AND PERFORMANCE

National NHS Staff Survey questionnaire

APPENDIX 1

TEAM-BASED WORKING

Team-based working

The following questions are about team working and relate to the group of people that you work most closely.

a) Do you work in a team?

b) Does your team have clear objectives?

c) Do you have to work closely with other team members to achieve the team's objectives?

d) Does the team meet regularly to discuss its effectiveness and how it could be improved?

Response options for all questions: Yes or No

SAFETY AT WORK

Suffered work-related injury

During the last 12 months have you been injured or felt unwell as a result of the following problems at work?

a) Moving and handling

b) Needlestick and sharps injuries

c) Slips, trips or falls

d) Exposure to dangerous substances

Response options for all questions: Yes or No

Suffered work-related stress

During the last 12 months have you been injured or felt unwell as a result of the following problems at work?

e) Work-related stress

Response options for question: Yes or No

Witnessed errors, near misses, or incidents

a) In the last month, I have seen errors, near misses, or incidents that could hurt **patients / service users?**

b) In the last month, I have seen errors, near misses, or incidents that could hurt **staff?**

Response options for all questions: Yes or No

Experienced physical violence from patients / service users

In the last 12 months have you personally experienced physical violence at work from any of the following?

a) Patients / service users

b) Relatives of patients / service users

Response options for all questions: Yes or No

Experienced physical violence from other work colleagues

In the last 12 months have you personally experienced physical violence at work from any of the following?

c) Manager / team leader

d) Other colleagues

Response options for all questions: Yes or No

Experienced harassment, bullying or abuse from patients / service users

In the last 12 months have you personally experienced harassment, bullying or abuse at work from any of the following?

a) Patients / service users

b) Relatives of patients / service users

Response options for all questions: Yes or No

Experienced harassment, bullying or abuse from other work colleagues

In the last 12 months have you personally experienced harassment, bullying or abuse at work from any of the following?

c) Manager / team leader

d) Other colleagues

Response options for all questions: Yes or No

PSYCHOLOGICAL WELL-BEING

Staff job satisfaction

How satisfied are you with each of the following aspects of your job?

a) The recognition I get for good work.

b) The support I get from my immediate manager.

c) The freedom I have to choose my own method of working.

d) The support I get from my work colleagues.

e) The amount of responsibility I am given.

f) The opportunities I have to use my skills.

g) The extent to which my Trust values my work.

Response options for all questions: Very Dissatisfied, Dissatisfied, Neither Satisfied nor Dissatisfied, Satisfied, and Very Satisfied

Work pressures felt by staff

To what extent do you agree or disagree with the following?

a) I cannot meet all the conflicting demands on my time at work.

b) I have adequate materials, supplies and equipment to do my work. (reverse coded)

c) There are sufficient staff at this Trust for me to do my job properly. (reverse coded)

d) I do not have time to carry out all my work.

Response options for all questions: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree

Staff intention to leave jobs

To what extent do you agree or disagree with the following?

a) I often think about leaving this Trust.

b) I will probably look for a job at a new organisation in the next 12 months.

c) As soon as I can find another job, I will leave this Trust.

Response options for all questions: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree

ORGANISATIONAL CULTURE, LEADERSHIP AND HR SUPPORT

Organisational climate

The following statements are about the Trust where you work. For each part, please tick the box which best matches your view of the Trust as a whole.

a) Senior managers here try to involve staff in important decisions.

b) Communication between senior management and staff is effective.

c) Senior managers encourage staff to suggest new ideas for improving services.

d) On the whole, the different parts of the Trust communicate effectively with each other.

e) Care of patients / service users is my Trust's top priority.

Response options for all questions: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree

Support from immediate supervisor

To what extent do you agree or disagree with the following statements about your immediate manager? My immediate manager...

a) ...encourages those who work for her/him to work as a team.

b) ...can be counted on to help me with a difficult task at work.

c) ...gives me clear feedback on my work.

d) ...asks for my opinion before making decisions that affect my work.

e) ...is supportive in a personal crisis.

Response options for all questions: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree

Support for work-life balance

To what extent do you agree or disagree with the following?

a) My Trust is committed to helping staff balance their work and home life.

b) My immediate manager helps me find a good work-life balance.

c) I can approach my immediate manager to talk openly about flexible working.

Response options for all questions: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree

Quality of job design

To what extent do you agree or disagree with the following?

a) I have clear, planned goals and objectives for my job.

b) I often have trouble working out whether I am doing well or poorly in this job. (reverse coded)

c) I am involved in deciding on the changes introduced that affect my work area / team / department.

d) I always know what my work responsibilities are.

e) I am consulted about changes that affect my work area / team / department.

f) I get clear feedback about how well I am doing my job.

Response options for all questions: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree

APPENDIX 2

TEAM-BASED WORKING AND WELL-BEING

Additional individual level analysis

APPENDIX 2

Team-based working as a predictor of safety at work

In this appendix we present more detailed analysis conducted to examine the relationship between team-based working and seven measures of safety at work, including whether the respondents had:

- Suffered work-related injury
- Suffered work-related stress
- Witnessed errors, near misses, or incidents that could hurt staff or patients
- Experienced physical violence from patients / service users
- Experienced physical violence from other work colleagues
- Experienced harassment, bullying or abuse from patients / service users
- Experienced harassment, bullying or abuse from other work colleagues

Details of the safety at work variables can be found in **Appendix 1**.

In chapter three we presented details of analysis conducted which examined such relationships across all trusts which participated in the 2006 national NHS staff survey – in this appendix we present more detailed analysis which looks at these relationship across different trust types (**acute**, **primary care**, **mental health** and **ambulance trusts**) and where **only clinical staff** (e.g. medical and nursing staff, allied health professionals etc.) are selected.

Three types of analysis are presented. Firstly, respondents were asked whether they worked in a team. If a respondent gave the answer 'no', they were classified as not working in a team (shown as 'no team' in tables). If a respondent gave the answer 'yes', they were assigned into one of two further groups basing on the answers to the following three questions:

a) Whether the team they worked in had clear objectives;
b) Whether they had to work closely with other team members to achieve the team's objectives; and
c) Whether the team met regularly to discuss its effectiveness and how it could be improved.

If the respondents answered 'yes' to all three questions above, they were classified as working in a 'real team' (shown as 'real team' in tables). If they answered, 'no' to any of the three questions above they were initially classified as working in a 'pseudo team' (shown as 'pseudo team' in tables). Details of this analysis for each of the safety at work variables are reported in tables **a2.1**, **a2.4**, **a2.7**, **a2.10**, **a2.13**, **a2.16** and **a2.19**.

Secondly, we re-calculated the responses for the 'pseudo team' group responses into three categories according to whether respondents worked in a 'pseudo team' which was:

- missing all three of the criteria of a 'real team' (shown as 'missing 3' in tables)
- missing any two of the criteria of a 'real team' (shown as 'missing 2' in tables)
- missing only one of the criteria of a 'real team' (shown as 'missing 1' in tables)

Details of this analysis for each of the safety at work variables are reported in tables **a2.2**, **a2.5**, **a2.8**, **a2.11**, **a2.14**, **a2.17** and **a2.20**.

Thirdly, we re-calculated the responses for the 'pseudo team' group responses into seven categories according to whether respondents worked in a 'pseudo team' which was:

- missing all three of the criteria ('No' to questions a, b and c above) (shown as 'missing a, b, c' in tables)
- missing two of the criteria: Answering 'Yes' to question a only (shown as 'missing b, c' in tables)
- missing two of the criteria: Answering 'Yes' to question b only (shown as 'missing a, c' in tables)
- missing two of the criteria: Answering 'Yes' to question c only (shown as 'missing a, b' in tables)
- missing one of the criteria: Answering 'Yes' to questions a and b (shown as 'missing c' in tables)
- missing one of the criteria: Answering 'Yes' to questions a and c (shown as 'missing b' in tables)
- missing one of the criteria: Answering 'Yes' to question b and c (shown as 'missing a' in tables y)

Details of this analysis for each of the safety at work variables are reported in tables **a2.3**, **a2.6**, **a2.9**, **a2.12**, **a2.15**, **a2.18** and **a2.21**.

Note the figure reported in the tables in the Exp(B) columns represent the 'odds ratio' where a higher score indicates respondents in this group are more likely to have suffered work-related injuries or stress, have witnessed errors and incidents, or to have experienced violence or harassment when compared with a comparator group - in the first set of rows the comparator group was 'working in a real team', and in the second set of rows the comparator group was 'not working in a team'.

Is team-based working related to work-related injuries?

Table a2.1: **Team-based working as a predictor of work-related injuries**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.980	0.565	pseudo team	1.355	0.000
	pseudo team	1.329	0.000	real team	1.020	0.565
All staff in Acute Trusts	no team	0.955	0.288	pseudo team	1.446	0.000
	pseudo team	1.380	0.000	real team	1.047	0.288
All staff in PCTs	no team	0.917	0.318	pseudo team	1.321	0.002
	pseudo team	1.211	0.000	real team	1.090	0.318
All staff in Mental Health / Learning Disability Trusts	no team	0.922	0.475	pseudo team	1.348	0.009
	pseudo team	1.243	0.000	real team	1.084	0.475
All staff in Ambulance Trusts	no team	1.402	0.007	pseudo team	1.078	0.409
	pseudo team	1.512	0.000	real team	0.713	0.007
All clinical staff	no team	0.992	0.850	pseudo team	1.379	0.000
	pseudo team	1.368	0.000	real team	1.008	0.850

Table a2.2: **Team-based working as a predictor of work-related injuries**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.981	0.567	missing 3	1.300	0.000
	missing 3	1.275	0.000	missing 2	1.454	0.000
	missing 2	1.426	0.000	missing 1	1.333	0.000
	missing 1	1.307	0.000	real team	1.020	0.567
All staff in Acute Trusts	no team	0.955	0.293	missing 3	1.435	0.000
	missing 3	1.370	0.000	missing 2	1.502	0.000
	missing 2	1.435	0.000	missing 1	1.430	0.000
	missing 1	1.366	0.000	real team	1.047	0.293
All staff in PCTs	no team	0.918	0.322	missing 3	1.211	0.122
	missing 3	1.112	0.278	missing 2	1.447	0.000
	missing 2	1.328	0.000	missing 1	1.290	0.006
	missing 1	1.184	0.001	real team	1.090	0.322
All staff in Mental Health / Learning Disability Trusts	no team	0.923	0.481	missing 3	1.237	0.161
	missing 3	1.142	0.246	missing 2	1.548	0.001
	missing 2	1.429	0.000	missing 1	1.292	0.030
	missing 1	1.193	0.004	real team	1.083	0.481
All staff in Ambulance Trusts	no team	1.402	0.007	missing 3	0.904	0.512
	missing 3	1.266	0.154	missing 2	1.260	0.071
	missing 2	1.766	0.000	missing 1	1.062	0.533
	missing 1	1.488	0.000	real team	0.713	0.007
All clinical staff	no team	0.991	0.844	missing 3	1.325	0.000
	missing 3	1.313	0.000	missing 2	1.497	0.000
	missing 2	1.484	0.000	missing 1	1.353	0.000
	missing 1	1.341	0.000	real team	1.009	0.844

Table a2.3: **Team-based working as a predictor of work-related injuries**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	missing a, b, c	1.287	0.000	missing a, b, c	1.301	0.000
	missing b, c	1.315	0.000	missing b, c	1.329	0.000
	missing a, c	1.606	0.000	missing a, c	1.623	0.000
	missing a, b	1.084	0.271	missing a, b	1.096	0.247
	missing c	1.406	0.000	missing c	1.421	0.000
	missing b	0.969	0.581	missing b	0.979	0.743
	missing a	1.070	0.186	missing a	1.081	0.184
All staff in Acute Trusts	missing a, b, c	1.382	0.000	missing a, b, c	1.443	0.000
	missing b, c	1.238	0.002	missing b, c	1.293	0.001
	missing a, c	1.652	0.000	missing a, c	1.726	0.000
	missing a, b	1.037	0.733	missing a, b	1.083	0.477
	missing c	1.443	0.000	missing c	1.507	0.000
	missing b	0.906	0.219	missing b	0.947	0.533
	missing a	1.183	0.016	missing a	1.235	0.008
All staff in PCTs	missing a, b, c	1.115	0.266	missing a, b, c	1.209	0.125
	missing b, c	1.424	0.010	missing b, c	1.545	0.005
	missing a, c	1.405	0.000	missing a, c	1.524	0.000
	missing a, b	1.154	0.241	missing a, b	1.252	0.121
	missing c	1.317	0.000	missing c	1.429	0.000
	missing b	1.051	0.627	missing b	1.140	0.306
	missing a	1.028	0.780	missing a	1.115	0.386
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	1.147	0.231	missing a, b, c	1.240	0.156
	missing b, c	1.411	0.026	missing b, c	1.525	0.020
	missing a, c	1.566	0.000	missing a, c	1.693	0.000
	missing a, b	1.048	0.811	missing a, b	1.132	0.569
	missing c	1.304	0.000	missing c	1.410	0.005
	missing b	1.040	0.775	missing b	1.124	0.491
	missing a	0.993	0.955	missing a	1.074	0.658
All staff in Ambulance Trusts	missing a, b, c	1.289	0.126	missing a, b, c	0.907	0.530
	missing b, c	1.589	0.013	missing b, c	1.119	0.527
	missing a, c	1.979	0.000	missing a, c	1.393	0.032
	missing a, b	1.134	0.831	missing a, b	0.799	0.702
	missing c	1.576	0.000	missing c	1.110	0.279
	missing b	0.503	0.170	missing b	0.354	0.038
	missing a	0.485	0.080	missing a	0.342	0.009
All clinical staff	missing a, b, c	1.326	0.000	missing a, b, c	1.322	0.000
	missing b, c	1.439	0.000	missing b, c	1.434	0.000
	missing a, c	1.652	0.000	missing a, c	1.646	0.000
	missing a, b	1.082	0.353	missing a, b	1.078	0.419
	missing c	1.442	0.000	missing c	1.437	0.000
	missing b	1.006	0.930	missing b	1.003	0.971
	missing a	1.081	0.189	missing a	1.077	0.295

Is team-based working related to work-related stress?

Table a2.4: **Team-based working as a predictor of work-related stress**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	1.044	0.106	pseudo team	1.307	0.000
	pseudo team	1.364	0.000	real team	0.958	0.106
All staff in Acute Trusts	no team	1.043	0.228	pseudo team	1.271	0.000
	pseudo team	1.325	0.000	real team	0.959	0.228
All staff in PCTs	no team	1.022	0.713	pseudo team	1.381	0.000
	pseudo team	1.410	0.000	real team	0.979	0.713
All staff in Mental Health / Learning Disability Trusts	no team	1.006	0.933	pseudo team	1.411	0.000
	pseudo team	1.419	0.000	real team	0.994	0.933
All staff in Ambulance Trusts	no team	1.341	0.022	pseudo team	1.193	0.062
	pseudo team	1.600	0.000	real team	0.746	0.022
All clinical staff	no team	1.113	0.003	pseudo team	1.266	0.000
	pseudo team	1.409	0.000	real team	0.899	0.003

Table a2.5: **Team-based working as a predictor of work-related stress**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	1.046	0.090	missing 3	1.491	0.000
	missing 3	1.559	0.000	missing 2	1.516	0.000
	missing 2	1.586	0.000	missing 1	1.213	0.000
	missing 1	1.268	0.000	real team	0.956	0.090
All staff in Acute Trusts	no team	1.046	0.198	missing 3	1.410	0.000
	missing 3	1.475	0.000	missing 2	1.485	0.000
	missing 2	1.553	0.000	missing 1	1.189	0.000
	missing 1	1.244	0.000	real team	0.956	0.198
All staff in PCTs	no team	1.024	0.679	missing 3	1.634	0.000
	missing 3	1.673	0.000	missing 2	1.541	0.000
	missing 2	1.578	0.000	missing 1	1.268	0.000
	missing 1	1.299	0.000	real team	0.976	0.679
All staff in Mental Health / Learning Disability Trusts	no team	1.009	0.894	missing 3	1.659	0.000
	missing 3	1.674	0.000	missing 2	1.654	0.000
	missing 2	1.669	0.000	missing 1	1.284	0.001
	missing 1	1.296	0.000	real team	0.991	0.894
All staff in Ambulance Trusts	no team	1.348	0.020	missing 3	1.256	0.143
	missing 3	1.692	0.002	missing 2	1.356	0.020
	missing 2	1.827	0.000	missing 1	1.138	0.195
	missing 1	1.534	0.000	real team	0.742	0.020
All clinical staff	no team	1.114	0.003	missing 3	1.399	0.000
	missing 3	1.558	0.000	missing 2	1.489	0.000
	missing 2	1.658	0.000	missing 1	1.180	0.000
	missing 1	1.315	0.000	real team	0.898	0.003

Table a2.6: **Team-based working as a predictor of work-related stress**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	missing a, b, c	1.564	0.000	missing a, b, c	1.501	0.000
	missing b, c	1.245	0.000	missing b, c	1.195	0.000
	missing a, c	1.831	0.000	missing a, c	1.758	0.000
	missing a, b	1.476	0.000	missing a, b	1.417	0.000
	missing c	1.241	0.000	missing c	1.191	0.000
	missing b	1.079	0.062	missing b	1.036	0.447
	missing a	1.623	0.000	missing a	1.558	0.000
All staff in Acute Trusts	missing a, b, c	1.479	0.000	missing a, b, c	1.418	0.000
	missing b, c	1.260	0.000	missing b, c	1.208	0.004
	missing a, c	1.800	0.000	missing a, c	1.726	0.000
	missing a, b	1.318	0.001	missing a, b	1.264	0.009
	missing c	1.226	0.000	missing c	1.175	0.000
	missing b	1.054	0.403	missing b	1.010	0.883
	missing a	1.633	0.000	missing a	1.565	0.000
All staff in PCTs	missing a, b, c	1.681	0.000	missing a, b, c	1.645	0.000
	missing b, c	1.123	0.283	missing b, c	1.099	0.427
	missing a, c	1.825	0.000	missing a, c	1.786	0.000
	missing a, b	1.601	0.000	missing a, b	1.567	0.000
	missing c	1.259	0.000	missing c	1.232	0.003
	missing b	1.143	0.059	missing b	1.118	0.199
	missing a	1.565	0.000	missing a	1.532	0.000
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	1.685	0.000	missing a, b, c	1.681	0.000
	missing b, c	1.244	0.056	missing b, c	1.241	0.094
	missing a, c	1.940	0.000	missing a, c	1.936	0.000
	missing a, b	1.558	0.000	missing a, b	1.554	0.001
	missing c	1.271	0.000	missing c	1.268	0.003
	missing b	1.028	0.749	missing b	1.026	0.811
	missing a	1.627	0.000	missing a	1.623	0.000
All staff in Ambulance Trusts	missing a, b, c	1.696	0.002	missing a, b, c	1.259	0.138
	missing b, c	1.557	0.021	missing b, c	1.155	0.433
	missing a, c	2.052	0.000	missing a, c	1.523	0.007
	missing a, b	1.594	0.404	missing a, b	1.183	0.763
	missing c	1.519	0.000	missing c	1.127	0.234
	missing b	1.414	0.351	missing b	1.050	0.896
	missing a	2.103	0.018	missing a	1.561	0.155
All clinical staff	missing a, b, c	1.562	0.000	missing a, b, c	1.406	0.000
	missing b, c	1.372	0.000	missing b, c	1.234	0.003
	missing a, c	1.825	0.000	missing a, c	1.642	0.000
	missing a, b	1.556	0.000	missing a, b	1.400	0.000
	missing c	1.295	0.000	missing c	1.165	0.000
	missing b	1.091	0.099	missing b	0.982	0.768
	missing a	1.621	0.000	missing a	1.458	0.000

Is team-based working related to the level of witnessed errors and incidents?

Table a2.7: **Team-based working as a predictor of witnessed errors and incidents**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.883	0.000	pseudo team	1.249	0.000
	pseudo team	1.103	0.000	real team	1.132	0.000
All staff in Acute Trusts	no team	0.878	0.000	pseudo team	1.203	0.000
	pseudo team	1.056	0.006	real team	1.139	0.000
All staff in PCTs	no team	0.843	0.011	pseudo team	1.348	0.000
	pseudo team	1.136	0.000	real team	1.186	0.011
All staff in Mental Health / Learning Disability Trusts	no team	0.825	0.019	pseudo team	1.572	0.000
	pseudo team	1.297	0.000	real team	1.212	0.019
All staff in Ambulance Trusts	no team	0.983	0.884	pseudo team	1.083	0.382
	pseudo team	1.064	0.532	real team	1.018	0.884
All clinical staff	no team	0.940	0.083	pseudo team	1.187	0.000
	pseudo team	1.116	0.000	real team	1.063	0.083

Table a2.8: **Team-based working as a predictor of witnessed errors and incidents**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.884	0.000	missing 3	1.295	0.000
	missing 3	1.145	0.000	missing 2	1.391	0.000
	missing 2	1.230	0.000	missing 1	1.197	0.000
	missing 1	1.058	0.001	real team	1.131	0.000
All staff in Acute Trusts	no team	0.880	0.000	missing 3	1.277	0.000
	missing 3	1.123	0.014	missing 2	1.319	0.000
	missing 2	1.160	0.000	missing 1	1.159	0.000
	missing 1	1.020	0.377	real team	1.137	0.000
All staff in PCTs	no team	0.845	0.012	missing 3	1.375	0.001
	missing 3	1.161	0.046	missing 2	1.525	0.000
	missing 2	1.288	0.000	missing 1	1.269	0.001
	missing 1	1.072	0.085	real team	1.184	0.012
All staff in Mental Health / Learning Disability Trusts	no team	0.827	0.020	missing 3	1.578	0.000
	missing 3	1.305	0.001	missing 2	1.738	0.000
	missing 2	1.437	0.000	missing 1	1.508	0.000
	missing 1	1.246	0.000	real team	1.210	0.020
All staff in Ambulance Trusts	no team	0.988	0.918	missing 3	1.045	0.774
	missing 3	1.032	0.845	missing 2	1.307	0.038
	missing 2	1.291	0.061	missing 1	1.033	0.735
	missing 1	1.020	0.845	real team	1.013	0.918
All clinical staff	no team	0.941	0.086	missing 3	1.255	0.000
	missing 3	1.181	0.000	missing 2	1.343	0.000
	missing 2	1.264	0.000	missing 1	1.131	0.001
	missing 1	1.064	0.002	real team	1.063	0.086

Table a2.9: **Team-based working as a predictor of witnessed errors and incidents**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	missing a, b, c	1.152	0.000	missing a, b, c	1.305	0.000
	missing b, c	0.919	0.080	missing b, c	1.042	0.440
	missing a, c	1.490	0.000	missing a, c	1.689	0.000
	missing a, b	1.056	0.331	missing a, b	1.196	0.003
	missing c	1.053	0.007	missing c	1.193	0.000
	missing b	0.822	0.000	missing b	0.931	0.149
	missing a	1.338	0.000	missing a	1.516	0.000
All staff in Acute Trusts	missing a, b, c	1.127	0.011	missing a, b, c	1.284	0.000
	missing b, c	0.856	0.012	missing b, c	0.975	0.707
	missing a, c	1.428	0.000	missing a, c	1.626	0.000
	missing a, b	0.949	0.537	missing a, b	1.080	0.393
	missing c	1.007	0.776	missing c	1.146	0.000
	missing b	0.849	0.008	missing b	0.966	0.615
	missing a	1.353	0.000	missing a	1.541	0.000
All staff in PCTs	missing a, b, c	1.173	0.033	missing a, b, c	1.389	0.001
	missing b, c	0.978	0.856	missing b, c	1.158	0.276
	missing a, c	1.568	0.000	missing a, c	1.856	0.000
	missing a, b	1.139	0.163	missing a, b	1.348	0.007
	missing c	1.100	0.066	missing c	1.302	0.001
	missing b	0.764	0.001	missing b	0.905	0.330
	missing a	1.340	0.000	missing a	1.586	0.000
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	1.316	0.001	missing a, b, c	1.596	0.000
	missing b, c	1.272	0.047	missing b, c	1.544	0.002
	missing a, c	1.570	0.000	missing a, c	1.905	0.000
	missing a, b	1.306	0.030	missing a, b	1.584	0.001
	missing c	1.289	0.000	missing c	1.564	0.000
	missing b	0.852	0.096	missing b	1.033	0.787
	missing a	1.487	0.000	missing a	1.804	0.000
All staff in Ambulance Trusts	missing a, b, c	1.048	0.775	missing a, b, c	1.052	0.744
	missing b, c	0.841	0.353	missing b, c	0.844	0.351
	missing a, c	1.789	0.000	missing a, c	1.796	0.000
	missing a, b	1.132	0.826	missing a, b	1.136	0.821
	missing c	1.034	0.752	missing c	1.038	0.704
	missing b	0.773	0.510	missing b	0.776	0.517
	missing a	1.039	0.907	missing a	1.043	0.898
All clinical staff	missing a, b, c	1.189	0.000	missing a, b, c	1.264	0.000
	missing b, c	0.909	0.128	missing b, c	0.966	0.625
	missing a, c	1.531	0.000	missing a, c	1.628	0.000
	missing a, b	1.072	0.282	missing a, b	1.139	0.069
	missing c	1.058	0.012	missing c	1.125	0.002
	missing b	0.781	0.000	missing b	0.830	0.003
	missing a	1.388	0.000	missing a	1.475	0.000

Is team-based working related to the level of experienced physical violence from patients?

Table a2.10: **Team-based working as a predictor of experienced physical violence from patients / service users**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.802	0.000	pseudo team	1.430	0.000
	pseudo team	1.146	0.000	real team	1.247	0.000
All staff in Acute Trusts	no team	0.713	0.000	pseudo team	1.609	0.000
	pseudo team	1.147	0.000	real team	1.403	0.000
All staff in PCTs	no team	0.876	0.363	pseudo team	1.374	0.032
	pseudo team	1.204	0.002	real team	1.141	0.363
All staff in Mental Health / Learning Disability Trusts	no team	0.875	0.245	pseudo team	1.311	0.021
	pseudo team	1.147	0.002	real team	1.143	0.245
All staff in Ambulance Trusts	no team	0.983	0.902	pseudo team	1.205	0.066
	pseudo team	1.185	0.142	real team	1.017	0.902
All clinical staff	no team	0.784	0.000	pseudo team	1.468	0.000
	pseudo team	1.151	0.000	real team	1.275	0.000

Table a2.11: **Team-based working as a predictor of experienced physical violence from patients / service users**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.802	0.000	missing 3	1.489	0.000
	missing 3	1.194	0.000	missing 2	1.381	0.000
	missing 2	1.108	0.006	missing 1	1.435	0.000
	missing 1	1.151	0.000	real team	1.247	0.000
All staff in Acute Trusts	no team	0.713	0.000	missing 3	1.609	0.000
	missing 3	1.147	0.039	missing 2	1.582	0.000
	missing 2	1.128	0.020	missing 1	1.617	0.000
	missing 1	1.152	0.000	real team	1.403	0.000
All staff in PCTs	no team	0.878	0.368	missing 3	1.625	0.009
	missing 3	1.426	0.006	missing 2	1.354	0.072
	missing 2	1.188	0.092	missing 1	1.334	0.059
	missing 1	1.170	0.028	real team	1.140	0.368
All staff in Mental Health / Learning Disability Trusts	no team	0.873	0.238	missing 3	1.260	0.116
	missing 3	1.100	0.342	missing 2	1.157	0.266
	missing 2	1.010	0.892	missing 1	1.383	0.007
	missing 1	1.207	0.000	real team	1.146	0.238
All staff in Ambulance Trusts	no team	0.992	0.954	missing 3	1.485	0.016
	missing 3	1.473	0.028	missing 2	1.214	0.166
	missing 2	1.204	0.224	missing 1	1.158	0.171
	missing 1	1.148	0.244	real team	1.008	0.954
All clinical staff	no team	0.785	0.000	missing 3	1.559	0.000
	missing 3	1.224	0.000	missing 2	1.413	0.000
	missing 2	1.109	0.010	missing 1	1.469	0.000
	missing 1	1.153	0.000	real team	1.274	0.000

Table a2.12: **Team-based working as a predictor of experienced physical violence from patients / service users**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	missing a, b, c	1.205	0.000	missing a, b, c	1.485	0.000
	missing b, c	1.056	0.454	missing b, c	1.301	0.001
	missing a, c	1.200	0.000	missing a, c	1.480	0.000
	missing a, b	0.901	0.249	missing a, b	1.111	0.292
	missing c	1.235	0.000	missing c	1.522	0.000
	missing b	0.820	0.006	missing b	1.011	0.900
	missing a	0.971	0.612	missing a	1.197	0.013
All staff in Acute Trusts	missing a, b, c	1.151	0.034	missing a, b, c	1.612	0.000
	missing b, c	1.067	0.512	missing b, c	1.496	0.000
	missing a, c	1.197	0.004	missing a, c	1.677	0.000
	missing a, b	0.938	0.636	missing a, b	1.314	0.066
	missing c	1.182	0.000	missing c	1.656	0.000
	missing b	0.954	0.663	missing b	1.336	0.019
	missing a	1.041	0.655	missing a	1.458	0.000
All staff in PCTs	missing a, b, c	1.441	0.005	missing a, b, c	1.635	0.008
	missing b, c	1.347	0.168	missing b, c	1.529	0.094
	missing a, c	1.300	0.049	missing a, c	1.476	0.039
	missing a, b	0.953	0.798	missing a, b	1.081	0.734
	missing c	1.425	0.000	missing c	1.617	0.003
	missing b	0.660	0.020	missing b	0.749	0.197
	missing a	1.056	0.682	missing a	1.199	0.340
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	1.108	0.302	missing a, b, c	1.269	0.104
	missing b, c	0.887	0.451	missing b, c	1.016	0.935
	missing a, c	1.118	0.218	missing a, c	1.281	0.080
	missing a, b	0.838	0.287	missing a, b	0.959	0.835
	missing c	1.442	0.000	missing c	1.652	0.000
	missing b	0.769	0.032	missing b	0.881	0.438
	missing a	0.955	0.634	missing a	1.093	0.543
All staff in Ambulance Trusts	missing a, b, c	1.474	0.028	missing a, b, c	1.485	0.016
	missing b, c	1.087	0.685	missing b, c	1.095	0.645
	missing a, c	1.244	0.220	missing a, c	1.254	0.174
	missing a, b	2.470	0.165	missing a, b	2.489	0.161
	missing c	1.154	0.230	missing c	1.163	0.160
	missing b	1.106	0.831	missing b	1.115	0.818
	missing a	0.992	0.983	missing a	0.999	0.998
All clinical staff	missing a, b, c	1.234	0.000	missing a, b, c	1.553	0.000
	missing b, c	1.073	0.379	missing b, c	1.351	0.001
	missing a, c	1.195	0.000	missing a, c	1.504	0.000
	missing a, b	0.894	0.244	missing a, b	1.125	0.272
	missing c	1.232	0.000	missing c	1.551	0.000
	missing b	0.834	0.023	missing b	1.050	0.599
	missing a	0.963	0.549	missing a	1.212	0.013

Is team-based working related to the level of experienced physical violence from work colleagues?

Table a2.13: **Team-based working as a predictor of experienced physical violence from work colleagues**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.855	0.246	pseudo team	1.655	0.000
	pseudo team	1.415	0.000	real team	1.169	0.246
All staff in Acute Trusts	no team	0.772	0.139	pseudo team	1.765	0.001
	pseudo team	1.362	0.000	real team	1.295	0.139
All staff in PCTs	no team	1.200	0.586	pseudo team	1.261	0.485
	pseudo team	1.514	0.014	real team	0.833	0.586
All staff in Mental Health / Learning Disability Trusts	no team	1.436	0.270	pseudo team	1.123	0.718
	pseudo team	1.614	0.003	real team	0.696	0.270
All staff in Ambulance Trusts	no team	0.306	0.029	pseudo team	2.647	0.027
	pseudo team	0.811	0.571	real team	3.263	0.029
All clinical staff	no team	0.896	0.554	pseudo team	1.733	0.002
	pseudo team	1.553	0.000	real team	1.116	0.554

Table a2.14: **Team-based working as a predictor of experienced physical violence from work colleagues**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.868	0.296	missing 3	2.568	0.000
	missing 3	2.230	0.000	missing 2	2.237	0.000
	missing 2	1.943	0.000	missing 1	1.256	0.095
	missing 1	1.091	0.282	real team	1.151	0.296
All staff in Acute Trusts	no team	0.786	0.167	missing 3	2.762	0.000
	missing 3	2.170	0.000	missing 2	2.417	0.000
	missing 2	1.899	0.000	missing 1	1.358	0.085
	missing 1	1.067	0.527	real team	1.273	0.167
All staff in PCTs	no team	1.238	0.524	missing 3	2.227	0.039
	missing 3	2.756	0.000	missing 2	1.787	0.109
	missing 2	2.211	0.000	missing 1	0.777	0.490
	missing 1	0.962	0.863	real team	0.808	0.524
All staff in Mental Health / Learning Disability Trusts	no team	1.458	0.251	missing 3	1.642	0.193
	missing 3	2.394	0.001	missing 2	1.278	0.495
	missing 2	1.864	0.007	missing 1	0.937	0.848
	missing 1	1.367	0.098	real team	0.686	0.251
All staff in Ambulance Trusts	no team	0.317	0.034	missing 3	3.102	0.038
	missing 3	0.984	0.975	missing 2	4.281	0.003
	missing 2	1.358	0.471	missing 1	1.983	0.139
	missing 1	0.629	0.239	real team	3.152	0.034
All clinical staff	no team	0.910	0.610	missing 3	2.843	0.000
	missing 3	2.587	0.000	missing 2	2.323	0.000
	missing 2	2.114	0.000	missing 1	1.309	0.150
	missing 1	1.191	0.072	real team	1.099	0.610

Table a2.15: **Team-based working as a predictor of experienced physical violence from work colleagues**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	missing a, b, c	2.254	0.000	missing a, b, c	2.605	0.000
	missing b, c	1.327	0.128	missing b, c	1.534	0.046
	missing a, c	2.407	0.000	missing a, c	2.782	0.000
	missing a, b	1.047	0.872	missing a, b	1.211	0.535
	missing c	1.050	0.579	missing c	1.214	0.168
	missing b	0.884	0.603	missing b	1.022	0.933
	missing a	1.549	0.006	missing a	1.791	0.003
All staff in Acute Trusts	missing a, b, c	2.177	0.000	missing a, b, c	2.787	0.000
	missing b, c	1.571	0.037	missing b, c	2.010	0.007
	missing a, c	2.120	0.000	missing a, c	2.713	0.000
	missing a, b	1.480	0.259	missing a, b	1.895	0.090
	missing c	0.996	0.972	missing c	1.275	0.181
	missing b	0.885	0.707	missing b	1.132	0.728
	missing a	1.919	0.002	missing a	2.456	0.000
All staff in PCTs	missing a, b, c	2.815	0.000	missing a, b, c	2.277	0.034
	missing b, c	0.748	0.690	missing b, c	0.605	0.518
	missing a, c	3.378	0.000	missing a, c	2.733	0.007
	missing a, b	0.869	0.814	missing a, b	0.703	0.594
	missing c	0.872	0.635	missing c	0.705	0.391
	missing b	0.789	0.647	missing b	0.638	0.450
	missing a	1.326	0.416	missing a	1.072	0.877
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	2.420	0.001	missing a, b, c	1.672	0.177
	missing b, c	1.183	0.749	missing b, c	0.817	0.732
	missing a, c	2.421	0.000	missing a, c	1.673	0.169
	missing a, b	0.452	0.433	missing a, b	0.312	0.268
	missing c	1.484	0.061	missing c	1.025	0.943
	missing b	1.109	0.824	missing b	0.766	0.624
	missing a	1.169	0.681	missing a	0.808	0.652
All staff in Ambulance Trusts	missing a, b, c	1.029	0.955	missing a, b, c	3.153	0.035
	missing b, c	0.442	0.304	missing b, c	1.354	0.715
	missing a, c	2.024	0.112	missing a, c	6.203	0.000
	missing a, b	0.000	0.998	missing a, b	0.000	0.999
	missing c	0.649	0.276	missing c	1.988	0.140
	missing b	0.000	0.998	missing b	0.000	0.998
	missing a	0.732	0.777	missing a	2.242	0.477
All clinical staff	missing a, b, c	2.613	0.000	missing a, b, c	2.865	0.000
	missing b, c	1.785	0.013	missing b, c	1.957	0.017
	missing a, c	2.457	0.000	missing a, c	2.695	0.000
	missing a, b	1.098	0.785	missing a, b	1.205	0.625
	missing c	1.168	0.142	missing c	1.281	0.194
	missing b	0.734	0.365	missing b	0.805	0.567
	missing a	1.675	0.006	missing a	1.836	0.015

Is team-based working related to levels of experienced harassment, bullying and abuse from patients?

Table a2.16: **Team-based working as a predictor of experienced harassment, bullying and abuse from patients / service users**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.883	0.000	pseudo team	1.226	0.000
	pseudo team	1.083	0.000	real team	1.132	0.000
All staff in Acute Trusts	no team	0.864	0.000	pseudo team	1.247	0.000
	pseudo team	1.077	0.001	real team	1.157	0.000
All staff in PCTs	no team	1.017	0.805	pseudo team	1.073	0.315
	pseudo team	1.091	0.015	real team	0.983	0.805
All staff in Mental Health / Learning Disability Trusts	no team	0.641	0.000	pseudo team	1.704	0.000
	pseudo team	1.092	0.016	real team	1.560	0.000
All staff in Ambulance Trusts	no team	1.359	0.013	pseudo team	1.033	0.729
	pseudo team	1.404	0.001	real team	0.736	0.013
All clinical staff	no team	0.875	0.000	pseudo team	1.252	0.000
	pseudo team	1.096	0.000	real team	1.142	0.000

Table a2.17: **Team-based working as a predictor of experienced harassment, bullying and abuse from patients / service users**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	0.883	0.000	missing 3	1.209	0.000
	missing 3	1.067	0.074	missing 2	1.227	0.000
	missing 2	1.083	0.003	missing 1	1.229	0.000
	missing 1	1.085	0.000	real team	1.133	0.000
All staff in Acute Trusts	no team	0.864	0.000	missing 3	1.209	0.002
	missing 3	1.045	0.384	missing 2	1.267	0.000
	missing 2	1.095	0.014	missing 1	1.246	0.000
	missing 1	1.076	0.002	real team	1.158	0.000
All staff in PCTs	no team	1.018	0.795	missing 3	1.053	0.607
	missing 3	1.071	0.387	missing 2	1.167	0.066
	missing 2	1.187	0.003	missing 1	1.039	0.605
	missing 1	1.057	0.184	real team	0.983	0.795
All staff in Mental Health / Learning Disability Trusts	no team	0.640	0.000	missing 3	1.672	0.000
	missing 3	1.070	0.418	missing 2	1.554	0.000
	missing 2	0.995	0.929	missing 1	1.771	0.000
	missing 1	1.133	0.003	real team	1.562	0.000
All staff in Ambulance Trusts	no team	1.355	0.014	missing 3	1.129	0.455
	missing 3	1.530	0.012	missing 2	0.883	0.349
	missing 2	1.197	0.198	missing 1	1.064	0.531
	missing 1	1.442	0.000	real team	0.738	0.014
All clinical staff	no team	0.876	0.000	missing 3	1.288	0.000
	missing 3	1.128	0.004	missing 2	1.296	0.000
	missing 2	1.135	0.000	missing 1	1.233	0.000
	missing 1	1.080	0.000	real team	1.142	0.000

Table a2.18: **Team-based working as a predictor of experienced harassment, bullying and abuse from patients / service users**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	missing a, b, c	1.074	0.050	missing a, b, c	1.213	0.000
	missing b, c	0.909	0.065	missing b, c	1.026	0.648
	missing a, c	1.192	0.000	missing a, c	1.346	0.000
	missing a, b	1.042	0.485	missing a, b	1.177	0.012
	missing c	1.137	0.000	missing c	1.283	0.000
	missing b	0.841	0.000	missing b	0.949	0.330
	missing a	1.053	0.202	missing a	1.189	0.000
All staff in Acute Trusts	missing a, b, c	1.050	0.334	missing a, b, c	1.214	0.001
	missing b, c	0.959	0.538	missing b, c	1.110	0.165
	missing a, c	1.200	0.000	missing a, c	1.388	0.000
	missing a, b	0.973	0.769	missing a, b	1.125	0.235
	missing c	1.113	0.000	missing c	1.287	0.000
	missing b	0.791	0.001	missing b	0.915	0.268
	missing a	1.050	0.433	missing a	1.215	0.006
All staff in PCTs	missing a, b, c	1.077	0.355	missing a, b, c	1.056	0.582
	missing b, c	0.992	0.952	missing b, c	0.974	0.850
	missing a, c	1.323	0.000	missing a, c	1.298	0.009
	missing a, b	1.129	0.219	missing a, b	1.107	0.377
	missing c	1.160	0.006	missing c	1.138	0.109
	missing b	0.893	0.178	missing b	0.876	0.204
	missing a	1.003	0.967	missing a	0.984	0.874
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	1.078	0.368	missing a, b, c	1.688	0.000
	missing b, c	0.747	0.025	missing b, c	1.169	0.301
	missing a, c	1.075	0.351	missing a, c	1.683	0.000
	missing a, b	1.079	0.541	missing a, b	1.690	0.000
	missing c	1.197	0.000	missing c	1.876	0.000
	missing b	0.839	0.059	missing b	1.315	0.024
	missing a	1.225	0.009	missing a	1.919	0.000
All staff in Ambulance Trusts	missing a, b, c	1.534	0.011	missing a, b, c	1.128	0.458
	missing b, c	0.982	0.924	missing b, c	0.722	0.076
	missing a, c	1.328	0.093	missing a, c	0.977	0.884
	missing a, b	2.418	0.138	missing a, b	1.779	0.333
	missing c	1.473	0.000	missing c	1.084	0.419
	missing b	1.857	0.106	missing b	1.366	0.417
	missing a	0.633	0.188	missing a	0.465	0.028
All clinical staff	missing a, b, c	1.134	0.003	missing a, b, c	1.290	0.000
	missing b, c	0.995	0.942	missing b, c	1.132	0.088
	missing a, c	1.234	0.000	missing a, c	1.404	0.000
	missing a, b	1.033	0.625	missing a, b	1.176	0.031
	missing c	1.115	0.000	missing c	1.269	0.000
	missing b	0.866	0.010	missing b	0.985	0.818
	missing a	1.084	0.079	missing a	1.233	0.000

Is team-based work related to levels of experienced harassment, bullying and abuse from work colleagues?

Table a2.19: **Team-based working as a predictor of experienced harassment, bullying and abuse from work colleagues**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	1.109	0.002	pseudo team	1.385	0.000
	pseudo team	1.536	0.000	real team	0.901	0.002
All staff in Acute Trusts	no team	1.083	0.065	pseudo team	1.402	0.000
	pseudo team	1.518	0.000	real team	0.923	0.065
All staff in PCTs	no team	1.132	0.107	pseudo team	1.390	0.000
	pseudo team	1.574	0.000	real team	0.883	0.107
All staff in Mental Health / Learning Disability Trusts	no team	1.256	0.010	pseudo team	1.246	0.013
	pseudo team	1.566	0.000	real team	0.796	0.010
All staff in Ambulance Trusts	no team	1.028	0.858	pseudo team	1.427	0.002
	pseudo team	1.468	0.003	real team	0.972	0.858
All clinical staff	no team	1.161	0.001	pseudo team	1.347	0.000
	pseudo team	1.564	0.000	real team	0.861	0.001

Table a2.20: **Team-based working as a predictor of experienced harassment, bullying and abuse from work colleagues**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	no team	1.115	0.001	missing 3	1.837	0.000
	missing 3	2.048	0.000	missing 2	1.712	0.000
	missing 2	1.908	0.000	missing 1	1.204	0.000
	missing 1	1.342	0.000	real team	0.897	0.001
All staff in Acute Trusts	no team	1.090	0.045	missing 3	1.882	0.000
	missing 3	2.052	0.000	missing 2	1.771	0.000
	missing 2	1.931	0.000	missing 1	1.225	0.000
	missing 1	1.336	0.000	real team	0.917	0.045
All staff in PCTs	no team	1.141	0.088	missing 3	1.923	0.000
	missing 3	2.194	0.000	missing 2	1.728	0.000
	missing 2	1.971	0.000	missing 1	1.137	0.122
	missing 1	1.297	0.000	real team	0.877	0.088
All staff in Mental Health / Learning Disability Trusts	no team	1.261	0.009	missing 3	1.452	0.001
	missing 3	1.832	0.000	missing 2	1.468	0.000
	missing 2	1.852	0.000	missing 1	1.119	0.226
	missing 1	1.411	0.000	real team	0.793	0.009
All staff in Ambulance Trusts	no team	1.043	0.787	missing 3	1.957	0.000
	missing 3	2.041	0.000	missing 2	1.586	0.002
	missing 2	1.654	0.002	missing 1	1.292	0.032
	missing 1	1.347	0.026	real team	0.959	0.787
All clinical staff	no team	1.164	0.001	missing 3	1.781	0.000
	missing 3	2.074	0.000	missing 2	1.651	0.000
	missing 2	1.923	0.000	missing 1	1.184	0.000
	missing 1	1.378	0.000	real team	0.859	0.001

Table a2.21: **Team-based working as a predictor of experienced harassment, bullying and abuse from work colleagues**

		Real team			No team	
		Exp(B)	Sig.		Exp(B)	Sig.
All staff	missing a, b, c	2.056	0.000	missing a, b, c	1.855	0.000
	missing b, c	1.361	0.000	missing b, c	1.228	0.001
	missing a, c	2.286	0.000	missing a, c	2.062	0.000
	missing a, b	1.653	0.000	missing a, b	1.491	0.000
	missing c	1.308	0.000	missing c	1.180	0.000
	missing b	1.142	0.012	missing b	1.030	0.622
	missing a	1.712	0.000	missing a	1.544	0.000
All staff in Acute Trusts	missing a, b, c	2.059	0.000	missing a, b, c	1.898	0.000
	missing b, c	1.363	0.000	missing b, c	1.256	0.003
	missing a, c	2.347	0.000	missing a, c	2.164	0.000
	missing a, b	1.582	0.000	missing a, b	1.458	0.000
	missing c	1.295	0.000	missing c	1.194	0.000
	missing b	1.107	0.190	missing b	1.020	0.814
	missing a	1.943	0.000	missing a	1.791	0.000
All staff in PCTs	missing a, b, c	2.206	0.000	missing a, b, c	1.938	0.000
	missing b, c	1.478	0.003	missing b, c	1.298	0.076
	missing a, c	2.334	0.000	missing a, c	2.050	0.000
	missing a, b	1.772	0.000	missing a, b	1.556	0.000
	missing c	1.269	0.000	missing c	1.115	0.233
	missing b	1.133	0.197	missing b	0.995	0.967
	missing a	1.505	0.000	missing a	1.322	0.008
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	1.841	0.000	missing a, b, c	1.466	0.001
	missing b, c	1.497	0.003	missing b, c	1.193	0.260
	missing a, c	2.107	0.000	missing a, c	1.678	0.000
	missing a, b	1.549	0.002	missing a, b	1.234	0.190
	missing c	1.410	0.000	missing c	1.123	0.240
	missing b	1.255	0.041	missing b	1.000	0.998
	missing a	1.534	0.000	missing a	1.222	0.090
All staff in Ambulance Trusts	missing a, b, c	2.054	0.000	missing a, b, c	1.970	0.000
	missing b, c	0.913	0.708	missing b, c	0.875	0.573
	missing a, c	2.141	0.000	missing a, c	2.054	0.000
	missing a, b	3.577	0.018	missing a, b	3.431	0.021
	missing c	1.329	0.036	missing c	1.275	0.044
	missing b	1.102	0.834	missing b	1.057	0.904
	missing a	2.073	0.030	missing a	1.989	0.040
All clinical staff	missing a, b, c	2.085	0.000	missing a, b, c	1.793	0.000
	missing b, c	1.330	0.000	missing b, c	1.144	0.118
	missing a, c	2.266	0.000	missing a, c	1.948	0.000
	missing a, b	1.633	0.000	missing a, b	1.405	0.000
	missing c	1.373	0.000	missing c	1.180	0.001
	missing b	1.124	0.089	missing b	0.967	0.674
	missing a	1.609	0.000	missing a	1.383	0.000

APPENDIX 2

Team-based working as a predictor of psychological well-being

In this appendix we present more detailed analysis conducted to examine the relationship between team-based working and three measures of psychological well-being:

- Staff job satisfaction
- Work pressures felt by staff
- Staff intention to leave jobs

Details of the psychological well-being variables can be found in **Appendix 1**.

In chapter three we presented details of analysis conducted which examined such relationships across all trusts which participated in the 2006 national NHS staff survey – in this appendix we present more detailed analysis which looks at these relationship across different trust types (**acute**, **primary care**, **mental health** and **ambulance trusts**) and where **only clinical staff** (e.g. medical and nursing staff, allied health professionals etc.) are selected.

Three types of analysis are presented. Firstly, respondents were asked whether they worked in a team. If a respondent gave the answer 'no', they were classified as not working in a team (shown as 'no team' in tables). If a respondent gave the answer 'yes', they were assigned into one of two further groups basing on the answers to the following three questions:

a) Whether the team they worked in had clear objectives;
b) Whether they had to work closely with other team members to achieve the team's objectives; and
c) Whether the team met regularly to discuss its effectiveness and how it could be improved.

If the respondents answered 'yes' to all three questions above, they were classified as working in a 'real team' (shown as 'real team' in tables). If they answered, 'no' to any of the three questions above they were initially classified as working in a 'pseudo team' (shown as 'pseudo team' in tables). Details of this analysis for each of the safety at work variables are reported in tables **a2.22**, **a2.25** and **a2.28**.

Secondly, we re-calculated the responses for the 'pseudo team' group into three categories according to whether respondents worked in a 'pseudo team' which is:

- missing all three of the criteria of a 'real team' (shown as 'missing 3' in tables)
- missing any two of the criteria of a 'real team' (shown as 'missing 2' in tables)
- missing only one of the criteria of a 'real team' (shown as 'missing 1' in tables)

Details of this analysis for each of the safety at work variables are reported in tables **a2.23**, **a2.26** and **a2.29**.

Thirdly, we re-calculated the responses for the 'pseudo team' group responses into seven categories according to whether respondents worked in a 'pseudo team' which is:

- missing all three of the criteria ('No' to questions a, b and c above) (shown as 'missing a, b, c' in tables)
- missing two of the criteria: Answering 'Yes' to question a only (shown as 'missing b, c' in tables)
- missing two of the criteria: Answering 'Yes' to question b only (shown as 'missing a, c' in tables)
- missing two of the criteria: Answering 'Yes' to question c only (shown as 'missing a, b' in tables)
- missing one of the criteria: Answering 'Yes' to questions a and b (shown as 'missing c' in tables)
- missing one of the criteria: Answering 'Yes' to questions a and c (shown as 'missing b' in tables)
- missing one of the criteria: Answering 'Yes' to question b and c (shown as 'missing a' in tables y)

Details of this analysis for each of the safety at work variables are reported in tables **a2.24**, **a2.27** and **a2.30**.

Note the figure reported in the tables in the Beta columns represents the 'standardised beta coefficient' so a positive score would indicate that the respondent in this group experienced higher job satisfaction, work pressure or intention to leave when compared with a comparator group - in the first set of rows the comparator group was 'working in a real team', and in the second set of rows the comparator group was 'not working in a team'.

Is team-based work related to staff job satisfaction?

Table a2.22: **Team-based working as a predictor of staff job satisfaction**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	no team	-0.059	0.000	pseudo team	-0.085	0.000
	pseudo team	-0.187	0.000	real team	0.105	0.000
All staff in Acute Trusts	no team	-0.064	0.000	pseudo team	-0.078	0.000
	pseudo team	-0.187	0.000	real team	0.112	0.000
All staff in PCTs	no team	-0.047	0.000	pseudo team	-0.109	0.000
	pseudo team	-0.192	0.000	real team	0.088	0.000
All staff in Mental Health / Learning Disability Trusts	no team	-0.039	0.000	pseudo team	-0.110	0.000
	pseudo team	-0.184	0.000	real team	0.077	0.000
All staff in Ambulance Trusts	no team	-0.121	0.000	pseudo team	-0.016	0.291
	pseudo team	-0.166	0.000	real team	0.122	0.000
All clinical staff	no team	-0.059	0.000	pseudo team	-0.069	0.000
	pseudo team	-0.189	0.000	real team	0.124	0.000

Table a2.23: **Team-based working as a predictor of staff job satisfaction**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	no team	-0.060	0.000	missing 3	-0.095	0.000
	missing 3	-0.137	0.000	missing 2	-0.096	0.000
	missing 2	-0.154	0.000	missing 1	-0.031	0.000
	missing 1	-0.122	0.000	real team	0.107	0.000
All staff in Acute Trusts	no team	-0.065	0.000	missing 3	-0.091	0.000
	missing 3	-0.135	0.000	missing 2	-0.097	0.000
	missing 2	-0.160	0.000	missing 1	-0.025	0.000
	missing 1	-0.126	0.000	real team	0.115	0.000
All staff in PCTs	no team	-0.048	0.000	missing 3	-0.108	0.000
	missing 3	-0.144	0.000	missing 2	-0.099	0.000
	missing 2	-0.149	0.000	missing 1	-0.046	0.000
	missing 1	-0.117	0.000	real team	0.090	0.000
All staff in Mental Health / Learning Disability Trusts	no team	-0.040	0.000	missing 3	-0.104	0.000
	missing 3	-0.135	0.000	missing 2	-0.106	0.000
	missing 2	-0.150	0.000	missing 1	-0.050	0.000
	missing 1	-0.115	0.000	real team	0.079	0.000
All staff in Ambulance Trusts	no team	-0.125	0.000	missing 3	-0.068	0.000
	missing 3	-0.148	0.000	missing 2	-0.058	0.000
	missing 2	-0.159	0.000	missing 1	0.022	0.174
	missing 1	-0.136	0.000	real team	0.127	0.000
All clinical staff	no team	-0.060	0.000	missing 3	-0.087	0.000
	missing 3	-0.137	0.000	missing 2	-0.084	0.000
	missing 2	-0.152	0.000	missing 1	-0.018	0.002
	missing 1	-0.126	0.000	real team	0.125	0.000

Table a2.24: **Team-based working as a predictor of staff job satisfaction**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	missing a, b, c	-0.138	0.000	missing a, b, c	-0.096	0.000
	missing b, c	-0.058	0.000	missing b, c	-0.026	0.000
	missing a, c	-0.142	0.000	missing a, c	-0.098	0.000
	missing a, b	-0.057	0.000	missing a, b	-0.031	0.000
	missing c	-0.111	0.000	missing c	-0.030	0.000
	missing b	-0.018	0.000	missing b	0.019	0.000
	missing a	-0.078	0.000	missing a	-0.040	0.000
All staff in Acute Trusts	missing a, b, c	-0.136	0.000	missing a, b, c	-0.092	0.000
	missing b, c	-0.061	0.000	missing b, c	-0.026	0.000
	missing a, c	-0.152	0.000	missing a, c	-0.104	0.000
	missing a, b	-0.048	0.000	missing a, b	-0.024	0.000
	missing c	-0.119	0.000	missing c	-0.025	0.000
	missing b	-0.015	0.000	missing b	0.020	0.000
	missing a	-0.072	0.000	missing a	-0.036	0.000
All staff in PCTs	missing a, b, c	-0.145	0.000	missing a, b, c	-0.109	0.000
	missing b, c	-0.049	0.000	missing b, c	-0.025	0.000
	missing a, c	-0.126	0.000	missing a, c	-0.091	0.000
	missing a, b	-0.079	0.000	missing a, b	-0.051	0.000
	missing c	-0.096	0.000	missing c	-0.041	0.000
	missing b	-0.024	0.000	missing b	0.013	0.027
	missing a	-0.090	0.000	missing a	-0.053	0.000
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	-0.137	0.000	missing a, b, c	-0.106	0.000
	missing b, c	-0.061	0.000	missing b, c	-0.039	0.000
	missing a, c	-0.135	0.000	missing a, c	-0.101	0.000
	missing a, b	-0.056	0.000	missing a, b	-0.036	0.000
	missing c	-0.099	0.000	missing c	-0.047	0.000
	missing b	-0.019	0.000	missing b	0.011	0.093
	missing a	-0.084	0.000	missing a	-0.051	0.000
All staff in Ambulance Trusts	missing a, b, c	-0.149	0.000	missing a, b, c	-0.069	0.000
	missing b, c	-0.062	0.000	missing b, c	0.006	0.657
	missing a, c	-0.159	0.000	missing a, c	-0.080	0.000
	missing a, b	-0.043	0.000	missing a, b	-0.022	0.057
	missing c	-0.136	0.000	missing c	0.021	0.182
	missing b	-0.009	0.439	missing b	0.025	0.037
	missing a	-0.050	0.000	missing a	-0.012	0.307
All clinical staff	missing a, b, c	-0.138	0.000	missing a, b, c	-0.088	0.000
	missing b, c	-0.051	0.000	missing b, c	-0.019	0.000
	missing a, c	-0.140	0.000	missing a, c	-0.088	0.000
	missing a, b	-0.057	0.000	missing a, b	-0.025	0.000
	missing c	-0.113	0.000	missing c	-0.016	0.002
	missing b	-0.019	0.000	missing b	0.021	0.000
	missing a	-0.080	0.000	missing a	-0.035	0.000

Is team-based work related to work pressures felt by staff?

Table a2.25: **Team-based working as a predictor of work pressure felt by staff**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	no team	0.012	0.000	pseudo team	0.035	0.000
	pseudo team	0.055	0.000	real team	-0.021	0.000
All staff in Acute Trusts	no team	0.015	0.000	pseudo team	0.022	0.001
	pseudo team	0.048	0.000	real team	-0.027	0.000
All staff in PCTs	no team	0.014	0.013	pseudo team	0.042	0.000
	pseudo team	0.067	0.000	real team	-0.026	0.013
All staff in Mental Health / Learning Disability Trusts	no team	-0.008	0.201	pseudo team	0.075	0.000
	pseudo team	0.059	0.000	real team	0.016	0.201
All staff in Ambulance Trusts	no team	0.020	0.267	pseudo team	0.031	0.078
	pseudo team	0.056	0.003	real team	-0.020	0.267
All clinical staff	no team	0.017	0.000	pseudo team	0.023	0.001
	pseudo team	0.058	0.000	real team	-0.036	0.000

Table a2.26: **Team-based working as a predictor of work pressure felt by staff**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	no team	0.012	0.000	missing 3	0.027	0.000
	missing 3	0.035	0.000	missing 2	0.047	0.000
	missing 2	0.059	0.000	missing 1	0.013	0.005
	missing 1	0.031	0.000	real team	-0.021	0.000
All staff in Acute Trusts	no team	0.016	0.000	missing 3	0.022	0.000
	missing 3	0.032	0.000	missing 2	0.040	0.000
	missing 2	0.055	0.000	missing 1	0.002	0.690
	missing 1	0.027	0.000	real team	-0.028	0.000
All staff in PCTs	no team	0.014	0.011	missing 3	0.027	0.000
	missing 3	0.037	0.000	missing 2	0.053	0.000
	missing 2	0.067	0.000	missing 1	0.015	0.096
	missing 1	0.036	0.000	real team	-0.027	0.011
All staff in Mental Health / Learning Disability Trusts	no team	-0.008	0.222	missing 3	0.045	0.000
	missing 3	0.039	0.000	missing 2	0.071	0.000
	missing 2	0.062	0.000	missing 1	0.044	0.000
	missing 1	0.031	0.000	real team	0.015	0.222
All staff in Ambulance Trusts	no team	0.021	0.249	missing 3	0.031	0.048
	missing 3	0.044	0.006	missing 2	0.024	0.136
	missing 2	0.042	0.015	missing 1	0.025	0.180
	missing 1	0.052	0.009	real team	-0.021	0.249
All clinical staff	no team	0.017	0.000	missing 3	0.017	0.000
	missing 3	0.032	0.000	missing 2	0.042	0.000
	missing 2	0.062	0.000	missing 1	0.003	0.641
	missing 1	0.034	0.000	real team	-0.036	0.000

Table a2.27: **Team-based working as a predictor of work pressure felt by staff**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	missing a, b, c	0.036	0.000	missing a, b, c	0.029	0.000
	missing b, c	-0.005	0.049	missing b, c	-0.011	0.000
	missing a, c	0.065	0.000	missing a, c	0.058	0.000
	missing a, b	0.036	0.000	missing a, b	0.032	0.000
	missing c	0.014	0.000	missing c	0.000	0.951
	missing b	-0.006	0.027	missing b	-0.012	0.000
	missing a	0.064	0.000	missing a	0.058	0.000
All staff in Acute Trusts	missing a, b, c	0.033	0.000	missing a, b, c	0.023	0.000
	missing b, c	-0.006	0.084	missing b, c	-0.014	0.000
	missing a, c	0.067	0.000	missing a, c	0.056	0.000
	missing a, b	0.028	0.000	missing a, b	0.023	0.000
	missing c	0.014	0.000	missing c	-0.007	0.226
	missing b	-0.003	0.412	missing b	-0.011	0.007
	missing a	0.058	0.000	missing a	0.050	0.000
All staff in PCTs	missing a, b, c	0.038	0.000	missing a, b, c	0.028	0.000
	missing b, c	0.002	0.697	missing b, c	-0.005	0.436
	missing a, c	0.063	0.000	missing a, c	0.053	0.000
	missing a, b	0.046	0.000	missing a, b	0.038	0.000
	missing c	0.008	0.150	missing c	-0.007	0.350
	missing b	-0.005	0.358	missing b	-0.015	0.020
	missing a	0.075	0.000	missing a	0.065	0.000
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	0.040	0.000	missing a, b, c	0.048	0.000
	missing b, c	-0.005	0.428	missing b, c	0.000	0.978
	missing a, c	0.066	0.000	missing a, c	0.074	0.000
	missing a, b	0.040	0.000	missing a, b	0.044	0.000
	missing c	0.017	0.009	missing c	0.029	0.003
	missing b	-0.021	0.001	missing b	-0.014	0.063
	missing a	0.065	0.000	missing a	0.073	0.000
All staff in Ambulance Trusts	missing a, b, c	0.045	0.005	missing a, b, c	0.032	0.039
	missing b, c	-0.023	0.123	missing b, c	-0.034	0.022
	missing a, c	0.071	0.000	missing a, c	0.059	0.000
	missing a, b	0.025	0.067	missing a, b	0.022	0.112
	missing c	0.041	0.039	missing c	0.016	0.404
	missing b	0.019	0.171	missing b	0.014	0.327
	missing a	0.067	0.000	missing a	0.061	0.000
All clinical staff	missing a, b, c	0.032	0.000	missing a, b, c	0.018	0.000
	missing b, c	-0.002	0.478	missing b, c	-0.011	0.002
	missing a, c	0.062	0.000	missing a, c	0.048	0.000
	missing a, b	0.038	0.000	missing a, b	0.030	0.000
	missing c	0.015	0.000	missing c	-0.012	0.052
	missing b	-0.003	0.446	missing b	-0.014	0.001
	missing a	0.066	0.000	missing a	0.053	0.000

Is team-based work related to staff intention to leave jobs?

Table a2.28: **Team-based working as a predictor of staff intention to leave**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	no team	0.017	0.000	pseudo team	0.053	0.000
	pseudo team	0.082	0.000	real team	-0.030	0.000
All staff in Acute Trusts	no team	0.019	0.000	pseudo team	0.051	0.000
	pseudo team	0.085	0.000	real team	-0.034	0.000
All staff in PCTs	no team	0.017	0.001	pseudo team	0.056	0.000
	pseudo team	0.087	0.000	real team	-0.032	0.001
All staff in Mental Health / Learning Disability Trusts	no team	0.000	0.991	pseudo team	0.073	0.000
	pseudo team	0.073	0.000	real team	0.000	0.991
All staff in Ambulance Trusts	no team	0.026	0.158	pseudo team	0.006	0.728
	pseudo team	0.039	0.042	real team	-0.026	0.158
All clinical staff	no team	0.023	0.000	pseudo team	0.041	0.000
	pseudo team	0.089	0.000	real team	-0.049	0.000

Table a2.29: **Team-based working as a predictor of staff intention to leave**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	no team	0.017	0.000	missing 3	0.051	0.000
	missing 3	0.063	0.000	missing 2	0.060	0.000
	missing 2	0.077	0.000	missing 1	0.022	0.000
	missing 1	0.049	0.000	real team	-0.031	0.000
All staff in Acute Trusts	no team	0.020	0.000	missing 3	0.046	0.000
	missing 3	0.060	0.000	missing 2	0.063	0.000
	missing 2	0.082	0.000	missing 1	0.022	0.000
	missing 1	0.053	0.000	real team	-0.036	0.000
All staff in PCTs	no team	0.018	0.001	missing 3	0.054	0.000
	missing 3	0.068	0.000	missing 2	0.064	0.000
	missing 2	0.083	0.000	missing 1	0.016	0.072
	missing 1	0.043	0.000	real team	-0.034	0.001
All staff in Mental Health / Learning Disability Trusts	no team	0.001	0.928	missing 3	0.064	0.000
	missing 3	0.064	0.000	missing 2	0.060	0.000
	missing 2	0.060	0.000	missing 1	0.040	0.000
	missing 1	0.041	0.000	real team	-0.001	0.928
All staff in Ambulance Trusts	no team	0.028	0.132	missing 3	0.032	0.046
	missing 3	0.049	0.003	missing 2	0.019	0.253
	missing 2	0.042	0.017	missing 1	-0.009	0.651
	missing 1	0.026	0.185	real team	-0.028	0.132
All clinical staff	no team	0.024	0.000	missing 3	0.043	0.000
	missing 3	0.062	0.000	missing 2	0.049	0.000
	missing 2	0.076	0.000	missing 1	0.015	0.020
	missing 1	0.058	0.000	real team	-0.050	0.000

Table a2.30: **Team-based working as a predictor of staff intention to leave**

		Real team			No team	
		Beta	Sig.		Beta	Sig.
All staff	missing a, b, c	0.063	0.000	missing a, b, c	0.052	0.000
	missing b, c	0.020	0.000	missing b, c	0.011	0.000
	missing a, c	0.073	0.000	missing a, c	0.061	0.000
	missing a, b	0.036	0.000	missing a, b	0.029	0.000
	missing c	0.035	0.000	missing c	0.013	0.002
	missing b	0.006	0.022	missing b	-0.004	0.171
	missing a	0.053	0.000	missing a	0.043	0.000
All staff in Acute Trusts	missing a, b, c	0.060	0.000	missing a, b, c	0.047	0.000
	missing b, c	0.021	0.000	missing b, c	0.010	0.011
	missing a, c	0.082	0.000	missing a, c	0.067	0.000
	missing a, b	0.032	0.000	missing a, b	0.025	0.000
	missing c	0.043	0.000	missing c	0.015	0.011
	missing b	0.005	0.170	missing b	-0.006	0.149
	missing a	0.053	0.000	missing a	0.042	0.000
All staff in PCTs	missing a, b, c	0.069	0.000	missing a, b, c	0.056	0.000
	missing b, c	0.023	0.000	missing b, c	0.015	0.011
	missing a, c	0.073	0.000	missing a, c	0.060	0.000
	missing a, b	0.044	0.000	missing a, b	0.034	0.000
	missing c	0.020	0.000	missing c	0.000	0.959
	missing b	0.009	0.074	missing b	-0.004	0.517
	missing a	0.055	0.000	missing a	0.042	0.000
All staff in Mental Health / Learning Disability Trusts	missing a, b, c	0.065	0.000	missing a, b, c	0.065	0.000
	missing b, c	0.019	0.001	missing b, c	0.020	0.004
	missing a, c	0.051	0.000	missing a, c	0.051	0.000
	missing a, b	0.033	0.000	missing a, b	0.033	0.000
	missing c	0.026	0.000	missing c	0.026	0.006
	missing b	0.003	0.621	missing b	0.003	0.677
	missing a	0.050	0.000	missing a	0.050	0.000
All staff in Ambulance Trusts	missing a, b, c	0.050	0.002	missing a, b, c	0.032	0.040
	missing b, c	-0.002	0.881	missing b, c	-0.017	0.267
	missing a, c	0.054	0.001	missing a, c	0.037	0.019
	missing a, b	0.023	0.105	missing a, b	0.018	0.192
	missing c	0.020	0.328	missing c	-0.014	0.456
	missing b	0.001	0.941	missing b	-0.006	0.661
	missing a	0.049	0.001	missing a	0.041	0.005
All clinical staff	missing a, b, c	0.063	0.000	missing a, b, c	0.043	0.000
	missing b, c	0.022	0.000	missing b, c	0.009	0.010
	missing a, c	0.071	0.000	missing a, c	0.050	0.000
	missing a, b	0.032	0.000	missing a, b	0.019	0.000
	missing c	0.044	0.000	missing c	0.007	0.262
	missing b	0.007	0.029	missing b	-0.009	0.023
	missing a	0.055	0.000	missing a	0.038	0.000

APPENDIX 3

EFFECTIVE TEAM-BASED ORGANISATIONS

Interview schedule with senior managers

APPENDIX 3

Interview schedule with senior managers:

1. Does the trust have any written policy documents relating to team-based work?
   If so, please explain what is included in these documents.

   Would you say that top management supports the concept of team-based working in the trust? Why?

2. How does the overall organisational structure facilitate effective team-based working in the trust? Communication channels, levels of hierarchy….

3. How do HR systems support effective team-based working in the trust? (e.g. training, assessment, reward systems)?
   For example, does employee remuneration include any element relating to the performance of the team?
   If so, please explain how this is calculated.

4. What percentage of the workforce would be required to work interdependently to complete their work related tasks (i.e. do people need to work with others to complete these tasks)?

5. Does this vary across occupational group? directorate/speciality? If so, please explain the differences.

6. We define a structured team as one where there team members have clear objectives, work closely together to achieve these objectives and meet regularly to discuss its performance. What percentage of the workforce would you say work in such a team in the trust?

7. How are individual teams identified / formed? (i.e. could this be on the basis of the task performed or department?).

8. What proportion of the teams in the trust would have a designated team leader?

9. How would these team leaders be selected?

10. Would you say that competition exists between certain teams?
    If competition does exist, what are the reasons for this competition? (i.e. status, insufficient resources, task related etc.)

11. Can you identify different types of teams that exist within the trust (i.e. uni-disciplinary, multi-disciplinary, inter-professional)?
    Would you say these differ at all in terms of effectiveness?

12. Please describe how team-based working in the trust has impacted on the quality of the service provided to patients/service users? (i.e. has it lead to improved, worsened, or had no impact on the quality of the service provided to patients/service users?).

APPENDIX 4

EFFECTIVE TEAM-BASED ORGANISATIONS

Focus Group schedule with staff members

APPENDIX 4

Focus Group schedule with staff members

1. How many different 'teams' do you work in at the trust? What would you consider to be the main team you work in most of the time?

   Thinking about your main 'team' (that is the 'team' you work in most of the time):

2. How many people work within your team?

3. What type of team is it? i.e. uni-disciplinary, multi-disciplinary, inter-professional?

4. Does your team have a clear 'leader'? How was this leader selected? (i.e. job role or person assumed role?).

5. What are the key tasks of the team? Are these tasks clearly defined? If so, by who? (i.e. team leader or team members roles or the trust?).

6. Does your team have objectives? Would you say that these objectives are clear? Who decides these objectives?

7. How would team members know their roles and responsibilities in this team?

8. How often do team members meet?

9. Please describe a typical team meeting (i.e. how is it structured? are these meetings formal? how long do they tend to last?)

10. During these meetings, does the team reflect and review its past performance, and how it could be improved?

11. Please describe how working in a team has impacted on the quality of the service you provide for patients/service users? (i.e. has it lead to improved, worsened, or had no impact on the quality of the service you provide for patients/service users?

12. Is there anything that I have not asked you that you think I should ask you about working in a team?

APPENDIX 5

TEAM-BASED WORKING INTERVENTIONS

Interview schedule with senior managers

APPENDIX 5

Interview schedule with senior managers:

Levels of team-based working

1. Does the trust have any written policy documents relating to team-based work? If so, please explain what is included in these documents.

2. Would you say top management supports the concept of team-based working in the trust? Why?

3. How does the overall organisational structure facilitate effective team-based working in the trust? (e.g. Communication channels, levels of hierarchy)

4. How do HR systems support effective team-based working in the trust? (e.g. training, assessment, reward systems). For example, does employee remuneration include any element relating to the performance of the team? If so, please explain how this is calculated.

5. What percentage of the workforce would be required to work interdependently to complete their work related tasks (i.e. Do people need to work with others to complete these tasks)?

6. Does this vary across occupational group? directorate/speciality? If so, please explain the differences.

7. We define a structured team as one where there team members have clear objectives, work closely together to achieve these objectives and meet regularly to discuss its performance. What percentage of the workforce would you say work in such a team in the trust?

8. How are individual teams identified / formed? (i.e. could this be on the basis of the task performed or department?).

9. What proportion of the teams in the trust would have a designated team leader? How would these team leaders be selected?

10. Would you say that competition exists between certain teams? If competition does exist, what are the reasons for this competition? (i.e. insufficient resources, status etc.)

11. Can you identify different types of teams that exist within the trust (i.e. uni-disciplinary, multi-disciplinary, inter-professional)? Would you say these differ at all in terms of effectiveness?

12. Please describe how team-based working in the trust has impacted on the quality of the service provided to patients/service users? (i.e. has it lead to improved, worsened, or had no impact on the quality of the service provided to patients/service users?).

Team-based working interventions

1. Has the trust tried to implement team-based working interventions in the trust? If so, please explain how it was implemented.

2. How were the team-based working interventions communicated to the workforce?

3. Were there any induction or training courses for the workforce? If so, please explain what was covered in the training courses for the workforce.

4. What have been the key barriers to the implementing team-based work interventions? (i.e. union/staff side resistance, staff/team leader reluctance).

5. What have been the key facilitators to the implementing team-based work interventions? (i.e. leadership style of CE or key directors, role of senior managers in creating a strategic vision and team leaders in promoting/implementing team-based working).

6. How successful have the team-based working interventions been? Please explain.

APPENDIX 6

TEAM-BASED WORKING INTERVENTIONS

Focus Group schedule with staff members

Focus Group schedule with staff members

Team-based working interventions

1. Has the trust tried to implement team-based working interventions in the trust? If so, please explain how it was implemented.

2. How were the team-based working interventions communicated to the workforce?

3. Were there any induction or training courses for the workforce? If so, please explain what was covered in the training courses for the workforce.

4. What have been the key barriers to the implementing team-based work interventions? (i.e. union/staff side resistance, staff/team leader reluctance).

5. What have been the key facilitators to the implementing team-based work interventions? (i.e. leadership style of Chief Executive or key directors, role of senior managers in creating a strategic vision and team leaders in promoting/implementing team-based working).

6. How successful have the team-based working interventions been? Please explain.

APPENDIX 7

ASTON TEAM PERFORMANCE INVENTORY (ATPI)

Description of the ATPI factors

TEAM IMPUTS

1. Task Design

This Dimension measures whether team members feel that:

- they need to work interdependently
- they are given clear feedback about how well the team is performing
- the team's work is relevant to the aims of the organisation
- the team has the necessary autonomy to carry out its work effectively
- they have a complete and challenging task to perform.

2. Team Effort and Skills

This Dimension measures:

- the level of motivation of team members
- the appropriateness of skills available to do the task
- the degree to which team members believe that the team can be successful.

3. Organisational Support

This Dimension measures team members' views on:

- the existence of a climate supportive of team working
- effective information and communication systems
- training for team working.

4. Resources

This Dimension measures the degree to which the team is provided with sufficient financial, technical, material and human resources to achieve its objectives.

TEAM PROCESSES

5. Objectives

This Dimension measures team members' views on:

- the clarity of the team's objectives
- the team's agreement of objectives
- the team's commitment to the achievement of objectives.

6. Reflexivity

This Dimension measures the extent to which the team takes time out from its work to review its objectives, its performance and ways of working.

7. Participation

This Dimension measures the extent to which team members feel that:

- trust, safety and support exists within the team
- everyone participates in decision-making
- they keep each other informed about work issues
- they meet and interact with sufficient frequency.

8. Task Focus

This Dimension measures the extent to which team members feel that:

- there is a focus on the needs of the client or customer
- they engage in constructive debates about how best to perform the team's work
- there is an emphasis on the quality of products or outputs from the team's work
- errors and mistakes are constructively discussed.

9. Team Conflict

This Dimension measures the degree to which team members feel that:

- there are conflicts about how to perform the team's task
- there is conflict amongst team members.

10. Creativity and Innovation

This Dimension measures team members' views on:

- the level of practical support for ideas for new and improved products, processes, services and ways of doing things within the team
- the degree to which the team climate supports innovation and creativity.

LEADERSHIP PROCESSES

11. Leading

This Dimension measures team members' views on the degree to which the team leader:

- works to acquire appropriate resources
- sets direction for the team
- provides support for innovation within the team.

12. Managing

This Dimension measures the extent to which team members feel that the team leader:

- guides the team towards effective team processes
- monitors performance
- encourages effective inter-team working
- recognises the performance and efforts of the team
- gives helpful feedback to the team and assists in developing a workable plan for improvement.

13. Coaching

This Dimension measures the extent to which the team leader is seen to:

- encourage learning from error
- be available to team members
- treat each team member as an individual
- provide encouragement and support during difficult or stressful tasks.

TEAM OUTPUTS

14. Team Member Satisfaction

This Dimension measures team members' satisfaction with:

- the recognition they receive from colleagues for their contribution to the team
- the level of responsibility they are given
- the support they receive from other team members
- the amount of openness in the team
- the level of influence they have over decisions
- the way in which conflict is resolved within the team.

15. Attachment

This Dimension measures the level of attachment felt by team members to the team and to its members.

16. Team Effectiveness

This Dimension measures the degree to which team members feel that:

- they receive sufficient praise from managers and others outside of the team
- they are made aware of the achievement of team goals.

17. Inter-team Relationships

This Dimension measures the degree to which team members feel that:

- there is a lack of conflict with other teams
- the team works co-operatively with other teams.

18. Team Innovation

This Dimension measures the extent to which the team develops new and improved products, services and ways of working.