Teamwork and Well-being: The Role of Social Support

Joanna Frances Lorraine Bell

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Summary

Teamwork and Well-being: The Role of Social Support

This thesis explores, in a team context, using the Michigan Model, the relationship between social support, stress and well-being outcomes. The studies reported were carried out in Post Office Ltd.

Study one examines differences in social support source and type for employees working in teams and quasi teams. Analysis was carried out at the individual level. The results supported previous work on well-being in teams: individuals working in teams report significantly higher levels of well-being, job satisfaction and organisational commitment than those individuals in quasi teams. Members of teams reported greater satisfaction with support from their manager and colleagues, and all types of support compared to members of quasi teams. Manager support and specific types of support mediated the relationship between team working and well-being outcomes. In terms of stressors, satisfaction with manager support and emotional challenge predicted greater influence which was positively related to the well-being outcomes.

Study two conducted at the team level builds on relationships established in study one. Stage one explored teamness, the extent to which, along a continuum the team was well-defined. Stage two explored teamness agreement, the extent to which the team agreed on their teamness. The extent to which the Branch Office were a well-defined team had a positive effect on team functioning; participation, innovation and commitment to task excellence. Team functioning was associated with higher levels of satisfaction with manager and team support and all types of support. Working in a well-defined team was associated with job satisfaction, mediated by positive team functioning and social support. Teamness agreement predicted team well-being, clarity of objectives, work demands and satisfaction with reality check. Working in a team was not associated with performance.

This thesis advances understanding in the area of team working and processes within teams, advancing understanding of the specifics of social support from different sources and types of support. The studies reveal the key role of team functional characteristics in creating the vehicle through which supportive interactions take place, which contribute to positive outcomes associated with working in a well-defined team.

KEY WORDS: social support, team work, stress, well-being

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Chapter 1

Introduction

Chapter Overview

This chapter presents an overview of the thesis, describing the content of the major sections of the document. The research questions are outlined and the research questions for the two studies reported in this thesis are detailed.

Research Objectives

Having worked and played in a variety of teams, I was intrigued to learn that within an organisational context individuals who work in teams experience better well-being than those individuals who work alone. As team working within organisations increases in prevalence, becoming a central component of HR strategies, organisational structures and business process redesigns (Sparrow, 1998), it is becoming increasingly pertinent to understand team structure, the development of relationships within teams and the implications for team outcomes, such as performance, and individual outcomes, such as well-being and job satisfaction.

The studies reporting a relationship between team working and well-being were carried out within a health care context, the British National Health Service (NHS) (Borrill et al, 1998; Carter, 2000). Carter (ibid) further suggested that this relationship is mediated by social support from colleagues. However this research study fails to explore in any detail the sources of the support or the types of support provided which contribute to the experience of well-being for team members. The current literature on social support within teams suggests the type of support provided by team members is dependent on their role in the team (Rosenfeld & Richman, 1997); and that perceptions of influence within the team effect the exchange of social support (Lantz & LaFlamme, 1996). The study of social support and its relationship to stress has generally focused on extremely stressful roles: emotionally demanding jobs in which employees encounter death and illness on a regular basis; are required to make frequent life and death decisions, and manage the people and situations

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surrounding such events, for example nurses (Firth et al., 1986; Parkes, 1982) and the military (Bliese & Castro, 2000; Manning & Fullerton, 1988).

The research studies reported in this thesis explore unanswered questions identified in the social support and team literature. The main aims of the research are to explore in detail social support in teams, considering the differences in social support associated with being a member of a well-defined team (team) compared to being a member of a less well-defined team (quasi team), and the impact of social support on individual and team outcomes. The research context was selected to provide an insight into well-being and social support in teams beyond the emotionally charged life and death issues faced within health service teams or the military, therefore enabling the impact of social support in teams to be explored within a more generalisable work context.

Addressing these aims advances the understanding of social support in well-defined teams as an explanation of why individuals working in teams experience better well-being. This also furthers the understanding of social support in greater depth and in a different context. These aims will be achieved by addressing the research questions stated below.

Study One

1. In an NHS context, health sector professionals experience better well-being when working in a well defined team; social support from colleagues mediate the relationship between being in a team and well-being. Can these findings be replicated in a service sector in which employees do not perform a care giving role?

2. Do employees who work in well-defined teams report greater satisfaction with support from different sources than those in less well-defined teams?

3. Do employees who work in well-defined teams report different levels of satisfaction with the types of support than those in less well-defined teams?

4. Do employees who work in well-defined teams report different work outcomes than those in less well-defined teams?

5. Do employees who work in teams report different types of work stressors than those in less well-defined teams?

Study Two

1.   Is the extent to which the unit are a team related to how well the group function? Is group functioning related to social support, work stressors, well-being and performance outcomes?

2.   What is the role of the manager's behaviour in predicting satisfaction with manager support and subsequent well-being and performance outcomes?

3.   Does agreement about the extent to which the unit are a team have a direct effect on team functioning, social support, stress, well-being and performance outcomes?

4.   Does agreement about the extent to which the unit are a team have a moderating effect on the relationship between the extent to which the unit are a team and team functioning, social support, stress, well-being and performance outcomes?

Overview of Thesis

The thesis consists of three sections. Chapters two to six introduce the research topics, reviewing research in the areas of social support, stress, work outcomes such as well-being, teams and social support within teams. Chapters detailing the organisational context, method, results and discussion for study one and the method, results and discussion for study two follow. The thesis concludes with a discussion integrating the research findings, addressing the theoretical and practical implications of the research and suggestions for further research.

The theory on which this research is based is the Michigan Model (French & Kahn, 1962; Katz & Kahn, 1978). This model is represented by a triangle, with social support at the top apex, stressors at the left apex and outcomes at the right apex.

Figure 1.01. Simplified: The hypothesised effects of social support on job stress (Marcelissen et al,(1988)
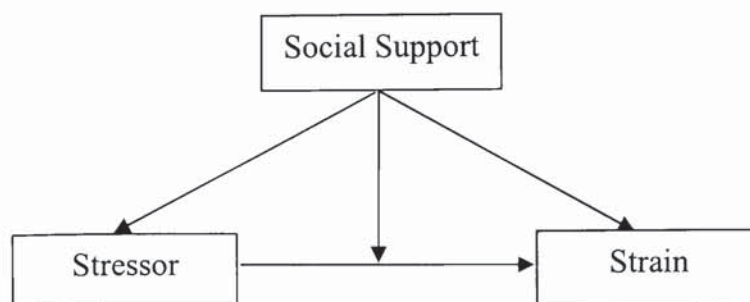
The topics at the apexes are related in a causal way, there is therefore overlap between the concepts when discussing each. To provide a clear structure for the presentation of the literature, the chapters will be organised around the structure of this model. In chapter two the social support literature is introduced and the limitations of the empirical research and theoretical development identified. Moving to the left apex of the Michigan Model, chapter three addresses the concept of stress and explores the causes of stress. Chapter four focuses on the remaining apex of the model: outcomes related to social support and the experience of stressors. The concepts addressed are well-being, job satisfaction, organisational commitment and performance. Following this, the next chapter introduces the context of the research: teams. The final literature chapter examines the current knowledge of social support in teams, reviews and integrates the gaps identified in the literature and states the research hypotheses.

In the second section, chapter seven describes the research setting, and chapters eight and nine detail the methodology, results and discussion for the first study. Chapters ten and eleven detail the methodology, results and discussion for the second study. In the final section of the thesis, chapter twelve, the research project is summarised. Then there is a discussion of the contribution of the research to current theory and understanding, and proposed future research directions. The appendix follows the references, containing examples of correspondences with the organisation, the research questionnaires, and detailed tables of analysis, of which summaries are presented in the main thesis.

Chapter Summary

This chapter has provided the background to the research; the research objectives and questions have been presented and an overview of the thesis structure provided. The following chapters will review the relevant literature, starting with social support.

Chapter 2

Social Support

Chapter Overview

This chapter focuses on social support, starting with an introduction to support, followed by a discussion of the relationship between social support and stress. The focus then turns to social support within a work environment.

Durkheim's (1951, as cited in Cohen, Gottlieb & Underwood, 2000) writings are often considered the roots of the social network approach in social support research, (Cohen, Gottlieb & Underwood, 2000) observing a relationship between social ties and psychological well-being. He noticed that suicides were more prevalent among those with fewer social ties and proposed that patterns in suicide rates were a reflection of the degree of cohesion and health of the society; concluding that social integration is required to maintain psychological well-being. Since this time social support has been a popular topic of exploration. Social support stems from many disciplines resulting in a confused and unclear body of literature. This chapter provides a structure that can be used to make sense of the literature, and which draws out the main themes. The research studies are then set within the context of this body of literature. Following a definition, the historical perspective, the predominant approach to understanding the development of social support research is reviewed. Issues of support measurement and operationalisation of the construct are addressed. The discussion then focuses on social support at work. The relative importance of different sources of support and types of support at work are reviewed.

Definition of Social Support

Shumaker and Brownell (1984:13) define social support as "an exchange of resources between at least two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient". The term exchange is included to emphasise that support involves two (plus) people and that there are potential gains and losses associated with the exchange. Thoits (1982) criticised such definitions which do not clarify resources. Kaplan, Cassell and Gore's, (1977:50) definition provides additional detail as to the nature

of support: "support is "metness" or gratification of a person's basic social needs through environmental supplies of support". Basic social needs are listed as approval, esteem and succorance (assistance). Kahn and Antonucci (1980) suggest social support is composed of three elements; affect, affirmation and aid: affect involves expressions of love or respect; affirmation is the acknowledgement of the appropriateness of individual's behaviour or attitudes; and aid involves direct assistance, such as loaning people money or helping them with their work. These definitions of social support reveal aspects involved in the operationalisation of social support, such as the role of the recipient, the provider, and the functions of support.

Historical Perspectives: Approaches to Studying Social Support

Social support like stress is a broad concept, and one which crosses a range of disciplines (e.g. epidemiology, sociology, clinical psychology, occupational psychology) (Buunk, 1990). Such diversity has resulted in a lack of conceptual and operational clarity. Within the psychological tradition those studying social support differ considerably in the extent to which they have attempted to develop systematic theories and to operationalise their constructs (e.g. Eaton, 1978; Henderson, 1980; Hirsch, 1979, 1980; Lowenthal & Haven, 1968). Winnubst et al., (1988) point out that many researchers in the field conduct research without attempting first to define the concept. A possible explanation is given by House (1981:13) when he describes social support "as a concept which everyone understands in a general sense". An alternative problem is that when researchers do provide a definition of support it is so vague that distinctive meaning is lost (Barrera, 1986). Hence the evident contradictory approaches to the subject area, and conceptual confusion which characterises the social support literature (Brownell & Shumaker, 1984). Circular definitions were also proposed, for example those put forward by House (1981). Consequently, the literature is complex and issues of validity exist, making it difficult to determine the extent to which findings can be generalised and/or support previous findings.

A popular approach when attempting to untangle the social support literature is to adopt a historical perspective (Sarason, Sarason & Pierce, 1990; Cohen, Underwood & Gottlieb, 2000). Thus, differing views may be seen as complementary to our understanding of social

support rather than contradictory, because each stage is considered a different level of analysis and dependent on the previous level (Winnubst et al., 1988). Burleson, Albrecht and Sarason (1994) suggest the evolution of social support research may be grouped into three approaches: network measures, psychological and communicative/interactional. This is not dissimilar to Cohen, Underwood and Gottlieb, (2000) who include an additional approach. They label the development stages of support as follows: the sociological tradition; the cognitive tradition; the interpersonal tradition; and the intervention tradition. Each of these perspectives will be described briefly, as it is useful in setting the scene and addressing the pleas of researchers in the subject area for conceptual clarity (e.g. Veiel & Baumann, 1992).

1. The Sociological Tradition / Network Tradition

Durkheim (1897/1951) may be considered one of the first to recognise the relationship between social ties and psychological well-being, noting that suicides were more prevalent among those with fewer social ties. Interest in social ties was rekindled during the 1970's and 1980's. The focus for research was social integration, or social embeddedness, specifically the diversity of the relationships in which an individual participates. Studies of the time suggested that compared to socially isolated individuals, those who took an active role within their community experienced better mental health (Bell, LeRoy & Stephenson, 1982; Miller & Ingram, 1979). Epidemiologists were also interested in the association between social ties and well-being. Studies within this discipline provided evidence for increased longevity among those socially integrated individuals. This approach to the study of social support assessed the support structure of the individual. It measured the existence of relationships, integration within a network, and aspects of the network, such as density and homogeneity.

There are three significant criticisms of the network approach. Firstly, there is increasing evidence suggesting only a weak association between the structural characteristics of networks and support leading to health-related outcomes. Secondly, not all social ties are health promoting; some may even be a cause of stress (e.g. Rook, 1984). Finally, empirical evidence suggests that better predictors of health outcomes are an individual's perception of social support available and the quality of this support rather than the network structure

itself (Kessler, 1992). Therefore while social integration is a necessity for supportive relationships it is alone not sufficient to ensure positive effects of interpersonal interactions.

2. The Cognitive Tradition

An alternative perspective is that of the cognitive tradition or the stress perspective. This is the most pervasive of the approaches, proposing that support contributes to health by protecting people from the adverse effects of stress either through the belief that support is available or through the supportive actions of others (Cassell, 1976; Cobb, 1976). Thus, two functions of support are evident; perceived support, which influences the appraisal of situations and is closely linked to the work of Lazarus and Folkman (1984); and received support which is thought to enhance the ability to cope with stressful events (Norris & Kaniasty, 1996).

Appraisal refers to how an individual interprets a situation thus determining the stressfulness of events (Lazarus, 1966; Lazarus & Folkman, 1984). Appraisal may take two forms: primary and secondary. Primary appraisal relates to the event itself, while secondary appraisal relates to the individual's personal and social resources available to cope with the threat/event. This approach to the study of social support assesses the individual's perception of support. Measures require respondents to evaluate the quality or availability of support. Supportive actions refer to the actual supportive behaviours, or received support. An example of how received support should promote coping is provided by the stress-support matching hypothesis (Cohen & McKay, 1984; Cutrona & Russell, 1990). This model proposes that the greater the match between the assistance and the demands of the stressors, the more coping will be promoted and the effects of the stressor reduced. Such an approach to assessing social support measures the frequency of support received or provided.

Perceived versus Received Support

While the above is clear as to which measure is appropriate depending on the appraisal or supportive actions perspective adopted; due to the atheoretical approach to social support research there is much contention surrounding which it is "best" to assess: perceived or

received support. The cognitive traditions perspective of the functional aspects of support is inherently multidimensional. "It is assumed that there are different types of supportive functions provided through social relationships, and it is posited that these functions may be differentially useful for various types of problems or stressors" (Wills & Shinar, 2000:87). Measures of perceived and received support are not interchangeable, as the processes they tap are not identical. Perceived support is the belief that one is accepted and loved (Pierce, Sarason & Sarason, 1991; Sarason, Shearin, Pierce & Sarason, 1987), thus the cognitive component of social support. While in contrast, received social support can be viewed as the behavioural component, requiring particular interpersonal transactions to take place (Dunkel-Schetter & Bennett, 1990). Dunkel-Schetter, Folkman and Lazarus, (1987) report that received social support was most strongly associated with personal predispositions, such as self-esteem and attitude towards help, while perceived support was most strongly related to instrumental aid, informational support and coping strategies.

Within the literature, perceived social support may also be referred to as available support or perceived available support. Sarason, Shearin, Pierce and Sarason (1987) suggest that it is the perception of support, rather than receipt that is most indicative of good adjustment. This view supports Wethington and Kessler (1986) in which perceived social support was found to be more predictive of well-being than the amount of social support received. Perceived adequacy of social support has repeatedly been found to relate positively to mental and physical health (Barrera, 1981, Hirsch, 1980). Helgeson (1993) also found that perceived social support had a greater impact on adjustment than received social support, suggesting that measuring received social support does not necessarily mean that needs are being met. However, Sarason, Levine, Basham and Sarason, (1983) and Schaefer, Coyne and Lazarus (1981) suggest that while structural support variables are empirically discriminable from the more subjective functional variables, they are correlated.

Wills and Shinar (2000) note that selecting a functions measure and an integration measure are not mutually exclusive. They also discuss the role of satisfaction with support. They recommend that availability of support (perceived support) as opposed to perceived adequacy of support is the "primary index" as research has shown the consistent effects of

perceived support availability. They reference studies within the epidemiology field that use mortality as an outcome measure. Satisfaction with support when of particular interest is advocated and is proposed to be especially relevant for intervention studies. Sarason, Shearin, Pierce and Sarason (1987) reported that availability and satisfaction with support were not strongly correlated, suggesting that satisfaction with support was most strongly associated with personal features while availability is related to social skills. "Thus there is clear rationale for including both availability and satisfaction measures" (Wills & Shinar, 2000: 116).

3. The Interpersonal Process Tradition

More recently interest in interventions has fuelled research on the dynamics involved in the expression and receipt of social support; the actual enactment of social support. Lakey and Cohen (2000) point out that research in this field accounts for the influence of personal, relational, situational and emotional characteristics on the association between support and health outcomes. Thus, the health effects of social support cannot be separated from relationship processes that often co-occur with support, such as companionship and intimacy. Measurement of social support within this perspective attempts to understand support as an interpersonal process. As such, three approaches can be identified. Firstly, features of supportive interactions, early approaches attempted to identify and classify the different aspects of support involved in social interaction. There are various typologies of support intended behaviours as a result of this line of enquiry. These typologies can also be used to assess perceptions and receipt of support of different types. Examples of such typologies are Barrera, Sandler and Ramsey's (1981) Inventory of Socially Supportive Behaviours developed from Gottleib's (1978) four classes of informal helping behaviours; emotionally sustaining behaviours, problem solving behaviours, indirect personal influence and environmental action; and House and Kahn's (1985) emotional, informational and tangible support. The second approach focuses on properties of the relationship in which social support occurs. This involves the development of frameworks classifying how support is provided and identifying the strategies involved in eliciting support. And thirdly, interpersonal predispositions that influence interaction and relationships. "Recipients of social support have personal state and trait characteristics that enhance or detract from their

ability or motivation to access support available from their environment" (Rosenfeld & Richman 1997:136). Examples of research in this area are Barbee's (1990) work on the role of mood in enacted support types; and the effect of social proficiency in the engagement of supportive behaviours (Hasson, Jones & Carpenter, 1984); suggesting that socially competent individuals are more adept at providing support (Hill, 1996). An example of a theory that draws on the multiple strands of this perspective is the interactional approach, proposed by Sarason et al., (1990). The impact of social support is based on the interaction between: personality characteristics (intrapersonal), interpersonal relationships (interpersonal) and the situations that stimulate supportive efforts (situational). However, in practice, it is very difficult to assess these three variables simultaneously within the field.

4. The Intervention Tradition

Both Cassell (1976) and Cobb (1976) recognised the importance of the role of social support, suggesting that it is necessary to "attempt to improve and strengthen the social supports rather than reduce the exposure to stressors" (Cobb, 1976:479). Early interventions, targeting community roles such as the police, teachers and members of the clergy, were designed to increase care giving skills. Such interventions did affect a change in the helping behaviours adopted by experimental groups when compared to control groups (Weisenfeld & Weis, 1979). An alternative approach to interventions was initiated during the 1970's with the initiation of purpose specific support groups. These were specific networks of individuals who had or were experiencing similar stressors, such as bereavement or incapacitating long-term illnesses. Such groups were found to be beneficial for the members, increasing their ability to adjust socially and emotionally (Vachon, Lyall, Rogers, Freedman-Letofsky & Freeman, 1980). A third way in which support can be mobilised is through the creation of mentoring programmes, a popular approach within organisations for new employees. Historically, interventions have seen a shift from teaching and developing skills in care giving roles to instigating changes in one's social network, and hence patterns of interaction in which support can be optimised.

To conclude, "social support should be guided by theory so that each study can add to our understanding about how social support influences health and well-being. Too many studies

address whether social support is related to health without providing information about how social support contributed to health" (Lakey & Cohen, 2000:45). The following section further clarifies social support and its components.

Operationalisation of Social Support

In the above section the historical perspectives of the study of social support and the subsequent appropriate ways in which to measure support were discussed. However, much of the literature operationalising social support does not fit neatly into the above categories, often drawing from more than one perspective. This explains Lakey and Cohen's (2000) plea for future social support research to be theory driven. These approaches, operationalisations and proposed measurement solutions are reviewed below.

Different aspects of social support have been identified in reviews of the construct. Thoits (1982) suggests the operationalisation of support in terms of support structure e.g the support network, and support function i.e. support type. Cohen and Wills (1985) infer from their review that support measures tend to assess support network or function; while House and Kahn (1985) identified function, structure and relationship quality as key facets in the study of support. Therefore drawing on both the network and interpersonal perspectives. However it is possible that combining the approaches leads to a richer assessment of the concept.

Although similar labels have been used, the definitions within these constructs differ greatly. **Support structure** refers to the existence of relationships, support network integration, aspects of the social network e.g. homogeneity, density, and content and quality of support. **Support function** is subjective in nature and may be described as "the extent to which one's interpersonal relationships provide particular resources" (Cohen & Wills, 1985:310) or "the degree to which the relationships involve flows of affect or emotional concern, instrumental or tangible aid, information, and the like" (House & Kahn, 1985:85).

McIntosh (1991) builds on support structure and support function as dimensions, considering social support in terms of dimensions (structures) and properties (functional).

She identifies source and type of support as the predominant dimensions, and the number of providers of the resource, amount of the resource available and perceived adequacy of the resource as key properties. Confounding of these aspects, she suggests, has resulted in the state of confusion surrounding social support. The number of providers identifies the quantity and confirms the existence of relationships. The amount of support indicates the degree of supportive resource available and perceived adequacy of support is the amount of support available compared to that needed or wanted. Henderson, Byrne and Duncan-Jones (1981) concluded that this dimension was more important than the availability of support as the amount wanted would differ on an individual and situation basis. McIntosh's (1991) study utilising these aspects of support revealed different relationships for the properties of support and perceptions of lower workload, physical symptoms, and exhaustion. Adequacy of support, which equates to satisfaction with support, had a main effect on stressors, reducing the perceptions of workload. The number of support providers had a curvilinear relationship to strain, with positive effects on strain at moderate numbers. The amount of support provided by a supervisor was found to be a critical variable when amount of support was disaggregated into the individual sources. McIntosh (ibid) suggests that adequacy of support (satisfaction) should be the measure used to assess main effects of social support on perceptions of stressors and amount of support and number of providers should be used to assess the main effects of social support on strain. The study also provides more evidence that the effects of support properties differ depending on the stressor and strain considered.

The approach described above addresses social support as a multidimensional construct. Other attempts to address the multidimensional nature of social support are proposed by Leatham and Duck (1990). As relationship psychologists, they view social support as based on the interaction and the "conduct of personal relationships" (pg. 3). They define the four key variables as: network structure, nature of relationship, content of interaction, and the impact of social support. They also advocate that the impact of social support "must be analysed on multiple levels" (pg. 20). Veiel (1985) proposed a differentiated framework in which to study social support. Suggesting the following questions should be addressed: What is provided? Who provides it? And how is it measured? The first question is

addressed through the support type; and the following dimensions are proposed: crisis to everyday; psychological to instrumental. These dimensions form a cross axis. The second question involves clarification of the source of support, the relational context. The third question involves the assessment focus, which equates to McIntosh's (1991) properties of support. This proposition is not dissimilar to House (1981), who proposed that the measurement of support should reveal "who gets how much of what kinds of support from whom regarding which problems" (pg. 39).

Cieslak et al., (2000) in their review of support literature draw on the chapter by Payne and Jones (1987), which attempts to delineate the social support construct and establish it's distinguishable dimensions. Five dimensions are proposed: **direction**, whether the individual receives and /or provides support; **type**, the character of the support; **source**, the provider of the support; **disposition**, the availability of support and provision when needed; and **description/evaluation**, the quality and quantity of support. Overlap can be seen between these and other dimensions suggested, such as satisfaction with support (Sarason, Sarason, Shearin & Pierce, 1987); and adequacy of support (McIntosh, 1991). It is therefore evident that the multidimensionality of social support is a key focus and many variations to encapsulate this feature have been suggested. However, in doing so, theoretical approaches and boundaries have become blurred and appropriate measures have not always been utilised. Thoits (1982) suggests that neglecting the multidimensionality of social support proves problematic, as unless the variables are examined relative to each other our understanding cannot progress. Despite such prescription, some researchers have reduced the mulitfaceted nature of the support and focused on mainly one facet: emotional support (e.g. Jayarante & Chess,1984; Zellars & Perrewe, 2001).

Suitable Measures of Support

As illustrated above, there are many and varied approaches to assessing social support, resulting in a plethora of measurement scales. A criticism of many of the empirical studies of social support is that new scales have frequently been developed for the purpose of individual studies and thus there is little consistency. Broadhead et al., (1983:156) even go so far as to say "the measures of social support were as varied as the number of

investigators". Various authors (Thoits, 1982; Vaux, 1992; Depner, Wethington & Ingersoll-Dayton, 1984) have requested that existing measures are used and therefore established in order to address this shortcoming. In addition some investigators have failed to reflect the multidimensionality of social support in their measure of the construct (Wilcox & Vernberg, 1985). Stressors vary in the type and the extent of the adaptational demands they make on an individual, just as support types differ with the adaptational demands they can effect. Specificity is recognised as a key criteria.

A social support measure that is in keeping with the theoretical position of the research reported in this thesis requires a scale that can be used within the workplace, measures perceived support (satisfaction with support), and takes into account different sources and types of support. Measures of support network resources are therefore not suitable, and measures or inventories of supportive behaviour are also unsuitable. Support appraisal measures are appropriate for this study, such measures are listed below, in chronological order.

Table 2.01 Social Support Scales

Originator	Scale Name
Caplan et al. (1975)	Social Support Questions
Barrera, (1981)	Arizona Social support interview schedule
Pines et al. (1981)	Support Functions Questionnaire
Billings & Moos (1982)	Work Relationship Index (section assessing supervisor support)
Vaux (1982)	Social Support Appraisals
Cohen & Hoberman (1983)	Interpersonal Support Evaluation List
Procidano & Heller (1983)	Perceived social support
Sarason, Levine, Basham & Sarason (1983)	Social Support Questionnaire
Russell & Cutrona (1984, cited in Cutrona & Russell, 1990)	Social Provisions Scale
Richman & Rosenfeld (1987)	Social Support Questionnaire
Beehr, King & King (1990)	Content of Communication

However, of the scales detailed above, few are suitable for use in a work environment and fewer still are able to assess a variety of support types from a range of work sources. Pines et al., (1981) in their study of burnout developed a support functions questionnaire that delineated support into six functions: listening, technical appreciation, technical challenge,

emotional support, emotional challenge, and shared social reality. The measure provides three types of data: who provides support, the types of support provided, and perceived amount of support provided. Pines et al. (ibid) suggest that when all the support functions are fulfilled an individual will be better protected from burnout. They suggest that it is important for individuals to learn to discriminate among the support functions. The questionnaire was later modified by Richman and Rosenfeld (1987) in their work on hospice workers. The modified version added practical aspects of support: tangible assistance support and personal assistance support to the original six types. The measure assessing eight types of support was later validated (Richman, Rosenfeld & Hardy, 1993). The eight distinguishable forms of support are: *task appreciation support*, the perception that others acknowledge the individuals effort and the work that they do (House, 1981; Yukl, 1994); *task challenge support*, the perception that the individual is challenged to think about a task or activity in a different way in order to stretch, motivate and involve the individual (Gottleib, 1978; Litwak & Messeri, 1989; Sarason et al., 1983); *tangible assistance support*, the perception of the availability of financial assistance or gifts (Caplan et al., 1980; House, 1981; Kahn & Antonucci, 1980; Veiel et al., 1991); *personal assistance support*, the perception that help or services are available, such as running an errand (Caplan et al., 1980; Cobb, 1979; House, 1981; Kahn & Antonucci, 1980; Veiel et al., 1991); *reality confirmation support*, the perception that others the individual has relationships with see things in the same way, thus confirming their perspective of the world (Dunkel-Schetter & Wortman, 1981; Gottlieb, 1983; Kahn & Antonucci, 1980); *emotional support*, the perception that one is cared for (Caplan, Cobb, French, Harrison & Pinneau, 1980; Cobb, 1976; Jayaratne & Chess, 1984, LaRocco, House & French, 1980); *emotional challenge support*, the perception that the individual is challenged to re-evaluate his/her feelings, values or attitudes (Plas, Hoover-Dempsey & Wallston, 1985); and *listening support*, the perception that an other is listening without being judgemental or giving advice (Gottlieb, 1983; Sarason et al., 1983). Specificity is recognised as a key criteria in the assessment of social support therefore an existing measure was adopted and modified slightly to gain specificity of support measurement. The modified measure is derived from Pines et al. (1981), and later Richman and Rosenfeld (1987). This scale has been validated and used extensively in research on social work personnel and sport teams. The modifications to the

scale are in keeping with McIntosh's (1991) conceptualisation, the two key dimensions of social support are considered; source (three types of relationship at work) and type (seven types). Properties assessed are perceived amount (amount) and satisfaction (adequacy) the third dimension, number of providers was dropped as the number in a team was being assessed in another question. In addition, the modification allows the development of a stressor specificity model of support processes as suggested, as a way to further develop understanding of social support (Cohen & McKay, 1984).

Social Support and the Experience of Stress and Related Outcomes

To gain a better understanding of social support it is necessary to appreciate the impact of social support on various other key psychological concepts. In the following section social support and its relationship to stress, well-being, job satisfaction and commitment to the organisation are discussed. As these terms are discussed fully in later chapters it is first necessary to briefly define them. Stress is a perceived imbalance between demands and response capability, under conditions where failure to meet the demands has important perceived consequences (adapted from McGrath, 1970:17-18). Stressor refers to any environmental, social, or internal demand which requires the individual to readjust their usual behaviour patterns (Holmes & Rahe, 1967), while strains refer to the demands themselves. Stress can be potentially damaging to the individual and impact negatively on their well-being (Beehr, 1995). Health and well-being vary considerably in their meanings and definitions, reflecting the broad and varied approaches to this concept (Danna & Griffin, 1999). Health and well-being is broad in scope, including the physical, mental, emotional and psychological aspects of an individual (Edwards, 1992). Warr (1996: 224) defines the study of well-being as examining "people's feelings about themselves and the settings in which they live and work". Warr introduced the notion of work place into the well-being discussion. Social support may also impact on aspects of the work environment such as job satisfaction and organisational commitment. Job satisfaction may be considered an "emotional-effective response to a job or specific aspects of a job (Locke, 1976; Smith et al., 1969)" (Spector, 1985:695). Satisfaction is an attitude and based on the general attitudinal literature, attitudes and behaviour are related. Multi-item measures of job satisfaction often focus on several facet specific satisfactions, such as pay, relationships with colleagues,

working conditions, and opportunity for promotion. The "nature of the work" facet is most strongly associated with overall job satisfaction and the other facet specific satisfactions (Warr, 1996). Job satisfaction may be conceptualised in terms of intrinsic and extrinsic satisfaction. Intrinsic satisfaction refers to features essential in performing the job, such as utilisation of skills and task variety. Extrinsic satisfaction refers to the aspects of the job not directly related to carrying out the task, such as satisfaction with pay and job security. Such features of the job are significantly related to well-being (Warr, 1987). Social support may also impact on the commitment of the individual to their organisation. Organisational commitment has three facets: affective, normative and continuance (Meyer & Allen, 1991). Affective commitment refers to the individual's emotional attachment to and their identification with the organisation. Normative commitment refers to commitment derived from a sense of obligation, and continuance commitment refers to the individual's appreciation of the associated costs of leaving the organisation.

The social support perspectives discussed above differ not only in the appropriate measuring of social support, but they also in the way in which they view the relationship between social support and the experience of stress. The exact nature of how social support interacts with stress to influence well-being is contentious, and may be seen to stem from different theoretical perspectives. Two hypotheses dominate the discussion, the direct and buffering (Daniels & Guppy, 1994). The direct effects hypothesis is based in the social constructionist or relationship perspectives, while the buffering effect hypothesis fits within the stress and coping paradigm. The direct effect of social support on well-being in statistical terms is a main effect; those who experience social support have better well-being and experience less stress than those who do not. The buffering hypothesis states that social support can counteract the negative effects of stress on well-being. Therefore, in statistical terms, an interaction is found in which there is a strong relationship between social support and well-being for those individuals experiencing high levels of stress; and no relationship between social support and well-being when stress is not experienced.

The differing perspectives may explain some of the confounding findings presented in the literature. Research was not always theoretically driven, thus all and any relationships were

sought between social support and health/strain. Many researchers seem unclear about their theoretical standpoint and therefore the implications of research questions and design. An additional factor contributing to the lack of clarity regarding the effect(s) of social support is the variety of contexts in which social support and stress have been considered. Empirical evidence now exists suggesting that the stress experienced is job specific and therefore social support needed may be very different in each context and will vary in impact (Beehr, Jex, Stacy & Murray, 2000). In addition, confusion and an inability to compare across studies is due to the variety of measures used to tap the social support construct and inconsistent measures of stressors and strain. For example, dependent on theoretical perspective, physical outcomes, such as heart rate have been considered as the independent variable (e.g. Steptoe, 2000) while in other studies, outcomes such as mental health, job satisfaction or performance have been considered (e.g. Williams, Ware & Donald, 1981; Ducharme & Martin, 2000; Beehr, Jex, Stacy & Murray, 2000). The measures used are inconsistent. Research on the main and buffering effects of social support and their relationship to stress and well-being (in generic terms) has primarily been assessed and analysed at the level of the individual, while more recently Bliese and colleagues (1998, 1999, 2000, 2001) have started to address stress and social support research at multiple and group levels. The following draws on reviews and meta-analyses of the relationship between stress and social support to highlight the mixed views and the extent of understanding to date.

LaRocco et al., (1980) concluded that the buffering hypothesis was supported for some strains but not for others. Social support reduced the relationship between various job stressors and indicators of mental health, but did not moderate the relationship between job stressors and specific job strains such as boredom, job dissatisfaction, and dissatisfaction with workload. Beehr (1985) notes both considerable evidence for main and buffering effects of social support, and also draws attention to reverse buffering. Buunk (1990) in his review also cites the following studies as support for the direct effect of social support: Caplan et al., (1975) found that a lack of support from supervisor and others at work correlated higher with depression than did stressors such as role conflict ambiguity and lack of participation; Browner (1987) found significant differences between those in cohesive

units and other units with regards to the Cornell Medical Index. Buunk cites several studies in which correlations between well-being and social support are on average around -0.03 (1990:310). He also notes that there are several studies in which social support had no effect on strain.

Rook (1984) suggests that social support may operate in at least four ways: increasing the individuals motivation to deal with stressors; altering the individual's cognitive analysis of the problems faced and of possible solutions; beneficial affect consequences, reducing anxiety and threats to the self-esteem; and increasing the resources needed to deal with problems via the services and material aid provided though one's social network. This corresponds to House's (1981) four types of support: appraisal, informational, emotional and instrumental. This perspective calls for an approach of social support in the work environment that analyses the interpersonal processes that take place, and views the asking, getting, and receiving of support as exchanges that occur in social and personal relationships between work employees. Kahn and Byosiere (1992) reviewed 22 studies and found that 20/22 reported main effects. In most cases the effect was present for support from both supervisors and co-workers. A recent meta-analysis carried out by Viswesvaran et al., (1999) examined evidence for eight process mechanisms: "the direct effects of social support on strains, direct effect of social support on stressors, two full mediation models, two partial mediation models, a suppressor model and a moderating model" (pg. 328). The analysis supports the coexistence of both the direct and buffering effect models. Despite there being minor limitations, Viswesvaren et al., (1999) propose that in the presence of strains social support is not mobilised, and that support does not appear to act as a moderator or suppressor variable in the relationship between stressor and strain. They propose that social support functions in a threefold manner. Primarily, it reduces strains, secondly it reduces the strength of the actual stressors and thirdly, the effects of the stressors on strain are alleviated. This supports the earlier work of Payne and Jones (1987). Viswesvaren et al., (1999) add that "future research should endeavour to refine theoretical models that guide how different sources of support can be matched to particular stressors and strains" (1999:328). Anomalies in the stress/social support relationship have also been reported, such as the reverse buffering effect (Kaufmann & Beehr, 1986) whereby social support

causes the relationship between stressors and strain to become stronger, not weaker as would be theorised.

Negative Aspect of Social Support

The giving and receiving of social support may not always result in positive outcomes for the individuals involved in the social exchanges (Buunk, 1990). Personal relationships in themselves can be stressful (Rook, 1984). However for the purpose of this research the positive aspects of social support are considered and therefore barriers to social support provision and receipt are not discussed. However, it is important to note that not all interactions have a positive outcome for individuals. Negative feelings or emotions may be evoked in response to an unpleasant interaction. Increases in social contact, social interaction and provision of social resources are not always heath protective or positive (Fisher et al., 1982; Hatfield & Sprecher, 1983) and while such interactions are of importance they are beyond the scope of this project.

Theoretical Position of the Thesis

The historical perspectives discussed have all in some way contributed to an understanding of social support, but also to the confusion that surrounds the concept of social support. In an attempt to reduce such confusion the following section explains the theoretical position of the study proposed in this thesis and the operationalisation of support approach that is adopted in the quest for a clearer understanding of the role of social support in well-being in teams.

This study adopts the cognitive perspective, whereby support is proposed to contribute to health by protecting the individual from the adverse effects of stress through the belief that support is available. This approach fits the cognitive tradition described in the historical perspectives section. A variation of the Michigan Model (French & Kahn, 1962; Katz & Kahn, 1978; Caplan et al., 1975) is used to represent the relationship between stressors, strain and social support, and accommodates the two hypotheses discussed earlier. The model, adapted from an early occupational stress model has been used extensively in social support/stress research. It assumes that certain stressors may occur in the subjective

environment of the individual which give rise to perceived job stressors. If these stressors are relatively permanent they may reduce the coping potential of the individual and stress reactions may result. Reactions may range from psychological, physiological, to behavioural. This theory is described in greater depth in the following chapter on stress. Social support is proposed to mitigate the effects of strain through several mechanisms. The diagram represent direct relationships when an arrow goes from one box to another, moderated relationships are represented by the arrow going from the box to a direct relationship arrow line. Therefore social support is proposed to moderate the relationship between stressor and strain, and to also have direct effects on the perception of the stressors and a direct effect on the experience of strain.

Figure 2.01. Model of the hypothesised effects between stressors, strains and health (La Rocco, House & French, 1980).
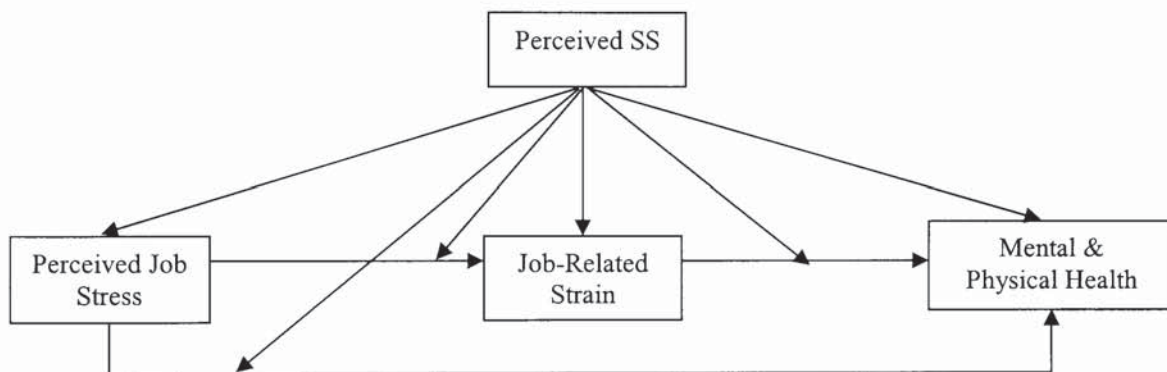
A simplified version of this model is also presented in the literature. This model has been validated and elaborated notably in Dutch research (Marcellisen et al, (1988) provide several examples). It is this model which will be adopted for this thesis, the direct and mediated effects of social support will be the focus of investigation.

Figure 2.02. Simplified: The hypothesised effects of social support on job stress (Marcelissen et al.,(1988)
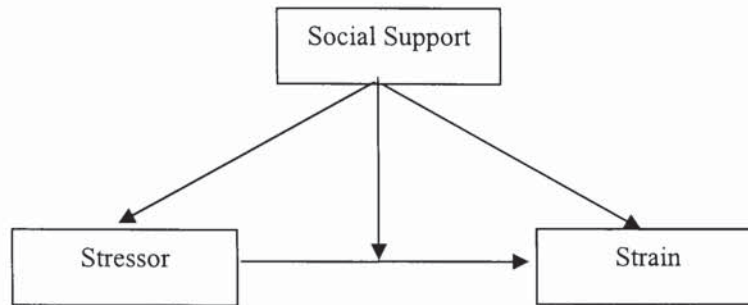
Summary

In this section historical perspectives in the study of social support have been reviewed and an explanation provided for the confusion in the literature. Issues relating to the operationalisation of social support were discussed, including the importance of multidimensionality. The measure used in the research reported in this thesis was explained and justified, followed by a review of the relationship between social support, stress and strain outcomes. The section concluded with clarification of the perspective adopted for this thesis.

In society today, adults spend a large proportion of their time at work, and therefore events which occur while on the job can have pervasive effects on individual well-being and health (House, 1981). Lindorff (2000: 271) states "the negative effect of stress on managers has been well documented" and as a consequence of stress, the performance of some managers may suffer, thereby potentially decreasing the effectiveness and efficiency of their employing organisation (Greenglass, 1993). Strategies which reduce management stress or alleviate it in some way are therefore worthy of attention, one such strategy is social support. House (1981) suggests that "the work organisation provides a good mechanism for efforts to enhance social support" (pg.116). While Kirmeyer and Lin (1987) develop this idea further, stating "supportive relations at work may be critically important to the maintenance of psychological well-being and physical health" (pg. 138). The following section will consider social support in the work place.

Social Support at Work

The previous section illustrated the mixed empirical findings regarding the relationship between social support and the experience of stress. It is important, however to pursue the quest for greater understanding, as the research, on the whole, suggests beneficial effects of social support at work. This, coupled with greater appreciation of the pervasive affect of stress within the work place, compels such enquiry: "the rapidly changing work place necessitates more attention to the role of support and other variables in the process of work place stress" (Viswesvaran et al., 1999:329). It is therefore important to study rewarding relationships at work, as they are "critical, not only to our productivity but also to our health and job satisfaction" (Cartwright & Cooper, 1997:75). Supportive relationships at work are less likely to create interpersonal pressures and will directly reduce levels of perceived job stress (Lazarus, 1966). It may therefore be considered that good relationships between members of a group are a key factor in individual and organisational health (Seyle, 1956). Hodson (1997) argues that a key contribution to employee job satisfaction, productivity and well-being is made by social relations in the workplace. The impetus therefore clearly exists to develop our understanding of relationships at work for both humane and economic rationale.

The impact of social support on a range of outcomes is clear, encompassing physiological to mental health, and job related outcomes (e.g. Uchino, Cacioppo & Kiecolt-Glaser, 1996; Turner, Frankel & Levin, 1983; Carlson & Perrewe, 1999). In the following section two key dimensions, source of support and type of support, are considered simultaneously in conjunction with their impact on employees within the work place.

Source and Type of Support

Social support can be provided by a variety of people, for example friends, family members, peers, managers and co-workers. However, it is difficult to establish the relative contribution of social support from such various sources (Carter, 2000). Existing studies may be divided into those investigating support in the family where support during mental/physical illness/difficulties is provided either by a family member or professional carer (medical or psychological) and social support at work.

Work related sources of support are most effective in reducing work stress and alleviating the impact of stress on health (House, 1981; Beehr, 1985). Empirical evidence supports a fit theory, whereby the effectiveness of the source of support is dependent on the source of stress. For example when stress is experienced at work, social support is best provided by a source at work. Colleagues at work have greater in-depth knowledge about the cause of the stress than a spouse and can therefore offer more appropriate support (Cutrona & Russell, 1990). Buunk (1990) draws attention to the differences between personal relationships and work relationships, pointing out that personal relationships involve accepting the other person unconditionally, showing concern for their well-being and taking care of the person without extrinsic rewards; while relationships at work are "professional", and are therefore subject to different conditions. For example, as employees depend upon their supervisors for promotion, they may not feel able to disclose feelings to them that may make them look incompetent or weak. Relationships with colleagues may also be subject to similar constraints, especially if characterised by competition (Buunk, 1990).

Cartwright and Cooper (1997) suggest that there are three critical relationships at work; those with the boss, subordinates and co-workers. An inconsistency or ambiguity within the literature exists when considering co-workers. Terms are used interchangeably and relationships are not defined. People other than one's supervisor or subordinates are referred to as peers, colleagues and co-workers. Each of these terms has slightly different connotations regarding the power relationship and therefore the potential for stress and support provision within the relationship. This makes it difficult to compare findings across studies with regards to the impact of support from others at work, excluding the supervisor.

Many studies have focused on determining which source of support at work is the most effective. The supervisor or manager is often hypothesised as the most effective source of support as he/she is "an influential member of the employee's role sets at work" (Beehr, King & King, 1990:63), and are more influential in the workplace than colleagues (Fenlassen & Beehr, 1994). Supervisor support effectiveness, is however, likely to be dependent on other factors, such as the number of employees under supervision, the nature

of the task and the relationship between the supervisor and subordinates (House 1981). It is also important to recognise that this relationship is a two way process. Buunk and Hoorens (1992) suggest that employees with high self-esteem may act in such a way as to instigate or prompt positive supervisor behaviours, including support. Van Dierkendonk, Buunk and Schaufeli, (1998) support this finding reporting a synchronous relationship between well-being and supervisory behaviour. Those subordinates who report greater feelings of self worth report their manager to be more active and supportive, while those who feel low self-worth report their manager to be less supportive. Supporting this, Buunk and Schaufeli (1993) found that people prefer to interact with others who experience good well-being as these interactions are more pleasant. While there is no evidence to suggest managers should be any different, there is the issue of their role and obligations within that role to the subordinates and the effective functioning of the work unit. Having acknowledged these additional complications/issues, the following paragraph reports findings relating to the most beneficial source of support.

Buunk et al., (1989) reviewed several empirical studies and state that with regards to the direct effect of social support, support from supervisors is associated with better mental health. Previously Buunk (1988, cited in Buunk, 1990) reported that perceived support from the supervisor was correlated with number of contacts, degree of intimate support provided and degree of rewarding companionship: while perceived support from colleagues was not related to social contact variables. Carlson and Perrewe (1999) provide the following examples of the effect of supervisor support: supportive supervisors have been found to facilitate employee job satisfaction (Parasuraman, Greenhaus, & Granrose, 1992) while supportive organisations have been found to be associated with increased organisational commitment (Scandura & Lankau, 1993). Ganster, Fusilier and Mayes (1986) conclude that social support, especially from one's supervisor is consistently related to positive affective and somatic outcomes. Considering the interactions between supervisors and subordinates in detail, Kirmeyer and Lin (1987) suggest the most effective support is subordinate initiated one-to-one interactions with the supervisor regarding job responsibilities. Kirmeyer and Dougherty (1988) and Russell, Altmaier and Van Velzen (1987) also support this view of support from supervisors being the most significant. While Caplan et al., (1975) found that

a lack of support from supervisor and others at work correlated higher with depression than did stressors such as role conflict, ambiguity and lack of participation.

The argument for the importance of co-worker support is backed by Cieslak et al., (2000), who reference the following research which suggests support from co-workers is more important than from family and supervisors: Burke and Greenglass (1996), and LaRocco, House and French (1980). However, Savery (1988:29) reports that "peers did not seem to be of use in most types of social support. Nevertheless, peers were useful for offering tangible assistance or information to make the working life of an individual easier if the individual was new to the position". Peers were used to obtain information and to empathise with work-based problems. Thereby, suggesting that the impact of co-worker support may be context specific. This is supported by studies examining the content of supportive communications, in which communicating with peers about work based traumatic events and positive communications about work had the greatest positive effect on the experience of posttraumatic stress syndrome (Stephens & Long, 2000). Savery (1988) also noted that co-workers might refrain from providing support when competition arises within the workplace, for example competition for promotion. This theme is later also proposed by Buunk (1990). It is also possible that in such circumstances co-workers may create additional stress.

To summarise, the current understanding on the difference between supervisor and co-worker support and the relative value: it is still unclear as to which source of support is the most effective (Fenlassen & Beehr, 1994). Buunk (1990:301) reviews the findings on the relative impact of social support from supervisor and colleagues and notes that "few differences have been found between support from one's supervisor and from one's colleagues. When differences are found, support from one's supervisor generally seems to be more effective in reducing stress reactions than support from one's colleagues (Constable & Russell, 1986; Repetti, 1987; Russell et al., 1987)".

The following paragraphs address the relative importance of support from supervisors and co-workers, and the nature of support from these sources on stress and related outcomes.

Terry, Nielson and Perchard (1993) considered the relationship between social support from three sources (supervisors, co-workers and non-work sources) and specific work stressors, testing for the main effects of work stress on well-being, social support on well-being, and a moderating effect of social support. They found that, irrespective of the level of stress, perceived availability of supervisor support had a significant main effect on well-being and job satisfaction. The findings provide some support for Cohen and Wills (1985) stress-support matching hypothesis and replicated the results reported by House and Wells (1978). Terry, Nielson and Perchard (1993) suggest that "if available support can assist the person to address the demands of the situation, then levels of social support will help ameliorate the negative effects of stress" (1993: 174). Furthermore, they suggest that in order to test the hypothesis more directly, functional measures of social support are needed. Buunk et al., (1989) report that the moderating effect of social support depended in part on the stressor. Moderation was found when the stressors consisted of role overload, lack of participation and job insecurity. The existence of moderation effects also depended on the nature of the strain measured e.g. blood pressure, anxiety. Job dissatisfaction and negative affect were most frequently influenced by social support. In work departments characterised by greater stress the impact of social support was greater. However, reverse buffering was also noted regarding responsibility and lack of participation: when these stressors were low, social support had a greater impact, notably in reducing job dissatisfaction. La Rocco et al., (1980) reported that the source of support influenced the strength of the moderating effect, with co-worker support having a greater moderating effect than support from supervisors. Sargent and Terry (2000) found evidence of significant quantitative work overload x perceived task control x social support interactions, in accordance with predictions. High levels of supervisor support buffered people in high strain clerical jobs specifically for job satisfaction and feelings of depersonalisation. High levels of co-worker support and non-work support under conditions of high strain were associated with higher levels of performance. This is consistent with the findings of Parkes, Mendham and Rabenau (1994), also extending their findings by pointing to particular sources of support that influence adjustment and performance. Cohen and Wills (1985) suggest that buffering effects of social support are most likely to be observed when support measures functional aspects relevant to the demands of the stressful situation. And more recently a moderation model

has been supported by Xie and Schauboreck (2002) in their longitudinal study of job demands and social support on stress, applying the demand-control model.

Additional support for the direction of causality between support, stressors and strain are provided by longitudinal studies carried out by Marcelissen, Buunk and de Wolff (1988), who concluded that the negative relationship between social support and psychological strain was more likely to be due to a reduction of social support being caused by more strain, rather than the traditional explanation that more social support causes a reduction in strain. In Carayon, Yang and Lim's (1995) three year longitudinal study of job design variables and worker strain, they report that social support and job control were negatively related to physiological measures of stress, while social support was positively related to job satisfaction. Lack of supervisor support was a main predictor of worker strain in the time one and time two, but not in time three. A possible explanation offered was that subordinate expectations changed regarding support from their supervisor and therefore support was sought from alternative sources. These relationships were supported by Carlson and Perrewe (1999) who found social support was positively related to job satisfaction, and reduced work conflict, work time demands and job insecurity.

Other studies have focused on the types of support and impact. Although only considering emotional support, Jayaratne and Chess, (1984) report that supervisor emotional support, when compared to co-worker emotional support, was more predictive of job satisfaction when employees experienced role ambiguity and role conflict. However, these differences were not significant. Beehr's (1985) model of the role of social support suggests that instrumental support has a main effect on job stressors, while emotional support has a main effect on strains and satisfying the individual's values and needs. Schenk, Kiniki and Davy (1997) also examined the differential impact of emotional and instrumental support. Findings support a conceptual distinction between instrumental and emotional support, thus strengthening the premise of social support as a multi-dimensional concept. They concluded that assistance leads to a positive affective state of satisfaction and acceptance, which may then prompt a person to search for sources of practical support. Thus, practical help is a key support function, as "the more practical assistance one receives the more one

feels valued by another individual" (pg. 119). The positive impact of practical assistance may be influenced by sex and work context. Lindorf (2000) reported that although men and women report similar amounts of perceived support at work, the effect of support in reducing strain was greater in females, while actually receiving emotional support was associated with increased strain for males, but not for females. In addition, for men, receiving emotional support and tangible assistance moderated the effects of perceived support, adding an alternative dimension to the findings of Schenk, Kiniki and Davy (1997) suggesting that for "important stressors" (pg. 282) support may not have positive consequences for male managers. It should however be noted that Lindorf (2000) obtained the individual's support score by combining both work and non-work sources and averaging the sources. It is therefore not possible to determine the source of support and subsequent effect. Etzion (1984) however, although still reporting sex differences in the moderating effects of social support, found that the work stress-strain relationship was moderated by supportive relationships in the work environment for men more than for women. Due to different approaches in the assessment of support it is difficult to compare the findings from these studies. To conclude the section on the impact of social support types, Ducharme and Martin (2000) studying affective and instrumental support and controlling for sex, found both support types to be beneficial for the individual regardless of the amount of stress experienced, concluding, "social relations of the workplace prove to be highly consequential for job satisfaction and well-being" (Ducharme & Martin, 2000:239).

The empirical findings do on the whole provide a consistent picture of the role of social support in the relationship between stressors and strain, despite apparent inconsistencies in specific mechanisms, and the stressors and outcomes influenced by support. A possible explanation for these differences may be due to failure to control for the effect of the respondents position with the organisational hierarchy. Marcelissen, Winnubst, Buunk and de Wolff (1988), examined social support and its effects on individuals at different levels within an organisation hierarchy. They found that employees in the highest and lower occupational levels perceived less support than the middle occupational levels, respondents from all levels of the hierarchy reported more support from colleagues than from supervisors, however co-worker support was not found to significantly effect strains. But in

the lower occupational group social support from supervisors had a stressor reducing effect; reducing role ambiguity, role overload, role conflict and job insecurity. While the findings provide evidence for the importance of social support with regards to occupational stress, they also suggest that the theoretical notions concerning the role of social support in alleviating stress may need drastic revision and that much more fine-grained analysis of the interpersonal environment in which social support takes place is necessary. Source of support may also be confounded with the type of support assessed. Whereby emotional support may be more effective from colleagues in reducing stress, yet if a different type of support had been assessed, for example task appreciation, this may have been more effective from the manger. Rosenfeld, Richman and Hardy (1989) suggest that different sources are better equipped to provide some types of support than others. It is also unclear from some reports as to whether sex was controlled for during the analysis. This could be a critical oversight as there are equivocal findings relating to sex: some studies do report sex differences (e.g. Cooper & Davidson, 1984 as cited in van der Pompe & de Heus) while others do not (e.g. van der Pompe & de Heus, 1993).

Conclusion

The historical development of social support and the many varied approaches to support measurement have been reviewed. The research reported in this thesis adopts the Michigan Model as the base from which to start the enquiry. Although criticisms of this model exist, social support is a complex phenomenon and therefore it is not possible for one model to encompass and address all issues relevant to social support and its relationship to well-being.

Acknowledging pleas of researchers to use established and validated measures of support, the measure used in the studies reported in this thesis is the most suitable developed measure meeting the research criteria: Rosenfeld and Richman's (1987) Social Support Survey. This measure assesses both source and type of support, acknowledging the multi-dimensional nature of support, and assesses types of support which are applicable in the work place. Of the two dominant hypotheses, direct and buffering effects of social support, the direct effects will be the focus of enquiry. Thoits (1982: 146) suggests that the direct effects of social

support have received less attention and that it is the relationship between social support and stress/outcomes which is "theoretically pertinent and practically significant". In addition House (1981) suggests that in occupational settings there are general direct effects of support but the buffering effects of support are more "limited" (pg. 84). Supporting this, Kahn and Byosiere (1992) conclude that there is more consistent evidence for the direct effect of social support on well-being.

At work, support is seldom considered from all groups of people an employee comes into contact with. The focus is often on either colleagues or supervisor support, or both and in a few cases subordinate support. There is also a lack of clarity relating to the terms co-worker, peer and colleague and therefore exactly who the support source is, in terms of relative position or the work relationship they have to the respondent. The study of support from multiple sources within the work place has often been neglected. Yet research on social exchange suggests that individuals can distinguish between the organisation, leader and team (Etchegaray et al., 2002) in the context of leader/team/organisation member exchange theory. Therefore it would be reasonable to assume that people can distinguish between many sources of support at work. The study reported in this thesis develops social support at work further by clarifying and distinguishing between those people respondents actually work with (e.g. team members) and others with whom the respondent has relationships at work, but do not work with directly e.g. colleagues. The studies in this thesis will therefore be clear about where support is coming from, i.e. the differences between team members and colleagues. In addition sex and position within the hierarchy are also controlled for, as this was also identified as a possible reason for lack of consistent findings.

The literature reveals limitations in the measurement of support and therefore the effects of support. There is a need for greater accuracy and specification when rating support at work. This requires a greater appreciation of the impact of support on stress. Stress is a key concept within the Michigan model and features predominantly in the discussion of social support, the following chapter clarifies the role of stress and causes of stress within a work environment.

Chapter 3

Stress

Chapter Overview

In the previous chapter social support theory and research was discussed in detail and the relationship between social support and stress examined. In order to impress upon the reader the negative consequences of stress, and argue that factors which may ameliorate the effects of stress should be considered, this chapter explores the concept of stress in greater detail, its causes, and effect on people within the work place.

Stress Theory

This chapter focuses on job related stress. The author acknowledges that stress can be a result of pressure outside the workplace, such as family relationships, money etc. However, as the studies reported in this thesis focus on social support at work and work related stressors, for the purpose of this review, the discussion of stress and related issues will focus on the job and workplace.

Stress is considered a major problem in organisations today. Keita and Hurell (1994) note that there is an "epidemic of stress-related disorders" in the workplace. However, not all authors and practitioners share this view. Reeves (2001) in his book "Happy Mondays: putting the pleasure back into work", writes about the "stress myth", suggesting that while stress does exist it is less of a problem when people are in control of their work and psychological health. He also points out that it is more stressful not to work, as work and identity are inextricably bound together. This premise is in keeping with the demand-control-support model described later. However, it is not always possible for individuals to have a high degree of control in their work, and lack of control is not the only cause of stress. The impact of stress can be seen at multiple levels, from the individual to the organisation and as such is a major concern not only to employees, but also to organisations and society as a whole.

At an individual level, stress effects relationships at work and home, and may result in mental and physical illness (Beehr, 1995). This can then impact others with whom the stressed individual has relationships, including colleagues e.g. colleagues may have additional workload (a source of strain) due to the absence of the "stressed" individual. At an organisational level, the Health and Safety Executive (HSE) estimates 6.5 million sick days are taken each year as a result of stress, leading to reduced productivity and lawsuits. The resulting cost to industry is gauged at £370 million a year, while the cost to society may be in the region of £3.75 billion. (The BBC news website, article dated 25.6.01). Research focusing on stress has measured outcomes ranging from job satisfaction, organisational commitment, performance, to physical and mental health/ well-being.

While the term stress is commonly used in everyday language there is some disagreement amongst academics as to what exactly stress is. This is in part due to the range of disciplines and perspectives involved in stress research e.g. biology, psychology, sociology, epidemiology (Buunk et al., 1998). The term stress was used predominantly during the 18th and 19th centuries with reference to science and engineering, to refer to a force or pressure exerted on a body. When the term was borrowed by medicine and biology it was used less precisely. For the purpose of this thesis, and drawing on the original proposition, stress may be defined as an external pressure that is exerted on a person, which in turn results in tension or strain (Kahn & Byosiere, 1992). The following section reviews models of occupational stress.

Models of Occupational Stress

Early models of occupational stress emerged from a research programme at the Institute of Social Research (ISR) at the University of Michigan during the 1960's and 70's (French & Kahn, 1962; Katz & Kahn, 1978); hence they are often referred to as the ISR or Michigan models. A variation of the Michigan model proposing a sequence of four variables was briefly introduced in the previous chapter. The Michigan model begins with the objective environment. This encompasses anything within the organisational environment which may be perceived by the employee, such as hierarchical structure. Next follows the psychological environment, in which the employee appraises their environment, which may

lead to the perception of psychological stressors, such as role overload. Following appraisal there may be a behavioural, affective or physiological response. The responses may lead to adverse changes in mental and physical health. The model also takes account of individual differences and interpersonal relationships, recognising that these differences may affect perceptions of the work place and subsequent appraisal and response. When tested empirically the model has received mixed support. This may be due to the fact that the model is created using a combination of conceptual categories, rather than being based in or reflecting a particular theoretical perspective. An example of a refinement of this model is the P-E fit model (French, Caplan & Harrison, 1982), in which job related strain is a result of the interaction between environmental variables and the individual's resources. Job stress is a result of a misfit between either the individual's opportunities and environmental resources, or between the individual's abilities and environmental demands. Empirical evidence and support for this model are mixed again (Buunk et al, 1998), possibly because the model does not distinguish between kinds of strain and their impact, e.g. whether they are long or short term.

A model that takes a more direct approach to the performance implications of stressors at work, is that of McGrath's (1976) process model which consists of four stages in a closed loop. The first stage represents situations within the work environment. These perceptions are then appraised, a response decision is then made and a response chosen. A response may change the situation and the process starts again. The model proposes that job performance will suffer when employees perceive stressors within the work environment which results in a response that detracts from performance.

Considerable research attention has focused on Karasek's (1979) demand-control model. The model has since been expanded by Johnson and Hall (1988), who incorporated social support into the model, and further developed by Karasek and Theorell (1990), and Theorell and Karasek (1996). The model is based on the assumption that those employees who experience lack of personal control are more likely to experience unfavourable work outcomes. High strain jobs are those in which there are high job demands and low decision latitude: low strain jobs are characterised by low job demands and high decision latitude.

There are many tests of this model employing varied research designs from longitudinal to experimental. Theoretical developments of the model have taken the form of investigating additional organisational and dispositional characteristics that may moderate the impact of high strain on an individual's well-being. Social support is one such moderator variable. Large population based and epidemiological studies offer strong support for the model (de Jonge & Kompier, 1997): however unresolved theoretical and methodological issues are associated with the model (Jex, 1998). Despite the model being situation-centred, there is little discussion of the issue of objective versus subjective measurement of job characteristics. There is also no consideration of the role of individual differences in the model, such as a predisposition to appraise situations in a negative way.

Recently Hart and Cooper (2001) proposed the concept of organisational health. This approach emphasises the need to focus simultaneously on employee well-being and organisation productivity and effectiveness when examining occupational stress. It considers that success in one area at the expense of the other is worthless. Citing from Wright and Cropanzano (2000), Hart and Cooper (2001:99) state "research and practice in the area of occupational stress has rarely focused simultaneously on employee well-being and organisational performance". Stress is usually conceptualised at the individual level, where as this perspective draws on both individual and organisational level inputs and therefore necessitates a multilevel approach to stress.

This thesis adopts the perspective of stress as a process, using the Michigan model as a basis for understanding the stress process, while incorporating the proposals of organisational health in study two. The following section explores a select review of the causes of stress within the workplace.

Causes of Stress

There are many sources of stress at work (Jex, 1998). A selection of key stressors which have been repeatedly investigated are reviewed. These stressors will be examined in the studies reported in this thesis to maintain consistency in the stress research approach, and enable comparisons to be made between the studies reported in this thesis and previous

empirical research. Stressors relating to role theory, role conflict, role ambiguity, and role overload are presented, followed by control, influence, feedback, job insecurity, and relationships at work.

Role Conflict, Role Ambiguity and Role Overload

The seminal work of Kahn et al., (1964), reported in "Organisational Stress; studies in role conflict and ambiguity", highlights the importance of roles in the experience of stress. Thereafter role theory has figured predominantly in research, with role related stressors being a focus in many stress research programmes. Role conflict and ambiguity tend to dominate the investigations. Role conflict may be defined as "incongruity of the expectations from a single role sender" (van Sell, Brief & Schuler, 1981:44). An employee experiencing role conflict therefore feels confused about what is expected from them. This has a negative effect on the individual, resulting in job dissatisfaction, job-related tension, and physiological strain (e.g. House & Rizzo, 1972; Miles, 1976, French & Caplan, 1970). Other dysfunctional outcomes have also been acknowledged, such as reduced organisational commitment (Baird, 1969) and poor work group relations (French & Caplan, 1972). Van Sell, Brief and Schuler, (1981) review this literature, criticising that it fails to analyse the different facets of role conflict on role specific performance (e.g. person role, intra sender, inter-sender, overload). Role ambiguity exists when an individual experiences "lack of clarity about the work objectives associated with the role, about work colleagues expectations of the work role and about the scope and responsibilities of the job" (Cooper & Marshall, 1988:85), therefore the individual is unsure of what they are required to do in order to fulfil their role. Outcomes associated with role ambiguity are increased tension, job dissatisfaction, reduced productivity and lower self confidence (e.g. Kahn et al., 1964; Caplan & Jones, 1975). Symptoms of poor physical and mental health have also been associated with role ambiguity (e.g. Margolis et al., 1974). In his meta analyses and review, Abramis (1994) found a consistently negative relationship between role ambiguity and job satisfaction, with role ambiguity explaining 9% of the variance in job satisfaction. Fisher and Gitelson (1983) found a negative relationship between role conflict and ambiguity and organisational commitment. This relationship is further supported by Hartenian et al., (1994) and Babakus et al., (1996). Role overload or work demands involve having too

much work to do, or perceiving the work to be too difficult; such demands have been associated with anxiety, frustration, and job dissatisfaction (Spector, 1987). Work underload can also lead to negative outcomes such as depression (Ganster, Fusilier & Mayes, 1986).

Control

Control is related to the individual's perceptions of their power in determining their future situation and environment. Control is more likely to be perceived when objective control is high and the locus of control is internal. The direct effects of control have been reported in both experimental studies (Miller & Norman, 1979) which show that control over aversive stimuli are positively related to performance and well-being, and epidemiological research which supports the positive association between control over work processes and employee health and well-being (Karasek & Theorell, 1990). Social support, job autonomy and participation may represent distinct means of control in the organisational environment. Daniels and Guppy (1994) report a consistent main effect of stressors upon psychological well-being, a consistent main effect of work locus of control upon psychological well-being; and a main effect of social support upon psychological well-being.

Influence

Lack of influence or little opportunity to participate in decisions which influence one's work or workplace is associated with work strain (Landbergis, 1988: Borrill et al., 1998). Miller and Norman (1979), posit that the belief in one's ability to influence the environment can reduce strain, while Karasek (1979) takes an alternative view: that through participation in decisions employees can reduce effectiveness obstacles and therefore reduce strain. Participation in decision making has been associated with fewer perceived stresses, job satisfaction. Lack of participation has been associated with depression, palliative alcohol consumption, appraisal of stressors and intention to leave (Jackson, 1983; Margolis et al., 1974; Morris, Steers & Koch, 1979; Spector, 1987). Participation in decision making appears to have positive effects on self-esteem, communication, control and social support, that may then influence levels of stress and health outcomes, productivity and job satisfaction (French et al., 1960; Kasl, 1973; French & Caplan, 1970; Buck, 1972; House & Cottington, 1986; Jackson, 1983). In addition participation can be effective in changing

worker attitudes (House & Mitchell, 1974) resulting in increased effectiveness, through the acceptance of new plans (Vroom & Yetton, 1973), and increased satisfaction (Savery & Luks, 2001), such changes are positively related to performance.

Israel, House, Schurman, Heaney and Mero (1989) examined the relationships among personal resources, social relationships, supports, participation, influence, and coping behaviours in a multivariate stress paradigm. The study takes a stress and coping theoretical perspective, examining simultaneously several psychosocial factors which may impact on the relationship between work stress and health; as "almost no studies have examined the interrelationships among participation, influence, and social support" (pg. 165-166). In addition to perceived participation and influence, satisfaction with these constructs was also measured. Satisfaction with participation and influence emerged as stronger predictors of outcome variables than the perception of participation and influence. They report "the effects of participation are mediated almost entirely through satisfaction with influence, suggesting that it is influence that results from participation, rather than participation per se which is consequential for job stress and health" (pg.185). Such an increase in participation in decision-making had a negative effect on job stress and a positive effect on influence which in turn affected emotional strain, job satisfaction, absenteeism and turnover intention.

Jackson (1983) conducted a longitudinal field study considering a causal model of the effect of participation in decision making on perceived influence, role conflict, role ambiguity, personal and job related communication, absenteeism and turnover intention. When participation in decision making increases, communication between workers and supervisors is also likely to increase. A consequence is that the workers becomes less isolated and may gain more knowledge of expectations and organisational procedures. Social support was dropped from the analysis as it was correlated too highly with perceived influence and theoretical distinctions between the two could not be demonstrated. Caplan et al., (1975) found that participation in decision making was related to the same variables as social support (role ambiguity, depression, job dissatisfaction) therefore suggesting that they may be related. The results suggested that participation in decision making is negatively related to role conflict and ambiguity: perceived influence was positively related to job satisfaction

and turnover intention; role conflict was positively related to emotional stress, and negatively related to job related communication; role ambiguity is positively related to job related communication; job related communications appear to be a consequence of role strains rather than antecedents.

Feedback

Lack of or inappropriate feedback may also be considered a cause of strain, as feedback results in knowledge about performance and reduces role ambiguity. Feedback has been found to influence job satisfaction, motivation, performance and attendance (Cordery & Wall, 1985; Hackman & Oldham, 1975).

Job Insecurity

Job insecurity is the perception that one's job is not guaranteed and that redundancy is possible. Such perceptions are associated with negative evaluations of all aspects of the company and the job (van Sell, Brief & Schuler, 1981). Dekker and Schaufeli (1995) also noted a deterioration in well-being associated with job insecurity. This supports the other empirical evidence which associates job insecurity with anxiety and depression (Ferrie, Shipley, Marmot, Stanfeld & Smith, 1998; Heaney, Israel & House, 1994; Israel, House, Schurman, Heaney, & Mero, 1989). Lim (1997) found that support from supervisors and colleagues moderated the relationship between job insecurity and negative job attitudes and behaviours associated with the stressors. These moderation effects were not found by Dekker and Schaufeli (1995): while Mak and Mueller (2000) report direct effects of social support on strain. Job insecurity can be a job specific/time specific stressor, and within certain economic climates job insecurity can become more prevalent across all jobs and industry sectors.

Relationships at Work

A key feature of almost all jobs is the necessity to interact with other people. The nature of relationships with one's manager, subordinates and colleagues at work is another potential cause of stress. It is generally accepted that positive relationships at work are a key factor in both the individual's and organisational health (Beehr, 1995). There is however little

empirical work supporting or refuting this premise. The work of Kahn et al., (1964), and French and Caplan (1970) concluded that poor relations at work were associated with role ambiguity, which in turn leads to poor communication and low job satisfaction. Relationships across the hierarchy pose differing potential threats and causes of stress, for example Cooper and Marshall (1988) introduce the idea of rivalry among colleagues.

A specific relationship which has received much empirical attention is that of the leader and subordinate, however findings are inconsistent. While several studies report a positive relationship between well-being and this relationship (e.g. Savery, 1994; Zeffane, 1994), others report no association (e.g. Savery, 1991; Hampton et al., 1986). Inconsistent findings are also reported for the relationships between leadership behaviour and job satisfaction, and leadership behaviour and performance. For example House et al., (1971) and Savery, (1994) report a positive relationship between leadership behaviour and job satisfaction, while Hampton et al., (1986) did not find evidence of such a relationship. Yousef (1998) suggests that when supervisors adopt a participative leadership style employees are more committed to their jobs, more satisfied with their jobs and their performance is high.

While relationships at work may undoubtedly be a cause of stress, some relationships or interactions may be considered health protective or stress reducing. A feature of such relationships is social support, addressed in the previous chapter.

Job Specific Stress

A limitation of the stress literature and intervention reports is that stressors and strain have been studied empirically in a range of work contexts and the findings extended to apply to work in general. It is possible that stress is job specific, thus offering an explanation for un-replicated research findings in different contexts. Sparks and Cooper (1999) considered the occupational differences in the work-strain relationship, examining the influence of seven job characteristics on mental and physical ill-health across a range of occupations. They conclude that to fully understand the work-strain relationship, research should incorporate a greater range of variables which are specific to a particular workplace. However, industry, and even organisational peculiarities mean that stressors in different companies within the same industry or parent organisation may actually be very different.

Stress: Beyond the Individual Level

Traditionally occupational stress research has focused at an individual level. This section explores the value in conceptualising stress beyond this level and the empirical work in this area. The need to move beyond the individual level and model contextual effects has been recognised by several researchers, e.g. Cox (1997) and Griffiths (1994). Bliese and Jex (1999) acknowledge that individual level theory and research has contributed invaluably to our understanding of occupational stress, but contend that incorporating a multi-level approach will increase understanding and assist organisations in their attempts to intervene in the stress process: thereby demonstrating the theoretical and practical value in adopting a multi-level perspective.

Bleise and Halverson (1996) examined and compared individual and nomothetic models of job stress. The nomothetic perspective, rooted in epidemiology, (Bleise & Halverson, ibid) examines consistencies in how groups appraise and react to their environment. In order to adopt a nomothetic perspective two conditions must be met: there must be within-group agreement (James, 1982); and differences in work climates across groups that are related to the group outcome. Investigating the relationship between well-being, cohesion and work hours, Bleise and Halverson (1996) conclude that group level models are useful in understanding the relationships between the work environment (work hours) and well-being, while cohesion and well-being relationships were best modelled using a combination of individual and group level perspectives. The correlation results suggest that the processes operating at the individual and group levels may be different (Ostroff, 1993). Bleise and Halverson (1996) conclude that the two perspectives should be viewed as complementary approaches in the study of stress and well-being, not as mutually exclusive. Practical arguments for adopting a nomothetic approach relate to efficiency. In designing interventions it is far more resource effective to address the cause of stress at group level than train individuals in the skills to cope with the stressor. Bliese and Halverson (ibid) illustrate this point, reporting that reducing the workload requirements of a group is more effective than training the individual members of the group to cope with the high work demands.

Recognising that in stressful circumstances it is not always possible or feasible to remove the stressors through individual based interventions, Bliese and Jex (1999) considered group level interventions, focusing on identifying group-level moderators of the stressor strain relationship. These moderators can be divided into group level (e.g. cohesion, collective efficacy) and individual differences (e.g. hardiness). This is similar to the view expressed by Ganster (1989) in which he suggests the identification of organisational level variables which moderate the effects of stress have greater practical implications, e.g. if identified they can be manipulated to create better work environments without focusing on reducing work demands.

Jex and Bliese (1999) studied efficacy beliefs as a moderator of the impact of work related stressors at the individual and group level. Self-efficacy at the individual level is proposed to impact on the coping strategy employed by the individual to deal with the work stressor (Leiter, 1991; Stumpf, Brief & Hartman, 1987). It may also influence their preferences for job and environment type, for example those with high self-efficacy are more likely to thrive in jobs where they experience autonomy and control compared to those with low self-efficacy (Hackman & Oldham, 1980), and may find that a role which offers minimal challenge and little scope to use their skills leads to strain (Matsui & Onglatco, 1992). At a group level, Jex and Bleise (1999) propose that efficacy functions in a different manner, contributing to a "positive interpersonal climate and greater cooperation and helping among group members" (pg. 350). This climate may then moderate the effects of stressors. "What we are arguing, in effect, is that the moderating effect of collective efficacy represents a cross-level process (Klein et al., 1994) in which a contextual or environmental factor influences individual-level relationships between stressors and strains" (pg. 350). The findings were that low levels of self-efficacy were related to high levels of psychological and physical strain, and low levels of job satisfaction and organisational commitment; while at the group level, collective efficacy was associated with average levels of psychological strain, job satisfaction and commitment. Self-efficacy moderated the relationships between: work hours and psychological strain; work overload and psychological strain; task significance and psychological strain; work overload and physical symptoms; work overload and organisational commitment. Collective efficacy moderated the relationships between:

work overload and job satisfaction; task significance and organisational commitment. The findings from the Jex and Bliese (1999) study support the premise of moderators of the stress-strain relationship functioning differently at the individual and group level.

Van Yperen and Snijders (2000) using Karasek's demand control model considered the extent to which negative health outcomes were associated with differences between work groups and with differences within work groups. The sample were Dutch bank employees working in teams. These teams are similar to the research sample used in the studies reported in this thesis, Post Office teams, as they are homogenous i.e. group members are interdependent, have the same job title and report to the same supervisor. Van Yperen and Snijders (ibid) found that perceived job demands and sense of control are partly shared by colleagues in the same group. They suggest that the work group itself cannot be considered as the dominant source of job strain and absenteeism, but, as previous work suggests, the individual's perception of the environment is the most predictive of strain (Soderfeldt et al., 1997; Fox et al., 1993). From the results, they ascertain that aspects of work characteristics should be "conceptualised as having both group- and individual-level foundations" (pg. 182), further demonstrating the value of, and supporting a move beyond, the study of stress at the individual level. It is important to note caution when generalising from this study as only 31 teams participated in the study.

Additional support for expanding the levels in stress research is provided by de Jonge et al., (1999) who suggest that individual level research should be supplemented by considering aggregated level effects. When comparing group and individual level assessments of job characteristics in testing the Job-Demand-Control model they found both levels of assessments of job characteristics important in predicting employee health. Also in support of this Ganster and Murphy (2000) recognise that there is little research focusing on the how the negative effects of stress can be reduced by altering elements of the experience of work at the group level, yet academics within this field are in agreement that stress and interventions to reduce the effects of stress should take into account the collective environment.

Conclusion

Stress and the repercussions of a stressed workforce is a major problem for organisations. The stress process is represented using models which imply a misfit between the cause of stress and the individual's perceived ability to manage it. While the causes of stress at work are many, several key stressors are repeatedly investigated: these are control, feedback, influence, job security and role related stressors. These causes of stress will be examined in this thesis to maintain consistency in the stress research approach, thus increasing reliability and enabling comparisons to be made across studies. The context specific nature of stressors was also raised during the discussion on work stressors.

Recently stress research, while recognising the value of individual level enquiry, has proposed that there is greater potential for understanding stress if it is considered beyond this level by modelling the contextual effects of stress. The approach offers additional insight into the stressor - strain relationship, while recognising the importance of the individual level research. The two approaches should be considered complementary. This thesis addresses stress at both the individual and group level.

Viswesvaren et al., (1999) suggested that research refining theoretical models, considering how different sources of support can be matched to particular stressors and strains would develop understanding of social support. Peeters and Le Blanc (2001) criticise much of the empirical studies for failing to present explicit hypotheses as to the differential effects of the sources of support on stressors. They point out that this is curious as the original match hypothesis of Cohen and Wills (1985) refers to the match between types of stressor and types of support, and it could therefore easily be extended to the match between types of stressors and sources of support. In other words if an individual gets what they want and / or from whom they want it; social support will have the most beneficial effect. By doing so Peeters and Le Blanc (2001) extend Cutrona and Russell's (1990) theory of optimal matching which states that certain forms of social support are most beneficial following specific kinds of stress. The detailed study of social support carried out in this thesis therefore addresses these points, allowing for specific social support sources and types, and their associations with specific work stressors, to be explored.

This chapter and the previous one have discussed the impact of social support and stress on psychological and behavioural outcomes, the following chapter will address the impact of social support and stress on these outcomes in greater detail.

Chapter 4

Outcomes

Chapter Overview

The previous two chapters have dealt with the first two apexes of the Michigan Model, focusing on social support and stressors within the work place. The impact of stress and social support has been outlined. This chapter will address the third apex, the outcomes of social support and stress; well-being, job satisfaction, organisational commitment and performance will be reviewed.

The Impact of Stress and Social Support

Responses to stress and social support may be distinguished as: physiological, psychological and behavioural. Within occupational research the latter two have been investigated most frequently. Physiological responses to stress include measures of heart rate, blood pressure and levels of various chemicals (e.g. cortisol). Psychological responses to stress have received the most attention from occupational psychologists. The most widely studied outcomes are well-being, job (dis)satisfaction, strain and health. Other outcomes include commitment, turnover, burnout, depression and anxiety. Behavioural responses to stress e.g. job performance, use of palliatives, forms of work avoidance and counterproductive acts such as industrial sabotage, have received less attention than psychological responses.

This section briefly reviews the literature on three psychological responses: well-being, job satisfaction, and organisational commitment; and one behavioural response, performance. The relationship between the experience of stress, social support and these responses is then discussed.

Well-being

Occupational stress is recognised as an antecedent to poor well-being. House and Rizzo (1972) report that role conflict leads to tension and physiological strain. Symptoms of mental and physical illness have also been associated with role ambiguity (Margolis et al., 1974), while role overload can lead to depression (Ganster, Fusilier & Mayes, 1986). Lack

of influence is also associated with a range of negative outcomes, such as job dissatisfaction, and depression (Jackson, 1983; Margolis et al., 1974; Morris et al., 1979). It is therefore generally accepted that organisational stress leads to a wide range of physical and mental illnesses for the individual (Blythe, 1975; Savery & Hall, 1985). A relationship between occupational stress, social support and well-being has long been established (e.g. Miller et al., 1990), although the mechanisms are still debated.

The emotional and tangible aspects of social support are "very important influences on health outcomes" (Berkman, 2000:9). Schafer, Coyne and Lazarus (1981) also found informational support as well as emotional and tangible support were related to well-being. Within the work place, Schenk, Kiniki and Davy (1997) report that different types of social support (instrumental and emotional) differentially influence stress components. Both types of social support directly influenced the perception of the negative stressor, offering partial support for the proposed relation between social support and subjective well-being, in that instrumental support positively influenced this stress outcome. Partial support was also found for a mediated relationship between social support and subjective well-being, instrumental social support positively influenced the stress outcome. However, social support is not the panacea for well-being. Empirical evidence suggests that receiving too much instrumental support may result in a negative outcomes, such as reducing the recipients self-esteem (Sarason, Sarason & Pierce, 1990) or causing the recipient to experience guilt and dependency as a result of the support (Lu & Argyle, 1992).

Job Satisfaction

Bedeian and Arkmenakis (1981) reported negative correlations between role conflict, role ambiguity and job satisfaction. This is further supported by Fisher and Gitelson (1983) who report role conflict was negatively related to several facets of job satisfaction such as pay, co-workers and supervision, while role ambiguity was negatively related to aspects of promotion and co-worker relations. Abdalla (1991), Jamal (1997), Gregson and Wendell (1994) all found a negative relationship between role conflict and role ambiguity and job satisfaction. Sullivan and Bhagat (1992) observed that most research examining the relationship between stress and job satisfaction has been correlational in design using role

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ambiguity and role conflict as types of stress. More recently sophisticated techniques such as LISREL and path analysis have been employed to examine the data. Kemery et al., (1987) report the direct influence of role conflict and ambiguity on job satisfaction and physical symptoms, which in turn influenced turnover intentions. Hendrix et al., (1985) report results of a path analysis indicating that job satisfaction was affected by factors such as involvement in decision making, skill variety and whether task type could be influenced by supervisor mood. They suggest that differences in findings across studies could be attributed to the diversity of jobs studied, and differences in stress levels experienced. The variation in measures employed could explain conflicting findings. Drory and Shamir (1988) considered the impact of intra-organisational factors, extra-organisational factors, and task characteristics on job satisfaction. Task characteristics accounted for 4.35% of explained variance in job satisfaction and organisational variables for 3.4% of explained variance in job satisfaction, illustrating the slightly greater role of task characteristics in effecting job satisfaction. They also noted that stress outside the organisation can also contribute to job dissatisfaction.

Despite the bleak picture painted by the effect of stressors on job satisfaction, empirical studies indicate that supportive relationships at work enhance job satisfaction (Boumans & Landerweed, 1992; Parkes et al, 1994; Peeters, 1994). Zander and Quinn (1962) in their seminal review of the social environment and mental health, found the following to be antecedents of job satisfaction in industrial settings: when a leader pays personal attention to his subordinates, "understands his employees as human beings" (pg. 52), (Mann & Pelz, 1948; & Pelz, 1951 as cited in Zander & Quinn, 1962); when clear instructions are provided (Cohen, 1959); when a worker feels that his peers or supervisor will support his decisions or his complaints (Mann & Pelz, 1948; & Pelz, 1951 as cited in Zander & Quinn, 1962); when a worker has some share in the process of making decisions that will influence his work, or when he has freedom or autonomy on the job (Morse, 1953; Pelz, 1951; Morse & Reimer, 1956; Vroom, 1959; & Trow, 1955 as cited in Zander & Quinn, 1962). Aspects of social support from supervisor and colleagues reveal themselves in these findings.

There is strong empirical evidence for a positive relationship between social support from supervisors and job satisfaction (Cummins, 1989; Ganster, Fusilier & Mayes, 1986; LaRocco & Jones, 1978). Savery (1988:29) reports that "the majority of sources and types of support were useful in helping to raise the job satisfaction of an individual". Ducharme and Martin (2000) note in their review of the literature, citing Bennett and Lehman (1999) as an exception, that there has been little attention given to "the potential impact of co-worker relations in mitigating against job dissatisfaction and other undesirable outcomes" (pg. 225). Ducharme and Martin (2000) consider both instrumental and affective support from co-workers and supervisors. Unfortunately the research uses a purpose developed, study specific measure of social support, of which there is no description of how items were created or where they were derived. Instrumental support emerged as "marginally more beneficial to the satisfaction of full time employees". When the two forms of support were included in the regression model simultaneously each exerted independent direct effects on job satisfaction. "Affective and instrumental support have parallel effects on job satisfaction but they complement rather than substitute for one another" (pg. 11).

De Jonge and Schaufeli (1998) report a positive association between social support and job satisfaction, supporting the longitudinal findings of Parkes (1982) who found that improvements in support were positively associated with changes in job satisfaction. However, they also found that very high levels of support had a negative effect on job satisfaction. This supports the "stress-transfer" hypothesis of Karasek, Triantis and Chaudhry (1982) which suggests that in groups in which there is high cohesion, less strained individuals take on or adopt some of the stress from the high strained workers, thus creating an equilibrium of strain among the group members. De Jonge et al's., (2001) longitudinal study on the relationships between job characteristics and well-being, found that job demands and workplace support appear to be causally dominant factors with regard to job satisfaction.

Organisational Commitment

Organisational commitment, although having received less attention in the stress and social support literature than the outcomes discussed above, is still of key importance (Bateman &

Strasser, 1984) due to the relationship between commitment and employee behaviours which affect the organisation's "bottom line" such as turnover (Price & Mueller, 1981) and enhanced productivity (Leiter & Maslach, 1988). Employees experiencing greater autonomy and responsibility report greater organisational commitment (Koch & Steers, 1978). This relationship is also replicated for greater job variety and task identity (Steers, 1977): while the experience of role stressors, conflict and ambiguity, have a negative effect on employee organisational commitment (Morris & Koch, 1979; Morris & Sherman, 1981).

Scandura and Lankau (1993), as cited in Carlson and Perrewe (1999) report a positive relationship between organisational commitment and perceived organisational support. This relationship is further supported by Eisenberger, Huntington, Hutchison and Sowa (1986), Rhoades, Eisenberger and Armeli (2001) and Eisenberger, Armeli, Rexwinkel, Lych and Rhoades (2001). Furthermore, interpersonal relations within the work environment influence organisational commitment as found by Leiter and Maslach (1988) who report that "supportive contact with co-workers" (pg. 307) has a positive effect on organisational commitment, while negative interactions with a supervisor experienced on a regular basis may lead to a reduction in organisational commitment.

Job Performance

The impact of stressors on job performance may be either direct or indirect. Peters and O'Conner (1980) found situational constraints to have a very direct negative effect on performance. However, it is also possible that the situational constraints cause frustration, which then serve to inhibit performance (Jex, 1998), therefore illustrating indirect effects. The indirect mechanism therefore proposes that stressors effect the antecedents of performance, which subsequently impact negatively on performance. Specific stressors may also impact on performance in different ways and to different magnitudes. Jamal (1984) found that high levels of role overload were associated with a decrease in both performance quality and quantity, while Tubre et al., (1996) report that role ambiguity is more strongly and negatively associated with performance than role conflict. Beehr et al., (1990) are less positive about the relationship between stressors and performance stating that past studies examining stressors and job performance have yielded inconsistent and weak relations.

They provide the following examples: Motowidlow et al., (1986), Spector et al., (1988), and Jackson and Schuler (1985).

Studies detailing the relationship between interpersonal relationships and performance provide inconsistent results. Yet, intuitively there is a link between social support and well-being and well-being and performance, therefore suggesting a link between social support and performance. Interpersonal relationships at work are also suggested to impact on performance. Potter and Fielder (1981) report that when stress with the supervisor was high, performance was consistently low: similar results were not reported for the effects of job stress. Job stress was less important than stress with a supervisor in determining the extent to which one's intelligence and experience were employed in enhancing performance. These findings thus suggest that different types of interpersonal stressors affect intellectual performance in different ways. However, Beehr et al., (1990) while reporting correlations between some types of support and performance, found that on using more advanced techniques the regressions were insignificant. Rosenfeld, Richman and Bowen (1998) report a relationship between social support types and school performance: emotional support and emotional challenge were associated with greater self-efficacy; technical challenge was associated with attendance; task appreciation and practical assistance associated with greater time studying; and reality check predicted better grades. Beehr, Jex, Stacy and Murray (2000) examined job stressors and co-worker social support as predictors of psychological strains and performance in door-to door bookdealers: social support reduced strain, but was only weakly related to performance; job stressors did predict performance. However, a mediated relationship was not tested in which the reduction of stressors caused by the support led to better performance, so the possibility of this relational mechanism cannot be rejected . Slack et al. (2002) report that enacted supervisor support is related to employee performance. They also considered perceived support, which was related to enacted support but not directly to performance, thus suggesting active support in terms of resources and behaviour from the supervisor are required to elicit positive performance. Burningham and West (1995) and Ramus and Steger (2000) both found that supervisor support was positively related to creative behaviour, which may lead to innovation, and be associated with higher levels of participative safety, the opportunity to participate, and perceptions of influence.

Within a team context, Hyatt and Ruddy (1997) investigated the relationship between work group characteristics, and subjective and objective measures of team performance, creating a Group Development Profile to assess the various aspects of work group characteristics. One factor within the profile was work group support, defined by the extent to which work group members receive encouragement, feedback, coaching, and assistance from their manager, and resources and training. Work group support was related to work team performance. This confirms the importance of manager support in providing direction, data, information, resources and training for the team and in developing internal performance standards. This general pattern of results supports the work of Hackman (1987), and Shea and Guzzo (1987).

Employing the demand-control-support model (Johnson & Hall, 1988), Schaubroeck and Fink (1998) explored the relationships between control, support and performance. Job control is positively related to performance (Greenberger et al., 1989). Support was conceptualised as co–worker support and supervisor consideration. Yukl (1994) in his book on leadership in organisations proposes, "supporting is the core component of consideration" (pg. 118). There is strong support for a positive relationship between supervisor consideration and subordinate performance (Farris & Lim, 1969; Greene, 1975; Lowin & Craig, 1968). Schaubroeck and Fink (1998) report that supervisor consideration predicted performance when control was low, not in high control jobs, and co-worker support did not influence performance in high control jobs, suggesting that support only enhances performance in low control situations. The relationship between social support and performance may also be indirect, social support has a positive impact on morale (Firth, McIntee, McKeown & Britton, 1985) and therefore motivation may be the mechanism through which social support effects performance.

Relationships Between Outcome Variables

There is a very active empirical and theoretical debate on the causal relationships between the outcomes discussed. This debate centres on causal directions and the relative effect sizes. The following illustrates the inter-relationships between the variables to justify their simultaneous measurement.

Recently the relationship between well-being and performance has come to the fore. This is a logical progression since poor psychological well-being has been linked to depression, reduced self-esteem, and the use of palliatives (Ivancevich & Matteson, 1980), variables which in turn have been linked to declines in work outcomes (Quick et al., 1997). Health and well-being vary considerably in their meanings and definitions, reflecting the broad and varied approaches to this concept (Danna & Griffin, 1999). Health and well-being may relate to the physical, mental, emotional and psychological aspects of an individual. Warr (1996: 224) defines the study of well-being as examining "people's feelings about themselves and the settings in which they live and work". Whichever perspective is adopted the concept is one of importance as awareness develops the aspects of the workplace which may adversely affect the worker. Poor health and well-being not only impact on the individual, but also have negative consequences for the organisation, ranging from lower quality decision making, to a reduction in productivity and absenteeism (Boyd, 1997).

Direct evidence for the relationship between well-being and performance is provided by Wright and colleagues (1993; 1997). Wright, Bonett and Sweeny (1993) reported a positive relationship between well-being and supervisor ratings of performance; and later Wright and Bonett (1997) found a significant relationship between well-being and performance. These findings are supported by Diener et al., (1999) and Judge and Locke (1993) who also report evidence of a relationship between well-being and performance. However, it is very difficult to determine the causal direction of the relationship between well-being and performance without extensive longitudinal data. Anderson (1976) suggests an inverted U shape curve for the relationship between performance and tension, whereby manageable tension leads to high performance, but both high and low tension result in lower performance. Within the organisational research arena well-being may be extended to include aspects of work experiences such as job satisfaction or specific dimensions such as satisfaction with pay (Danna & Griffin, 1999). Wright and Cropanzano (2000) considered the comparative predictive power of well-being and job satisfaction on performance. Job satisfaction measures are tied to the context of work, while most well-being measures are context free. Their research suggests that well-being was more predictive of performance beyond that

predicted by job satisfaction. Discussing this finding in the context of the happy worker hypothesis, it is proposed that well-being is a better indicator of happiness than overall job satisfaction and thus is a better predictor of performance. The study is based however on a modest sample size and various sources of potential bias exist based on affect arguments, yet they argue that regardless, employee well-being "remains valuable" in its own right.

Job satisfaction and its relationship to performance has also been well considered within the occupational psychology literature (Ostroff, 1992; Petty, McGee & Cavender,1984). There have been many comprehensive reviews of this relationship (e.g. Iaffaldano & Muchinsky, 1985). Although difficult to determine the causality between job satisfaction and performance, the two are related. However, there is little agreement as to the extent of this relationship (Iaffaldano & Muchinsky, 1985; Judge, Thoresen, Bono & Patton, 2001). Beyond job performance, job satisfaction is also associated with well-being, and organisational commitment (Birnbaum & Somers, 1993; Igbaria, 1991; Meyer et al., 1989). Baugh and Roberts (1994) and later Ward and Davies (1995) also report positive relationships between organisational commitment and performance.

Conclusion

The previous chapters have examined the origins of social support and clarified the theoretical and measurement issues associated with support research. The positive role social support plays in the reduction of the experience of stress and associated positive outcomes has been explored. Clarity and specificity emerge as key issues from the limitations of previous research on social support.

The work related outcomes of well-being, job satisfaction, organisational commitment and performance have been discussed. If these outcomes are not present or lacking there are potential negative implications for the organisation which may ultimately impact on the viability of the organisation. The negative effect of stress and the positive impact of social support on these outcomes has been discussed. Well-being, job satisfaction, organisational commitment and performance have also been reviewed in relation to each other. The debate as to the causal relationships between these variables is ongoing and equivocal.

The literature review thus far has addressed the three apexes of the Michigan Model. The following chapter reviews the literature on team working, the context in which the study of social support is investigated in this thesis.

Chapter 5
Team Working

Chapter Overview

This chapter introduces the concept of team working and offers an explanation as to why this form of working has become prevalent within organisations. Team effectiveness is briefly considered and the psychological benefits beyond effectiveness explored.

The literature on teams and team effectiveness theory is extensive. However, as the focus of the research reported in this thesis is social support, the aim of the following review is to provided an aid to understanding the context in which social support will be considered, and to identify factors within the team which may account for psychological benefits of team working.

Team Working

The practice of team working has increased in popularity across all types of organisations (Guzzo & Shea, 1992). A primary function of the work team is to provide structure, enabling the co-ordination of many individuals whereby they are better able to achieve set objectives. This is becoming increasingly important as organisations increase in both size and complexity (West et al., 1998). Team will be defined followed by reasons for their almost universal adoption.

What is a Team?

McGrath (1984) refers to the term group as a "fuzzy" concept, as there are no clear cut boundaries between groups and non groups. He does however suggest that groups are psychologically and sociologically distinct from random aggregates of individuals as they involve mutual awareness and mutual interaction. Cartwright and Zander (1968: 46) elaborate further stating that group members have "relationships to one another that make them interdependent to some significant degree". Guzzo and Shea (1992) refer to degrees of "groupness", suggesting that some groups, such as project teams display many group characteristics, while other groups such as audiences show fewer.

Within organisations two types of group are evident: formal and informal (social). Formal groups are created strategically by the organisation, and have set targets and objectives. They have a structure and are task orientated. Examples of such groups include project teams, quality circles and sales teams. Informal groups differ in that they emerge and serve the social needs of the group members; for example a group that meet to play sport (Illgen et al., 1993). Individuals may belong to more than one formal and/or informal group within an organisation. The proceeding team review focuses on formal groups in the workplace as it is these work units that management can control and influence, thus impacting on group member's experience of work beyond the experience controlled by the individual themself.

The notion of formal and informal groups differentiates group type at one level, yet to gain a further understanding of the characteristics of work teams requires integration of the empirical literature. Hackman (1990:4) proposes that "real groups...intact social systems with boundaries, interdependence among members, and differentiated member roles ...members are dependent on one another for some shared purpose ...they have one or more tasks to perform...The group produces some outcome for which they have collective responsibility.... an outcome that can be identified as its product ...They operate in an organisational context...the group, as a collective manages relations with other individuals or groups in the larger social system." Thus the key defining characteristics of a work team are 1) their position in an organisation as a recognised unit 2) team member interdependence and the necessity to work together to achieve the team purpose 3) the production of a measurable output 4) for which all members are accountable. Other operational definitions may be contingent on the team context, for example shared physical work location (Fry & Slocum, 1984; police teams); team tenure (Anacona & Caldwell 1992; project groups); team size (David, Pearce & Randolph 1989; management teams). The definition of work team that will be adopted for this thesis is proposed by Morhman, Cohen and Morhman (1995: 39-40): a team is "a group of individuals who work together to produce products or deliver services for which they are held mutually accountable. Team members share goals and are mutually held accountable for meeting them, they are interdependent in their accomplishment, and they affect the results through their interactions with one another.

Because the team is held mutually accountable, the work of integrating with one another is included among the responsibilities of each member". The term group and team will not be used interchangeably, as is often done in team reviews (see Hackman, 1987). The term quasi team will be used to denote teams which fulfil many of the defining characterisers of a team, but do not fulfil all of them.

Why Work in a Team?

In the introduction to this section it was suggested that the team is used in organisations as a means to simplify the organisation structure as corporations grow in size and complexity. Mohrman et al., (1995) also note that team based working enables organisations to adapt to changes in their competitive environment and the prevailing economic climate. The benefits of team based working have been extensively communicated. Applebaum and Batt (1994) reviewed 12 large-scale surveys and 185 case studies, concluding that team working results in improved organisational performance in terms of both efficiency and quality (West et al., 1998). This is illustrated by Wellins, Byham and Dixon, (1994:1) who boast the following multinational achievements, accomplished through teamwork: At

- "K Shoes, Ltd, rejects have dropped from 5000 parts per million to 250." UK
- "Cycle times for many products have been reduced from 12 weeks to less than 2 weeks at Westinghouse's electronic assembly plant in Texas." US
- "at Bord Na Mona, a unique peat harvesting operation in Ireland, output per employee have risen by nearly 100%".

The increase in team-based activities is intended to improve the organisation's productivity, quality, customer service and eventually impact positively on the bottom line (Guzzo & Salas, 1995). This is rooted in the general belief that the combined efforts of the individuals within a team will surpass that of the aggregate of the individual contributions (West, 1994). However, there is evidence to the contrary. A reduction in the performance of individuals within the group is termed "process losses" (Steiner, 1972). Process losses are accounted for by several phenomena, including: social loafing (Latene, Williams & Harkins, 1979); groupthink (Janis, 1982); production blocking (Diehl & Stroebe, 1987); social conformity (Moscovici & Doise, 1994); and diffusion of responsibility (Darley & Latene, 1968). Also,

teams may not always be the most effective resolution to a problem (Shaw, 1981); for example, when a problem requires specialist knowledge, an individual possessing the knowledge will be better suited to solving the problem than a team who do not have that, knowledge regardless of the goals set.

In addition to performance advantages of team working, studies also suggest positive mental health and well-being outcomes for those individuals who work in teams (e.g. Moch, 1980; Greller, Parsons & Michell, 1992; Rau, 1994). A recent programme of research conducted within the NHS (Borrill & West, 1997; Borrill & West, 1998; Carter & West, 1999) has explored the differences in employee well-being for those who work in clearly defined teams as opposed to less clearly defined work structures. Findings from this research suggest that people who work in teams experience better well-being than those who do not work in teams. Being clear about the responsibilities and requirements of the role and social support from peers was found to mediate the relationship between team working and well-being (Carter, 2000). Furthermore, working in a well functioning team was associated with better well-being. Several key processes were identified as attributing to group functioning and subsequently well-being (Carter, ibid).

Understanding teams and thus tapping their potential are paramount to organisational success. Companies recognise this, as illustrated by the Perrin/IBM study of 3000 managers and executives from 12 different countries, which reported that teamwork was rated among the highest business priority for the year 2000 (Tannenbaum, Salas & Cannon-Bowers, 1996). To enable teams to fulfil their maximum potential it is necessary to gain an understanding of the factors which influence their performance and also the psychological impacts of team working, as these associated benefits may be more pervasive in the long term. The following sections provide a brief overview of team effectiveness theory and consider factors contributing to the psychological benefits of team working.

Team Effectiveness Theory

Historically, there has been a shift in the study of team effectiveness from a social psychological outlook to an organisational/industrial psychology perspective. Emphasis on

the social interaction processes within a group (e.g. Lewin, 1947, and the National Training laboratory (NTL)) has given way towards accentuating contextual influences on effectiveness (e.g. Sundstrom et al., 1990). However, processes within the team remain a focal element of more recent approaches.

The Input-Process-Output model (IPO) is the predominant template for the development of team effectiveness theory and research (Guzzo & Shea, 1992). The IPO model consists of three sections, involving linear causal relationships between each facet. Outputs are regarded as a consequence of group interaction, the most frequently assessed output is performance. Processes pertain to the interaction among the team members, for example the social exchange of information; which are a result of the inputs. Inputs are regarded as that which the team members bring to the group, this includes individual skills, ability, experience etc., and also the organisational context, such as resources.

Figure 5.01 Hackman (1988): Summary of McGrath's (1964) IPO Model

Input   **Process**   **Output**

| **Individual-Level Factors** |
| Pattern of member skills
Member attitudes
Member personality
characteristics |

| **Group-Level Factors** |
| Group structure
Level of 'cohesiveness'
Group size |

| **Environment-Level Factors** |
| Group task characteristics
Reward structure
Level of environmental stress |

Group Interaction Process

| **Performance Outcomes** |
| Performance quality
Speed to solution
Number of errors |

| **Other Outcomes** |
| Member satisfaction
Group 'cohesiveness'
Attitude change
Sociometric structure |

There are a plethora of models developed from the IPO model, and while each makes a unique proposition, Tannenbaum, Salas and Cannon-Bowers (1996) recognise that a moderate degree of commonality exists between them. The input, process, output process was originally proposed by McGrath (1964), and later developed by Hackman and Morris (1975). The following was proposed; three categories of input: group composition, norms and task design. Processes related to performance are: use of team member skill, team member effort and the use of appropriate task performance strategies. The relationship between processes and outcome is not viewed as simply causal rather the relationship depends on "critical task contingencies" (Guzzo & Shea 1992:293). In practical terms this means that the role of the task is two-fold. It may either be considered the initiating factor in the causal chain, leading to performance or as a moderator of the relationship between team interaction and performance. The emphasis on the task relates to the socio-technical perspective. The role of task was elaborated in subsequent models, such as that proposed by Hackman and Oldham (1980).

As the IPO model has developed, focus and emphasis has moved from one facet of the model to another, with different aspects brought to the fore: e.g. from a focus on task design and organisational context (Hackman & Oldham, 1980; Hackman, 1987); to greater detail of inputs (Gladstein, 1984); to appreciation of the importance of studying groups in context and the notion of negative and positive synergy (Hackman, 1987). The relationship between team characteristics and effectiveness is strongest for process characteristics (Campion, Papper & Medsker, 1996).

Performance Issues and Methodological Shortcomings of the IPO model

The IPO models and associated studies are designed to answer one question: which factors enhance the performance of teams, and ultimately the profitability and viability of the corporation? As performance is often equated unilaterally to productivity, research on group effectiveness has been predominantly concerned with issues of productivity (e.g. Hackman & Morris, 1975; Gladstein, 1984; Guzzo & Shea, 1992). There is therefore a paucity of empirical work addressing group member well-being relative to effectiveness (Sonnentag, 1996). Hackman (1987) recognised that the criteria of performance in real settings is

complex and proposed the following three components: team performance, perceived viability to continue in the future and team-member satisfaction, this is very similar to the three components to team effectiveness proposed later by West, Borrill and Unsworth (1998): the team's success in achieving its purpose or objectives; the viability of the team; and the mental health of team members. However, it could be argued that the viability component might misrepresent team effectiveness as very few teams have the choice to remain together or to separate. Such decisions are made in the upper echelons of the organisation and filtered down, therefore possibly not representing decisions based on team effectiveness but rather economic pressures, project commitments, and internal politics. An alternative set of variables relating to effectiveness are proposed by Guzzo and Dickson (1996): design (autonomy, interdependence); process (helping behaviour, co-operation); and contextual (adequate resources). Cohen and Bailey (1997) adopt a broad approach to effectiveness including the multiplicity of outcomes that matter in organisational settings. These outcomes may be at several levels, e.g. the individual, group, business unit, or organisation. Effectiveness at one level has the potential to impact on effectiveness at another level. Thus, clarity regarding the dimensions of effectiveness and the level at which they are being considered is necessary. Effectiveness is categorised into three dimensions in relation to the team's impact on 1) Performance effectiveness (which is assessed in terms of the quality and quantity of the output, through various measures of efficiency, productivity, innovation, customer satisfaction). 2) Team member attitudes (including aspects of employee satisfaction, commitment, and trust in management). 3) Behavioural outcomes (including absenteeism, turnover, safety). While Cohen and Bailey (ibid) criticise Guzzo and Dickson (1996); Sundstrom et al., (1990) and Hackman (1987) for not considering behavioural outcomes, they in turn may be faulted for not considering aspects of team member mental health or aspects of well-being.

A fundamental problem with the effectiveness and team literature is the inconsistency with which outputs are measured and how these are assessed e.g. self-report, manager report, company records. In addition to this criticism there is also little parsimony in the specific variables proposed to influence effectiveness. This may be a consequence of attempting to produce a generalised model of team effectiveness, which applies across diverse work

groups. For example, Sundstrom et al., (1990) consider 17 variables in their model and Gladstein (1984) over 20. This results in an over inclusiveness of the models making them challenging to support empirically. Attempting to generalise across teams is not without limitations. There are many different types of teams, operating in a variety of work contexts and settings therefore replicated studies yield inconclusive results. Another difficulty when assessing empirical support for the theory is the approach taken to conceptualise the variables. Different research uses different levels of conceptualisation and, adding to this confounding factor, the variables proposed are often broad and therefore open to interpretation. For example McGrath (1984) uses the term "individual factors", this could be interpreted as personality, skills or attitudes to the work. Considering these shortcomings making comparisons across the models and interpreting consistency in the findings is therefore difficult.

Several authors (West 1996; Cohen & Bailey, 1997) agree that the way to move understanding of team effectiveness forward is to increase specificity of the models. In their review of the literature Cohen and Bailey (1997) discuss findings from team research in terms of four team types: work teams, parallel teams, project teams and management teams. Work teams are defined by their relatively stable membership and continuing responsibility for their task (Cohen, 1991), project teams are time limited and are responsible for producing a finite output (Mankin, Cohen & Bikson, 1996). Parallel teams consist of members from multiple disciplines, who by their heterogeneity are better equipped to perform a task than a single unit within the organisation, e.g. problem solving and improvement focused projects (Ledford, Lawler & Mohrman, 1988); while management teams provide direction and coordinate sub-units within their domain of power (Morhman et al., 1995). Thus, Cohen and colleagues illustrate recognition of the need for specification in team research and that teams differ depending on their purpose.

Psychological Benefits of Team Work

The team review thus far has focused on issues of productivity and effectiveness in relation to team performance. Research evidence suggests diverse benefits of teamwork, both from the perspective of the organisation and the individual. This section considers the potential

positive outcomes of team working, such as well-being, and focuses on factors which influence the psychological benefits of team work.

Sonnentag (1996) makes several suggestions for the lack of integration between work group factors and well-being: the difference in research traditions is proposed; also issues of analysis level. Team research is primarily conducted at the group level, as an aggregation of individual scores, while well-being research is nearly always carried out at the individual level. "Considering both work group factors and individual well-being in one line of research may cause conceptual and methodological problems" (pg. 346). Such methodological challenges have been addressed with the rise of multi-level modelling. Levels of analysis issues are addressed in chapter six.

Research carried out with teams in context suggests that a person's behaviour and feelings change when working as part of a team as opposed to working individually. An explanation for this phenomenon may be traced back to the basic human need to belong to a group unit: living and working together in groups is an integral part of our lives (West, 1996); groups are the basic building blocks of our society, and "are and always will be essential to human life" (Forsyth, 1999:2). There are several theoretical propositions offering alternative explanations as to why, as individuals, we are drawn to others to form groups. Freud suggested that the desire of individuals to belong to a group is rooted in an attempt to recapture the sense of security experienced when being nurtured by an adult and through the stable relationships formed with others throughout development (Lee & Robins, 1995). Maslow (1968) addressed this drive in the middle section of his hierarchy of needs, suggesting that once the basic needs of food and safety are satisfied, an individual turns their effort to meeting the needs for love and belongingness. Bowlby's attachment theory (1969, 1973) also incorporates the need for relationship formation and maintenance. Belongingness theory (Baumeister & Leary, 1995) proposes that when belonging is experienced there are positive outcomes for the individual's well-being, happiness and personal adjustment (e.g. McAdams & Bryant, 1987). Adversely, the consequences of failure to belong are associated with psychological and somatic health complaints (Delongis, Folkman & Lazarus, 1988), depression and anxiety (Argyle, 1987; Myers, 1992) and even mortality (Lynch, 1979). An

alternative explanation is provided by social identity theory and social categorisation (Tajfel, 1972, 1979; Turner, 1981, 1982, 1985), which suggests that social identity is associated with positive self-concept and self esteem (e.g. Van Knippenberg, 1984; Zander, Stotland & Wolfe, 1960).

Evidence of the above can be seen within the context of work, for example, Trist and Bamforth (1951) reported an increase in psychosomatic complaints and other disorders when a group of miners where disbanded and required to work individually. Hackman (1992) suggests that if stimuli provided by a group fit an individual's needs that this will contribute directly to their satisfaction. Working within a group provides opportunity for social interaction and fulfils the fundamental human need to belong (Baumeister & Leary, 1995). Individual motivation is also affected by working with others, resulting in greater internal motivation than working in isolation (Moch, 1982). Greller, Parsons and Mitchell (1992) report that for police employees the perception of team working was associated with well-being. Further links between team working and well-being are proffered by Rau (1994) who suggests stress-compensation effects of teamwork.

Management can directly influence some aspects of work group design, whereas process variables require indirect influence through encouragement, facilitation and reinforcement (Campion, Medsker & Higgs, 1993). In teams, well-being related outcomes and their antecedents may be considered in terms of the IPO model described previously. These factors will be discussed in relation to the stage in the IPO model and in relation to well-being related outcomes.

Inputs

Group Composition.

According to the IPO model the composition of the group, the size, member's skills and attributes etc., will influence the outcomes of the group. In terms of well-being, the results are equivocal. While some research suggests that the size of the team is directly related to well-being (Campion, Medsker & Higgs, 1993), other studies suggest this is a mediated relationship, whereby the size of the team impacts on the intragroup processes, such as

communication, therefore smaller teams experience better interaction and therefore higher levels of well-being (Gladstein 1984). Bennett and Lehman (1999) considered the moderating effect of work team membership on the relationship between employee exposure to co-worker substance use and negative consequences. They conclude that while group composition did play a determining role, individual differences were most significantly related to substance use. However, they did not compare different types of work team based on the defining characteristics of team, rather on the work characteristics of the team. In addition, team membership was decided on by the organisation: the people working within the groups were not consulted as to who belonged to each group. This may therefore misrepresent real team membership as perceived by employees within the teams (Borrill et al., 2000).

The results from studies considering homogeneity verses heterogeneity of the group are also unclear. Homogeneity is associated with cohesion (Terborg, Castore & De Ninno, 1976), and cohesion associated with team member satisfaction (Lott & Lott, 1965), therefore cohesion may act as a mediator of homogeneity and well-being. However Watson, Kumar and Michaelsen (1993) suggest that that initial benefits of homogeneity, such as better intragroup processes, are only evident in the early stages of the team's development. An alternative proposition is that the team member's attitudes towards team working may be related to his/her well-being. Campion, Medsker and Higgs (1993) report a correlation between preference for team work and group satisfaction, this is contrary to findings of Stevens, Diedericks and Philipsen (1992) who did not find such a relationship. Similar to attitude is affective tone, whereby an individual's disposition can influence that of others around them and can result in the affective tone of the team. Individual level attributes, such as emotional stability and adjustment can impact on team effectiveness, cohesion and team motivation (Shaw, 1976). George (1990) reports that affective tone is related to prosocial behaviour (some dimensions of which are similar to social support, e.g. "helping co-workers", (George & Brief, 1992) which leads to increased effectiveness (Conway, 1999).

Consistent with the attitude rationale, Driskell et al., (1999) propose that a team perspective is required for effective team behaviour to take place. The premise for the study draws on

social identity theory and the need to belong. Mead (1934) suggested that it is only to the extent that individuals develop a group concept that co-operative activity becomes possible. Team perspective is "a perception of interrelations of actors and actions in a group system" (pg. 293). Team perspective is conceptualised as two components 1) groupness: a we-ness, a sense of being part of a team versus a more individualistic self-focus and 2) collective representation of the task i.e. a team mental model of task activity. Driskell and colleagues found team perspective was positively associated with performance. Stress caused a narrowing of team perspective, which resulted in limiting effective interactions within the group and this impacted negatively on performance, while the negative effects of stress on individuals well-being is well recognised (Beehr, 1985).

On a similar theme to Driskell et al., (1999), Campion et al., (1996) considered the direct and moderating effect of the degree to which members identified with the team on team characteristics. This is termed "single team identity" and consists of three items: single team membership, team member permanence and single team functioning. Positive relationships were found between single team identity, team characteristics and effectiveness. Teams with a stronger identity were more flexible, illustrated more favourable process characteristics and greater effectiveness. No moderating effects were found of single team identity on the relationship between team characteristics and team effectiveness. Not dissimilar in approach, considering categorising teams on the extent to which they fulfilled the functional definition of team, Carter (2000) studied differences in well-being within teams, quasi teams and non-teams, reporting that employees who worked in teams reported greater well-being.

Overall, regarding team inputs and their relationship to well-being, no clear patterns or consistent findings emerge. This may be a product of the different types of teams studied where certain aspects of group composition may have a greater impact depending on the team task and context. There does appear to be consistency in emerging findings that team perspective or identifying with the work team has positive consequences for the team.

Processes

The processes within the team are strongly related to team effectivness (Campion, Papper & Medsker, 1996). This section highlights process variables which may explain psychological benefits of team work such as well-being and job satisfaction. Group processes can be conceptualised at either the group or individual level. Group processes may be viewed as creating a context in which the team operates. Context "plays a critical role in shaping individual attitudes and behaviour... Hackman (1992) theorised that groups affect individual behaviour because they influence both ambient and discretionary stimuli which provide cues about appropriate attitudes and behaviours within the group" (George & Jones, 1997: 154). George and Jones (1997) further propose that the context plays an important role in facilitating spontaneous behaviour, including helping and support. They suggest that the development of cooperative norms have a direct link to helping behaviours due to the establishment of expectations. The norms also increase the uniformity of helping. With relation to performance, they suggest that reducing helping behaviour variability enhances group performance, as the expectations of the team are clear and congruous (Hackman 1992). Teams with particularly unhelpful individuals had the lowest performance.

Group Efficacy/ Potency

Group potency, which may be thought of as team spirit, is the belief of the group that they will be effective (Guzzo & Shea, 1992); it is similar to expectancy (Vroom, 1964) and the individual concept of self-efficacy (Bandura, 1982). Although research on potency is limited, Hackman (1987) proposes that teams in which there is high potency will be more committed and work harder for the success of the team than teams in which there is low potency. Team efficacy is a strong predictor of team performance (Gully, Joshi & Incalcaterra, 2001); and of job satisfaction (Campion et al., 1993).

Decision Influence

Participation "increases team members sense of responsibility and ownership of the work" (Campion et al., 1993: 826). Wagner (1994) reviewed the evidence for relationships between participation, performance and satisfaction, concluding participation can "have statistically significant effects" (pg. 312). Group research on individuals has revealed that

decision influence is positively related to satisfaction and commitment (Drake & Mitchell, 1977; Vroom, 1964; Wood, 1973). Deluga and Perry (1991) found evidence for a positive relationship between influence and satisfaction with the supervisor; while Philips' (2001) research links decision influence and performance, reporting that team performance is related to decision influence, self-efficacy, higher willingness to return, lower task withdrawal and satisfaction with the manager.

Cohesiveness

Empirical research has focused on the positive relationships between cohesion and group performance in a variety of team settings (e.g. Mullen & Cooper, 1994; Smith at al., 1994; Barrick et al., 1998). Yet, the most direct effect may be from performance to cohesiveness rather than cohesiveness to performance (Mullen & Cooper, 1994). Some studies examine the relationship between cohesion and well-being outcomes. Lack of cohesion is consistently found to be related to burnout in a variety of settings (Kruger, Botman & Goodenow, 1991; Leiter, 1992; Gaines & Jermier, 1983; Pretty, McCarthy & Catano, 1992). Highly cohesive teams may also experience higher morale, job satisfaction, and are more efficient in task co-ordination than those teams with lower cohesion (e.g. McGrath 1984; Skaret & Bruning, 1986; Zaccaro & Dobbins, 1989; Keller, 1986). Such positive outcomes of high cohesion may be explained by an increase in team members helping behaviours, generosity and co-operation (Isen & Baron, 1991).

Leadership and Team Member Exchange

Seers, Petty and Cashman (1995) considered team-member exchange, which is similar to leader-member exchange, but differs in that it is not dyadic. The key assumption of team member exchange is founded in Jacobs (1970): "individuals can and do aggregate their perceptions of role episode exchanges across members of the work group" (Seers et al., 1995:22). A team member experiencing a high level of team-member exchange quality is more likely to be more cooperate and collaborative than a individual experiencing lower levels of team member exchange quality. Previous work by Seers (1989) found positive relationships between team–member exchange quality and job satisfaction and performance.

Hellman, Witt and Hilton (1993) also report a positive relationship between team member exchange and commitment.

Supportive Relations

"Building on a metatheory that depicts the primary work group as the most important subsystem within an organisation (Likert, 1961), ... researchers have sought to increase work effectiveness by building integrative and supportive interpersonal relationships among group members" (Mossholder, Bedeian & Armenakis, 1982:757). The premise being that supportive interactions remove emotional blocks to group functioning, thereby increasing self worth and allowing the individual within the group to focus on achieving the task. Mossholder, Bedeian and Armenakis, (ibid) examined the direct relationship between peer group interaction, job performance and job strain. Self-esteem was considered as a moderating variable. The analysis revealed that with regards to individual performance, peer group interaction had a greater impact on performance for low self-esteem persons than for high self-esteem persons. Further evidence contributing to this understanding revealed that positive peer group interaction is positively correlated to high satisfaction and low tension in nurses (Mossholder & Bedeian 1983), while negative interactions are correlated to psychological distress (Hart, 1994).

Positive peer group interaction encompasses some aspects of social support. Empirical evidence of the relationship between social support and well-being is equivocal. Yet, by whichever mechanism social support affects well-being: direct (Cohen & Wills, 1985) or buffering the negative effects of the stressors on well-being (LaRocco, House & French, 1980) it can be concluded that social support does have a positive effect on well-being. Bishop and Dow Scott (2000) in their study of production employees in sewing teams found that satisfaction with supervisors was related to organisational commitment, and satisfaction with co-workers was strongly related to team commitment and also organisational commitment.

Campion et al., (1993, 1996) studied social support as a factor within their team model. They aggregated their data to the group level of analysis for this study, following the

appropriate guidelines. In their study, effectiveness was assessed by three measures: productivity, employee satisfaction and manager judgements of effectiveness. By incorporating both aspects of productivity and satisfaction the definitions of effectiveness in the literature (Gladstein, 1984; Hackman, 1987; Sundstrom et al., 1990) are addressed. The model was tested empirically using members of administrative support teams within a large financial services organisation. The study revealed that the job design and process characteristics were more predictive of effectiveness than interdependence, composition and context. Campion et al., (1996) repeated their study addressing some of the limitations of their previous work. For example to reduce common method variance, methodological separation was employed, whereby data was collected from different sources or in different time frames. Although social support is not clearly defined, referring to "helping each other" and "positive social interactions", it is proposed that effectiveness is improved when such behaviours occur. Support is also recognised by Gladstein (1984) who refers to it as a group maintenance behaviour. It is further equated to social facilitation (Harkins, 1987; Zajonc, 1965) in the way that it is "arousing and may enhance effectiveness by sustaining effort on mundane tasks" (Campion et al., 1993: 829). They concluded that it is very important to encourage positive team processes, including, social support, communication and potency. Schaubroeck and Fink (1998) propose that social support influences the individual's self-efficacy, which in turn determines his/her self-perceived causal agency of coping, therefore suggesting a link between team social support and team self-efficacy or potency. Jordan et al., (2002) considered the impact of potency, social cohesion and team member exchange in explaining team performance in an Air Force personnel context. Performance was assessed using six measures: academic, team leadership problem solving, physical, field and computer simulations/exercises and commander ratings of performance. Their findings were consistent with Campion et al., (1993, 1996) where group potency was associated with three of the six performance measures. Cohesion and team member exchange were also important.

Summary

A variety of process characteristics have been discussed and their impact on team outcomes, including job satisfaction and organisational commitment. The results are consistent;

positive team processes have performance benefits for the team, and psychological benefits for the individual.

The above section describes team factors, classified as team inputs and processes which may lead to better well-being and associated outcomes in teams. An alternative explanation for well-being in teams not addressed in the above discussion is team climate.

Climate

Climate influences and is influenced by surrounding processes, both psychological and organisational. In empirical research, climate is often "considered as an intervening variable between input and output variables in organisational models" (Peiro et al., 1992:49) (e.g. Ekwall, 1985, as cited in Peiro et al, 1992; Carter, 2000). Alternatively, climate may be considered in terms of a carousel (Gelade & Ivery, 2002), a feedback loop with climate as the initial construct. Relationships have been observed between climate and outcome variables: such as job satisfaction (Kozlolwski & Hults, 1987; Joyce & Slocum, 1984); performance (Kozlolwski & Hults, 1987; Jones & James, 1979); staff turnover (Marrow et al., 1976); and leadership behaviour (Joyce & Solcum, 1984; Kozlowski & Doherty, 1989). The relationship between climate and well-being is less developed. The discussion in the paragraphs below addresses recent developments in climate research, drawing on the concepts of climate quality, climate strength and causality issues.

Organisational psychologists have "long been interested in understanding group members' shared experiences and how these experiences influence individual's perceptions, their behaviour, and the success of the group. The climate of an organisation is a construct that has proved useful in conceptualising this domain" (Lindell & Brandt, 2000:331). Climate research reveals two challenges; initially, defining the construct and secondly, accurate measurement at appropriate levels of analysis. Climate research can be divided into two perspectives, which are, in principle, not mutually exclusive (Anderson & West, 1998): the cognitive schema approach, and the shared perceptions approach. The former was defined by James and Sells (1981:276) as "individual's constructive representations of proximal environments ... expressed in terms of psychological meaning and significance in the

individual". Beyond this individual level the importance of shared perceptions as the foundation of climate is acknowledged by the alternative stance, defined as "…the shared perception of the way things are around here. More precisely, climate is shared perceptions of organisational policies, practices and procedures" (Reichers & Schneider, 1990:22). Such an approach requires consensus over designated variables and pre-determined levels of agreement thus enabling perceptions as truly shared to be recognised. Anderson and West (1998) propose that the work group is an appropriate level at which climate can be measured, creating the Team Climate Inventory (TCI), a four factor climate for work group innovation based on the innovation and team climate literature.

Beyond these perspectives it is useful to approach climate in terms of composition models. James (1982: 220) defines a composition model as "the specification of how a construct is operationalised at one level of analysis is related to another form of that construct at a different level of analysis", thus composition models explain how the same construct can be expressed at different levels of analysis. The following chapter discusses composition models in greater detail, for this discussion direct consensus and dispersion models will be described. These models are the two most commonly addressed in I/O Psychology. A direct consensus model implies that the "meaning of the group level construct is the *consensus* among the lower level variables" (Schneider, Salvaggio & Subirats, 2002:220). When discussing climate, a direct consensus model refers to the quality of the climate. A dispersion model implies that "the meaning of the group level construct is the *variance* of the lower level variables" (Schneider, Salvaggio & Subirats, 2002:220). Recently it has been argued that this dispersion, the climate strength should be seen as a theoretical construct that is useful for understanding work unit outcomes (Brown & Kozlowski, 1999; Gonzalez-Roma, Peiro & Tordera, 2002; Lindell & Brandt, 2000). The greater the agreement (the less variance) represents a stronger climate. Lindell and Brandt (2000) refer to climate strength in terms of consensus, however their conceptualisation of variability in climate perceptions is not derived from Chan's (1998) work. The terms agreement, consensus and strength are used interchangeably.

Climate quality has received greater attention from organisational climate researchers, while the interest in climate strength is relatively recent, and has to date received less attention (Brown & Kozlowski, 1999; Klein, Conn, Smith & Sorra, 2001). In the following paragraphs empirical research conceptualising climate as quality and strength are reviewed.

Climate Quality

"Team climate represents group-level shared perceptions of important contextual factors that affect group functioning, and via mediating climate perceptions affect group outcomes" (Kozlowski & Bell, 2001:19). Climate quality influences the experience of stressors. Repetti (1987), using a global measure of climate quality found it was negatively related to depression and anxiety, and positively related to self-esteem. Peiro, Gonzalez-Roma and Ramos (1992) considered the impact of climate quality on role stress, tension and job satisfaction. Climate was measured in terms of support, respect for rules, goal orientated information and innovation. The findings suggest that climate quality is related to perceived role clarity, role conflict, job tension, leader's consideration behaviours and over all job satisfaction. It can therefore be concluded that a good team climate is associated with more satisfied, less stressed team members who achieve greater performance.

Using the team climate inventory, conceptualising the climate quality in terms of the quality of team processes, Carter (2000) and Borrill et al., (2000) report that positive mental health and well-being effects are related to working in a well functioning team. A well functioning team is one in which key team processes are evident. These key team functioning processes were identified as: clear team objectives; understanding team roles and interdependence (team functional characteristics); participation; information sharing & decision making: support for new ideas; commitment to excellence and task reflexivity (team processes) (Carter, 2000). The greater the quality of these team processes the better the mental health of those individuals working in the team (Carter & West, 1999). Borrill et al. (2000: 176) suggest that these findings imply that processes relating to quality of team functioning "somehow compensate for the limitations and frustrations of organisational factors in the work experience of their members, and that this can significantly influence the level of stress experienced by organisational members" (Borrill et al., 2000:176). In addition positive team

processes are likely to "provide a better focus on reality. A team member will be more aware of different view points, provide feedback from more than one source of the impact of individual behaviour and encourage a greater appreciation of reality" (Carter, 2000:221). This echoes Maslach's (Maslach, 1993; Maslach & Leiter, 1996) work on burnout in which it is suggested that a well-functioning team has a strong sense of community, and provides social support through well-developed team processes and effectively resolves conflict.

Relationships between climate quality and research excellence in a university setting (West, Smith, Feng & Lawthom, 1998); productivity through the mediation of job involvement and effort (Brown & Leigh, 1996); customer satisfaction and other factors of organisational performance (Gelade & Ivery, 2002) have also been reported.

Climate Strength

Guzzo and Shea (1992) suggest that variability of group composition is related to the productivity of the team, and the climate strength premise develops this idea further. Gonzalez-Roma, Peiro amd Tordera (2002) suggest that the extent to which climate perception is shared by the team affects the relationship with team outcomes. The argument is that when the climate is strong, the behaviours are more predictable than when the climate is weak, regardless of whether the climate is negative or positive (Schneider, Salvaggio & Subirats, 2002).

Gonzales-Roma, Peiro and Tordera (2002) examined the antecedents and moderator influences of climate strength, examining the moderating effects of climate strength on the relationship between climate quality and team outcomes. They propose that greater social interaction among group members and greater leader informing behaviour is associated with greater climate strength as "unit leaders can play a crucial role in climate formation (Schein, 1985; Kozlowski & Doherty, 1989)" (pg. 466). They report that climate strength of innovation moderated the impact of the quality of climate for innovation on satisfaction and commitment. Kozlowski and Doherty (1989) considered climate and leadership, reporting that climate strength was greater when work unit members had high quality interactions with their supervisor, which led to more positive climate perceptions. Climate strength was not

found to moderate support perceptions. Facets of climate considered in their study are support, innovation and goals orientation. The positive relationship between support and satisfaction can be explained by the supportive behaviours demonstrating to individuals that their personal and work-related problems are of concern to their colleagues and supervisor (Kopelman et al., 1990). O'Reilly and Chatman (1986), and Ostroff and Bowen (2000) suggest that organisational commitment is a result of supportive relationships among employees as such relationships cause employees to feel a sense of belonging that contributes to fulfilling their affiliation and social needs. Bliese and Britt (2000) examined the moderator effects of climate consensus of leadership on the relationship between work stressors and morale, and work stressors and depression. Moderation effects of consensus on the stressor-strain relationship were found, supporting their hypothesis that positive social environments help individuals cope with stressors. Lindell and Brandt (2000) also tested for moderation effects of climate strength but did not report any interaction effects.

Focusing on the direct effect of climate strength, Bliese and Halverson (1998) report a positive relationship between climate strength and well-being within US Army teams. This study was replicated using pseudo groups (random individuals' data assigned to groups). They suggest that lack of consensus within a team, i.e. within group diversity, may trigger group pressures and that such pressure would contribute to a stressful work environment which has a negative effect on well-being. Also considering the direct effect of climate strength, Gonzales-Roma, West and Borrill (in progress) explored the relationship between climate strength, integrating group processes and externally rated team innovation. They found that when teams had high levels of within team agreement (a strong climate) that this was negatively related to innovation, suggesting that "the influences of climate strength on work team outcomes may depend upon the team outcomes considered and the type of work teams studied" (pg. 18).

The few studies which have examined the direct and moderating influence of climate strength have produced inconclusive and contradictory results. Schneider and Reichers (1983) stress that it is meaningless to apply the concept of climate without a specific referent, for example climate for team work. This results in the study of a varied and wide

range of climates, and such inconsistencies may be dependent on the lack of specificity in climate definition or also on the task of the team and the different outcomes measured.

Causal Directions

The studies reviewed suggest a relationship between climate quality and strength, and various outcomes associated with performance. However, the direction of causality is undetermined, and evidence from longitudinal studies inconclusive (Gelade & Ivery, 2002). Ryan, Schmit and Johnson (1996) found that customer satisfaction predicted employee satisfaction, but that employee satisfaction did not predict subsequent customer satisfaction. While Koys (2001) suggests that climate leads to performance, reporting that employee satisfaction predicted customer satisfaction and that Organisational Citizenship Behaviours predicted organisational profits. Ulrich, Halbrook, Mecker, Stucklik and Thorpe (1991), and Schneider and Browen (1992) suggest that customers are influenced by the attitudes of service employees they encounter. This is based on the assumption that satisfied employees "radiate positive affect" thus producing a satisfying service experience. Such relationships are not supported by Gelade and Ivery (2002) who only report a weak correlation between climate and customer satisfaction. Tierney (1999), drawing on Schneider and Reichers (1983) suggests that social factors such as interpersonal relations can play a key role in influencing climate perceptions, thus providing an alternative view of causality in this ongoing discussion.

Conclusion

As organisations grow in size and complexity it is becoming increasingly necessary to organise individuals to work in teams to enable co-ordination and the achievement of objectives. Team effectiveness theory proposes many factors which impact on the effectiveness of work teams. This theory was also used to explore team factors which influence team member well-being and associated outcomes.

Driskell et al., (1999) suggest that an antecedent for effective team behaviour is for the team to hold a team perspective. Such a perspective is positively associated with performance. This notion of team identity and effect is also addressed by Campion et al., (1996: 448) who

reported that single team identity may "play a role in defining teams and predisposing their effectiveness". Such teams were reported to have more favourable processes and better performance. The NHS studies (Borrill et al., 2000) also explore issues of belonging to a team. There is clearly more to understand regarding team grouping/identity and associated processes and outcomes. Previous research has not focused on the differentiation between team and quasi team membership. When differences between teams/quasi teams and people not working in a team are explored, notable differences between the two team groups and the non-team workers are to be expected. The tasks performed by individuals working alone are likely to be individual based compared to the group based tasks of those people working in teams/quasi teams. It is therefore more meaningful to compare differences between similar ways of working (tasks) rather than very different ones. Developing the team/quasi team distinction further, this concept has not been addressed beyond categorisation (team or quasi team or non-team). This thesis develops the team/quasi team distinction further, considering team/quasi team at the team level and on a continuum from a well-defined team (team) to less defined team (quasi team).

Climate research also provides a basis for understanding factors influencing teams. Issues surrounding the concept of climate lead to consideration of both climate strength and quality. Drawing on the quality/strength debate from the climate research, agreement on team identity and its effect have not been investigated. Research on climate strength is in its infancy. There is little empirical data exploring the effect of climate strength on other team processes and the moderating effects climate strength has on the relationship between climate quality and team processes. In this thesis, these themes are developed further; examining predominantly climate quality, and also exploring the impact of climate strength on well-being outcomes, and the moderating effect of climate strength on the relationship between climate quality, team processes and outcomes.

It is clear from the literature that there are productivity / performance benefits to be gained from team working. While Driskell et al., (1999) suggest that stress may reduce such performance benefits. There is little research addressing the softer measures of team working, such as well-being and mental health. Therefore the extent to which group factors

effect the well-being of team members and the mechanisms through which this occurs is less clear. This is due to issues involving direction of causality, and relative importance of work characteristics compared to other aspects of the work environment (Sonnentag, 1996). Cohen and Bailey (1997) propose that effectiveness should take into account three dimensions: performance, team member attitudes, and behaviours. The research presented in this thesis assesses the impact of team characteristics on performance and team member attitudes.

Recent empirical evidence suggests that working in a team has a positive impact on individual well-being. Social support, conceptualised as a process variable, is reported by Campion et al., (1996) along with efficacy, as the strongest predictor of effectiveness and job satisfaction. Gladstein (1984) and West (1994) discuss social support as group maintenance behaviour, while social support was also reported to mediate the relationship between working in a team and well-being within the NHS (Carter, 2000). Thus groups at work may be an important source of social support, and this may, in turn, impact on team effectiveness and well-being outcomes. Despite these findings there is little research considering the detailed role of social support in teams. The research conducted in this thesis addresses this imbalance. The following chapter reviews current literature on social support in teams.

Chapter 6

Social Support in Teams

Chapter Overview

The important role of social support and the relationship between support, the experience of stress and well-being outcomes have been discussed. Stress and well-being outcomes have also been reviewed. Teamwork, the context in which social support is studied in this thesis was discussed and the relationship between team and well-being presented. The issue of levels of analysis and conceptualisation of variables has also been raised during the review. This chapter explores these levels issues further and clarifies the perspective adopted in this thesis. Findings from hospice support groups, sport, armed forces and work organisation teams are then presented. Within such work environments which are characterised by stress related illness and its economic consequences, two themes emerge as having a positive impact on employee well-being: social support and team working. This chapter integrates these concepts.

Issues of Levels of Analysis

A criticism of earlier empirical work on teams and the study of processes within teams is that there is a disregard of levels of appropriate analysis. Such disregard may contribute to equivocal or confounding findings across the team research. The following section therefore addresses these issues.

Research on team factors and related outcomes potentially deals with different levels of analysis (e.g. group and individual level). With the use of mixed levels of analysis and a rise in interest of multi level analysis it is becoming increasingly important to be clear regarding the level of analysis being explored in terms of operationalisation, analysis and discussing findings. Research on teams is often conducted at the individual level of enquiry and data then aggregated to represent the group. There is a great deal of discussion regarding the appropriateness of such analysis. For example, constructs may also be group constructs and measured as individual ones, a criticism which Brodbeck (1996) makes about the models of work group effectiveness (reviewed in the previous chapter).

To conceptualise a variable at the group level from the individual level there are two prerequisites. Firstly there must be sufficient interrater reliability and secondly the variable must make conceptual sense. The statistical aspect will be addressed first followed by conceptual issues.

Statistical Issues

The statistical aspect of levels of analysis revolves around aggregation issues, the mathematics of which will be discussed in the analysis chapter. Relationships between constructs at different levels of analysis are referred to as composition models (Chan, 1998). Chan (ibid) proposes a typology of five composition models: additive, direct consensus, referent-shift consensus, dispersion and process. For the purpose of this thesis, the additive, direct consensus and dispersion models are discussed.

Table 6.01 Additive, Direct Consensus and Dispersion Models From Chan (1998:236)

Functional relationships	Typical operational combination	Empirical support
Additive model		
Higher level unit is summation of the lower level units regardless of the variance among these units	Summing or averaging lower level scores	Validity of additive index (e.g. mean of lower level units)
Direct consensus model		
Meaning of higher level construct is in the consensus among lower level units	Within-group agreement to index consensus and justify aggregation	Value of within-group agreement index (e.g. Rwgj); validity of aggregated scores
Dispersion model		
Meaning of higher level construct is in the dispersion or variance among lower level units	Within-group variance (or its derivative) as operationalisation of the higher level construct	Absence of multimodality in within-group distributions of lower level scores; validity of dispersion index

The additive model may be used for aggregating variables such as age and length of time working in the organisation. The direct consensus model assesses the extent to which individuals within a group provide approximately the same rating (Kozlowski & Hattrup,

1992). When there is agreement then aggregation is justifiable. The dispersion model takes the extent of agreement as the new focal variable (see climate strength discussion in the previous chapter). These models are used in this thesis.

Conceptual Issues

On the appropriateness of concepts at different levels, Hackman (1992) proposes the following distinctions between group and individual level concepts. When a factor is potentially available for all members of the group it is considered an ambient stimulus. Ambient stimuli can be conceptualised at the group level. When the factor is not the same for all members of the group, it is termed discretionary and conceptualised at the individual level. He provides the following examples of ambient stimuli: group composition, communication, and cohesiveness; and of discretionary stimuli: social support and conflict. Repetti (1987) refers to individual and common social environments. The common social environment is the "social climate shared by employees in the same work setting" (pg. 711) therefore representing the overall social climate at work. It is assumed to be relatively independent on the characteristics of any one individual. The individual social environment refers to the "local social space surrounding one individual in a work setting" (pg. 711). It is determined by: the common social environment; individual's personality traits which influence social behaviour and interactions with others; and aspects of the job which may influence interactions. Support for this approach is provided by Sonnentag (1996) who conceptualises social support at the individual level and by Sarason, Sarason and Shearin (1986) who have suggested that social support ought to be conceptualised as a stable individual difference variable.

However, there is considerable overlap between individuals and the experience of the work group. Felton and Shinn (1992) recognise that limitations of the social support literature may be due to continued research at the individual level. They argue that social/contextual factors may ameliorate the negative effects of stress, pointing out that in studies of social support the construct is usually measured by asking individuals to rate their respective levels of support. When this approach is used, they state that it is unclear as to whether the measure of social support is an individual level-factor or a contextual factor. They

question whether one is measuring individual perceptions of support or actual contextual differences in support, or some combination of the two. Bliese and Britt (2000) in support of Felton and Shinn (1992), also suggest that the lack of consistency in social support research may be due to confusion as to whether support is measured as an individual level factor or a contextual factor. Additional evidence supporting the move of support beyond the individual level is provided by the literature on leadership exchange, which is based on the key assumption that individuals are able to, and do, aggregate their perceptions of interactions across members of the work group (Seers et al., 1995). Therefore, social support can be conceptualised across the work unit and employees can think in terms of their team as an identifiable group and colleagues as another identifiable group.

George and Bettenhausen (1990) note the focus on individual level analysis when attempting to understand the correlates and causes of organisational behaviours, and suggest that advancement may be made if the focus is broadened. George and Bettenhausen (ibid) are not alone in advocating the group level study of certain constructs. In support of this premise Bliese and colleagues (Castro, 1998; Jex, 1999; Britt, 2000) have been studying such discretionary stimuli, (e.g. leadership and support) at the group level. They argue that relationships may be missed if data is only considered at the individual level. Bliese and Halverson (1996) proposed a group level analysis of stress, while Jex and Bliese (1999) investigated efficacy as a group level construct. Bliese and Castro (2000) consider support from leaders as a macro characteristic of the work environment, focusing on how levels of support within the group affect individual well-being and Bliese and Britt (2000) climate of work environment, surmising that analysis reveals justification for such conceptualisation. Belise and Jex (1999) propose that measuring shared perceptions among members of a group regarding the social support within the group is an alternative way of examining the buffering effects of social support.

For pragmatic reasons, in terms of interventions, Belise and Jex (ibid.) also propose that it is more practical to conduct these at the group level and as such all process should be studied at this level. In support of the intervention proposition, Burke (1993) presents evidence that group level interventions are more effective than individual level ones, while Cox (1997:1)

argues that "a focus on the individual will prove insufficient in itself to deal with health problems related to work. As wider consideration of organisational factors are argued for." A great deal of the research within social support is carried out at the individual level, while work on teams is either carried out at the individual or team level. Rarely are these concepts considered at a multi level. Increasing our understanding of group level influences and effects on various outcomes is important in terms of developing interventions. While individual level interventions are expensive and may appear elitist to those employees outside the programme, group level interventions are more cost and time effective and as suggested by Sommers et al., (2002) may be more effective than individual level interventions. Recent research has moved beyond the conventions of ambient and discretionary stimuli and adopted a more holistic approach to the study of factors influencing the experience of team working and outcomes. This thesis also adopts such an approach.

This section has provided an argument for examining constructs at the group level previously only considered at the individual level and provides support for the study of such constructs beyond the individual level. Felton and Shinn (1992) addressing the shortcomings of such an individualistic bias propose steps towards an "extra-individual" treatment of social support and suggest examining the role of groups.

It is important therefore to be clear about the levels at which data are collected and analysed. Examining relationships at different levels of analysis enables a more thorough appreciation of factors which influence behaviour within an organisational context. The following section examines the existing literature on social support within teams.

Social Support in Teams

Social support has been studied in a range of settings at work – from nurses in hospitals to managers in offices. One feature that links these and the many other settings is teamwork. The context of teamwork and its impact has very rarely been considered in terms of the opportunity for support, and when it has, support has been examined in very little detail and lacking conceptual rigour (Carter, 2000). The social network has been a focus of research

within the social support field (Mitchell, 1969). However, this is different from teamwork as network research tends to consider one individual within their network (Brisette, Cohen & Seeman, 2000). While team research is looking at a specific context and considers the team as a whole. Researching the team only considers one aspect/sections of an individual's entire social support network. There is also research on support groups (e.g. Alcoholics Anonymous). These too differ from teams as the function of such groups is to provide support, while teams exist to fulfil other functions, but may act as an important arena in which supportive relationships occur (Savery, 1988). The research evidence suggests that there is a link between working in a team and social support (Carter, 2000), and the relationship between stress and strain (Driskell et al., 1999). The team effectiveness literature also proposes a role for support in the effectiveness of the team (Campion et al., 1993; 1996). With the increasing prevalence of teams within organisations, incidence of stress on the rise and the recognised effect of social support, a greater understanding of the relationships between these constructs has the potential to enhance an individual's experience of work and also have positive repercussions for the organisation.

Hospice Teams/Groups

Richman and Rosenfeld (1987), investigating hospice personnel, concluded that just participating in a work-related support group was not sufficient for stress reduction. For the support group to be an effective mechanism through which stress can be reduced, certain support criteria need to be met. This premise builds on the work of Pines et al., (1981) who suggested that individuals need to be able to distinguish between support types and ensure that they receive all types. Richman and Rosenfeld (1987) suggest that in the case of hospice worker support groups, the types of support most successful in reducing stress were characterised by technical challenge, emotional challenge and shared social reality.

Zimmerman and Applegate (1992), adopting a communication perspective, examined the impact of comforting in hospice teams. Team functioning was related to social support quality. Satisfaction with perceived comforting communication from other team members was related to satisfaction with team communication and the evaluation of the team's success in accomplishing its tasks.

Sport Teams

Within the sport team context, social support provided by coaches is positively associated with team member's perceptions of task cohesion in high school football teams (Westre & Weiss, 1991), cohesion in college basketball teams (Weiss & Friedrichs, 1986), and improved performance in college football teams (Garland & Barry, 1990).

Rosenfeld, Richman and Hardy (1989) studied social support in university sport teams. Student-athlete support networks were found to consist of coaches, teammates, friends and parents. Each source made a unique contribution to the athlete's support network. The coach and teammates provided the support types requiring expert knowledge of the sport, such as task appreciation and task challenge; while support not requiring expertise, such as emotional support, was provided by other sources e.g. friends.

Proposing social support as an intervention for university sport teams Rosenfeld and Richman (1997) claim social support "may be critical to building a working, achieving successful team" (pg. 140). The benefits of social support for the team are proposed to be a reduction in stress, the effect of which may be twofold. The quality of team relationships are proposed to improve, which "should" (pg. 139) increase team member ability to work together. As the relationships develop and become more intimate, the team are better equipped to adapt to new situations, thus, resulting in a more effective, efficient team. It can therefore be concluded, "social support enhances group members communication and work performance" (pg. 134).

Armed Forces Teams

Bliese and colleagues (1998, 2000) have carried out several studies embracing the use of multi-level analysis using social support and related constructs within a military setting. Bliese and Halverson (1998) examined the effect of group consensus (agreement) on psychological well-being. Drawing on theories of social influence (Festinger, 1950) and group socialisation (Moreland & Levine, 1982) a link between lack of consensus and stressful environments is established, concluding that lack of consensus leads to stressful

work conditions, which in turn leads to poor psychological well-being among members of the group. This does however imply a causal direction which cannot be verified by the data, but is intuitive. Consensus was examined in relation to leadership climate and peer relations within the group. The peer relations scale assessed perceptions of social support and bonding within the group. They found that "consensus scores explained unique variance in psychological well-being after controlling for effects of Army company type, company size, and absolute level effects of peer relations and leadership climate" (pg. 575).

Adopting a similar rationale, Bliese and Britt (2000), examined consensus of group leadership, reflecting the quality of the social environment within groups and the impact on strain experienced by the individuals within the group. They examined the degree to which individuals reactions to stressors were influenced by the quality of their shared social environments. Quality of social environment was assessed by measuring the degree of consensus among group members about leadership, highlighted as a key workplace issue. The leadership scale assessed consideration and competence of leaders, the consideration dimension may be considered to equate to social support. The results revealed that the quality of the social environment moderated relationships between 1) work stressors and moral and 2) work stressors and depression. "The interaction effects revealed that work stressors had a weaker relationship with strains when individuals were members of groups that had high consensus about their leadership. These results support the hypothesis that positive social environments help individuals cope with stressors. The results also support the idea that it is valuable to measure and model social support as a contextual effect" (pg.13). Bliese and Castro (2000) expanded on the demand-control model (Karasek, 1979), reporting that high role clarity reduced the effects of the high workload, only in groups where there was a supportive leader. Deducing that "contextual variables play a strong, but often unexamined, role in occupational stress research" (pg. 71). Control and role clarity buffered the effects of high work demands, but are unimportant when leadership is low. Their research extended the demand-control-support model by substituting role clarity for control, hypothesising that role clarity would mediate the relationship between work overload and strain, and assessing support at the unit level. Supervisory support is conceptualised as a contextual variable shared by group members. This is achieved by

aggregating the support variable, thus reflecting the "averaged perceptions of all the group members", thereby assessing the contextual work environment beyond the scope of assessing only individual level variables.

Work Organisations

Lantz and LaFlamme (1996) studied leadership, conditions of influence and effectiveness in teams. They posited that the exchange of social support within the team and between the supervisor is related to opportunities for exercising influence at work. Three aspects of support were examined: 1) what the superior provided 2) what the individual provided the superior and 3) what support the individual gave within their team. The results suggested that the richer the exchange between superior and subordinate and the richer the exchange between the work group the more the individual felt they had the opportunity to influence departmental decisions, set a personal agenda, and perform tasks in the manner they felt most effective. This demonstration of a link between social support and perceptions of participation within the work place is supported by van Yperen, van der Berg and Willering (1999:377), who noted that participation "promotes employees sense of supervisor support". Participation was earlier identified as an antecedent to well-being (Jackson, 1983).

Griffin, Patterson and West (2001) considered the impact of supervisor support on job satisfaction and different levels of team implementation. When team structures are introduced the role of the supervisor changes, so that their support and direction become less important (Kerr et al., 1986). Griffin et al., (2001) propose that this reduction in importance of supervisor support will not influence the degree of job satisfaction experienced by the team members. They report that in organisations with high levels of teamwork, the impact of supervisor support behaviour on job satisfaction was weaker than in those organisations with lower levels of teamwork. It is important to note that it is weaker, but did still not predict job satisfaction. Thus social support from one's supervisor was found to be a less important source of individual job satisfaction when the extent of team working was greater, but not unimportant as it still predicted job satisfaction. At the company level they report that those companies in which team working is high, supervisor support is lower. The autonomy gained by team working contributed to the team members satisfaction, but this

was partially offset by the reduction in supervisor support. They suggest that the types of supervisor behaviours which are supportive in a team context may not be so in a different form of work context e.g. individuals completing tasks. They conclude "further understanding of how supervisors provide support within teams will have practical benefits for designing and managing teamwork" (pg. 548).

Williams (1998) carried out research in the Australian Taxation Office with the aim of identifying factors which affect job satisfaction of employees working in teams. Satisfaction with the supervisor was related to the respondent's perception of team effectiveness and satisfaction with own workload. Findings suggest that "autonomy and control, learning, variety, supportive relations among team members and a greater sense of providing a service to clients" (pg. 797) are sources of job satisfaction in teams. He suggests that stress causes team members to regress to old ways of doing tasks. "Training, in both new tasks and in group processes and team decision making, encouragement to participate in decision making and having clear objectives emerged as central to job satisfaction" (pg. 797).

The NHS studies (Borrill et al., 2000; Carter, 2000) revealed that individuals working in teams reported greater social support and role clarity which led to better well-being than those individuals who did not work in clearly defined teams. Carter (2000) suggests "both task and social aspects of team design relate to the experience of social support" (pg. 262). Several limitations and a degree of ambiguity exist pertaining to Carter's (2000) research design and interpretation. The first study suggested that the relationship between work grouping and well-being is mediated by role clarity and social support. Two measures of support were used, one assessed manager support, the second assessed colleague support. The term used is "colleagues" not team members and therefore it is unclear whether or not social support is being provided from persons internal to the team or from work colleagues beyond the immediate team, or both. It is posited that because staff are working as part of a clearly defined team they are able to help define each other's roles and support each other. But the source of support is unclear. It is possible that social support differs within teams and within the relationships team members have outside the team. She further suggests that the characteristics of being in a clearly defined team: shared objectives, interdependence,

role differentiation and performance of a specific organisational function are associated with well-being. From the clearly defined teams used to generate this data it is unclear as to the extent of agreement within the teams as to their status or if all team members perceive the work unit in the same way.

Summary

Social support has been studied in different team contexts. These teams are often involved in emotionally (and physically) demanding tasks, sometimes involving life/death incidents and decisions. Those within a less emotionally challenging office environment tend to focus on the effect of managerial support on strain and associated outcomes.

Conclusion

The negative impact of stress on individuals is well documented (e.g. Burke, 1993; Beehr, 1995). The effects have implications for individual health and within the organisation, implications for turnover rates, absenteeism and efficiency. The review has identified aspects of team working and social support which are associated with stress reduction and increased well-being. Within the increasingly pressured work place, behaviours that alleviate the experience of stress and promote employee well-being require greater understanding.

The literature review has highlighted several gaps in understanding concerning social support and social support in the context of team working. The review has also identified these as key areas of business interest in the current work climate. This section summarises these gaps or areas of limited understanding and then presents the hypotheses which address these gaps and enable some of the questions raised to be answered.

Teams are an integral structure within organisations. The benefits of team working are noted as improved productivity, quality, and customer service (Guzzo & Salas, 1995), thereby improving the competitiveness of the organisation. Benefits for the individual are also evident (Borrill et al., 2000). Research conducted within the NHS suggests that people who work in teams report less stress, and experience better well-being than those who do not

work in teams. Similarly, Campion et al., (1996) found a positive relationship between single team identity and the effectiveness of the team, suggesting that team identity "may play a role in defining teams and predisposing their effectiveness" (pg. 448). There is an emerging understanding of the differing impact of team members working in clearly defined teams as opposed to working alone and the role of team identity in determining the team processes and outcomes. This study will develop these ideas further, making comparisons between those employees who work in well-defined teams and those who work in looser units (quasi teams), yet still perceive to operate as a team as defined by Hackman, (1987), and Guzzo and Shea, (1992); and the impact on team processes and outcomes. This differentiation will be developed further in the second study assessing team working along a continuum from well-defined to less well-defined and the impact on team processes and outcomes.

Climate research was identified as an alternative conceptualisation of the team. Climate measures are often used to assess team functioning (Borrill et al., 2000), while climate may also be considered as the initiating environment. Aspects of the team climate have predominantly been explored in terms of the quality of the climate, such research reports positive associations between climate quality and team outcomes, such as customer satisfaction and performance (Gelade & Ivery, 2002). Climate strength has received less attention, yet recent research findings suggest value in conceptualising climate in this way (Bliese & Britt, 2000). The second study reported in this thesis addresses the impact of working in a team on climate quality, and also explores the impact of climate strength of being in a team on team processes and outcomes.

Social support has been incorporated into team effectiveness models. Campion et al., (1993) defined support as "helping each other" and "positive social interactions". On making suggestions on how to enhance the likelihood of a team being effective, Campion et al., (1996) highlighted the need to "monitor and encourage positive team processes"(pg. 450), of which social support is included. The importance of social support is also recognised by Galdstein (1984) in her model. Carter (2000) considered social support in teams, however she only assessed manager support and colleague support. Similar to other studies of social

support little attempt has been made to differentiate the effects of support from colleagues and those one works interdependently with (team members). The impact of the type of support has received less attention within organisational contexts. It is therefore unclear as to support from whom and the type of support that impacts on the relationship between teamwork, stress and well-being and performance outcomes. The studies reported in this thesis explore the impact of team working on different types of support and social support from managers, team members and colleagues and associations with stressors, well-being and performance. Recent research on social support has proposed benefits in considering social support beyond the individual level (Felton & Shinn, 1992); the second study therefore assesses social support at the group level.

The above has highlighted the existing gaps within literature and knowledge in terms of social support within a team context, and how the two studies conducted in this thesis address these gaps and, therefore, develop understanding in this area. The following section lists the study hypotheses. The hypotheses are based on the theoretical model and the relationships between variables proposed in the theoretical model. The variable specific hypotheses are presented in appendix 1.

Hypotheses

Study One

1 People who work in a team will report greater well-being outcomes than those who do not work in a team.

2 People who work in a team will report less role conflict and work demands; and greater role clarity, job security, feedback control and influence than those who do not work in a team.

3 a. People who work in a team will report greater satisfaction with all types of support from managers, and team members than those people who do not work in a team.

b. There will be no difference in satisfaction with support types from colleagues between people who work in a team and those who do not work in a team.

4   a. People who work in a team will report greater satisfaction with manager support and team member support than those who do not work in a team.

b. There will be no difference in satisfaction with support from colleagues between people who work in a team and those who do not work in a team.

c. People who work in a team will report greater satisfaction with all types of support than those people who do not work in a team.

5   The relationship between working in a team and well-being outcomes will be mediated by satisfaction with social support source and satisfaction with social support type.

6   The relationship between working in a team and work stressors will be mediated by satisfaction with social support source and satisfaction with social support type.

7   The relationship between satisfaction with social support source, and type and well-being outcomes will be mediated by work stressors.

Study Two

1   The greater the extent to which the unit are a team, the greater the well-being and performance outcomes in the team.

2   The greater the extent to which the unit are a team, the less role conflict and work demands; and greater role clarity, job security, feedback control and influence experienced.

3   a. The greater the extent to which the unit are a team, the greater the satisfaction with manager and team support.

b. The greater the extent to which the unit are a team will not influence satisfaction with colleague support.

c. The greater the extent to which the unit are a team, the greater the satisfaction with all types of support.

4   The greater the extent to which the unit are a team, the better the team functioning.

5   The greater the extent to which the unit are a team, the more positive the rating of manager behaviours within the team.

6   The relationship between the extent to which the unit are a team and social support

will be mediated by team functioning.

7   The relationship between team functioning and outcomes will be mediated by social support.

8   The relationship between team functioning and work stressors will be mediated by social support.

9   The relationship between social support and outcomes will be mediated by work stressors.

10 The greater the agreement about the extent to which the unit are a team will predict well-being and performance outcomes.

11 The greater the agreement about the extent to which the unit are a team will predict work stressors.

12 a. The greater the agreement about the extent to which the unit are a team will predict satisfaction with support source.

    b. The greater the agreement about the extent to which the unit are a team will predict satisfaction with support type.

13 The greater the agreement about the extent to which the unit are a team will predict team functioning.

14 The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and well-being and performance outcomes.

15 The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and team functioning.

16 The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and social support source and type.

17 The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and work stressors.

Chapter Summary

This, the final literature review chapter has drawn together the concepts introduced in the previous chapters. The importance of developing an understanding of the relationships between team working, social support and stress has been addressed. The limited research drawing on such literatures in combination has been reviewed, considering social support in different team contexts.

Chapter 7

Research Context

Chapter Overview

This chapter describes the context of the research. The organisation selection and access process are described. The business challenges due to prevailing economic factors and policy changes are discussed and the roles and responsibilities of employees within Branch Offices are explained.

Research Context

There are few social support studies set within the private sector. Most studies focus on the nursing profession and other care providing roles in which emotional labour is assumed to be a pertinent issue. To address this balance the private sector was selected as a research context. Within this context several large firms in which team working was established were contacted. Organisations engaged in initial conversations regarding the research were those within the communications industry, e.g. telecommunications. Contact was made via personal contacts. Once contact had been established the persons were sent a research proposal document. Where they were not the most appropriate contact, they provided details of an alternative source, who were then also sent a research proposal. Following this period, negotiation with Post Office Counters, now named Post Office Ltd., a subsidiary of the General Post Office, now named Royal Mail Group plc., was successful and the research proposal accepted. For clarity the organisation will be referred to throughout under the current name: Post Office Ltd..

Royal Mail plc., and Post Office Ltd. went through some major changes during the research period. These changes are a response to various economic factors and policy changes. The following will describe the situation that Post Office Ltd. was in at the start of the research and trace the changes that occurred.

In the years preceding the research, the now named Royal Mail plc. was a stable, lucrative organisation, incorporating brands such as Royal Mail and Parcelforce Worldwide. In 1999,

specifically with regards to Post Office Ltd. revenues grew by 1.6% with a profit of £32m. Overall this was the 23rd consecutive year Post Office Ltd. reported profits. This changed during the research programme.

Post Office Ltd. is considered one of the UK's leading businesses, employing around 200,000 people and generating annual revenues in excess of £7 billion. There are approximately 600 directly managed branch offices in the UK, and around 17,000 franchised sub-post offices. 80 million letters and packages are delivered daily, nearly double that of 10 years ago (8th May, 2002; BBC News)

Post Office Ltd. had been and is facing increased competition; FedEx and UPS have moved in on Europe's parcel delivery service, which is worth an estimated £17bn (Nov 1999). Additionally, with the rapid advancement in the development of information technology innovations such as the Internet and e-mail, businesses are relying less on the postal service as a means to communicate. In July 1999 the British government announced plans to give state owned Royal Mail plc. more freedom, thus allowing it to compete commercially. It also announced that the monopoly on mail deliveries costing £1 and under would be terminated. The postal services act came into effect in March 2002.

In early 2001 the General Post Office changed it's name to Consignia in an attempt to "prepare it's self for the new commercial environment" (8th May, 2002; BBC News). On March 26th 2001 Consignia was incorporated as a public limited company, registered in the UK and wholly owned by the British Government.

During the financial year 2000-2001 Consignia lost £1.1bn. The proposed reasons for such losses are:
- Fewer letters are being mailed
- Partial opening of the postal delivery market to private competition
- The price of sending first and second class letters has not risen in line with the costs
- Parcelforce business has faced stiff competition

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- Industrial action/striking by the unions resulted in many lost working days costing Consignia tens of millions of pounds
- Higher wages agreed with the unions
- Down turn in the advertising sector has led to a reduction in junk mail
- The cost of transporting mail, due to the poor rail service has also resulted in delays
- Location some central town branches are no longer suitable.
- High rent in central town locations
- Maintaining rural branches is uneconomical
- The 40-year monopoly status has resulted in the post office not focusing sufficiently on efficiency and productivity levels.

(13th June, 2002; BBC News)

Consignia changed its name to Royal Mail plc. on 4th November 2002, and Post Office Counters became Post Office Ltd. The organisation faces an insecure future, facing the challenge of changes in the way in which social security is paid. Payment of social security benefits makes up 40% of Post Office Ltd. business. This is due to change in April 2003 when pension books will be phased out and benefits paid directly on a monthly basis into bank accounts. Thus severely reducing the business of the Post Office.

In order to prevent the further decline of the organisation and revitalise the network, the following strategies are likely:

- Redundancies will be made in the region of 30,000 over a 3 year period
- Closure of approximately 3,000 rural post offices
- Abolishing the second daily delivery
- Increase in the price of sending first class mail to 28 pence
- Consignia to change names again, back to the recognised brand: the Royal Mail.

(13th June, 2002; BBC News)

Additional information is available on Royal Mail's corporate website at: www.royalmailgroup.com.

Roles and Responsibilities within Post Office Ltd.

This section introduces team working within Post Office Ltd. and details the roles and responsibilities of the staff who work in a Branch Office.

Team working in the Post Office

Hackman (1987) identified three categories of team. Manager led; those responsible only for the execution of assigned work. Self-managing; management retains responsibility for the design of the group as a performing unit while team members assume responsibility for monitoring and managing their own performance processes. And Self-designing; members also take on design responsibilities for decisions concerning task structure, membership changes, and norms for making decisions. According to these categories, Post Office teams would be classed as manager led. The teams consist of a Branch Manager, and in larger offices an Assistant Branch Manager, and Counter Staff. Counter staff may either be involved in counter transitions, for example foreign currency exchange; and in larger branches where a post shop exists, post shop staff man the shop which sells postal supplies and stationary such as envelopes, cards and glue.

The following paragraphs describe the roles and responsibilities of employees in the research sample. The order is based on seniority, the most senior position is described first. The information obtained in this section is obtained from job profile and job description documents provided by Post Office Ltd.

Retail Line Manager (Area Manager)

The Retail Line Manager is responsible for a cluster of Branch Offices within a region (approximately 52). They provide direction for the Branch Managers to ensure consistency of delivery and approach throughout the post office network to deliver business results. The Retail Line Manager reports to the Head of Area. Key interfaces for the Retail Line Manager are the Head of Area, Retail Line Managers and Branch Managers.

Key responsibilities:

- Ensure targets are achieved whilst upholding business strategy and policy and company values
- Embed the approach for dissemination of best practice to maximise sales and service within branches
- Delivery of the area budget whilst maintaining service targets
- Support Branch Managers in delivering sales and service excellence

Branch Manager (and Assistant Branch Manager)

The role of the Branch Manger is to lead the outlet team, ensuring high standards of customer service and to maximise product sales and outlet profitability. Objectives are set by the Retail Line Manager to whom the branch manager reports. Key interfaces for the Branch Manager are their team, the Retail Line Manager and the Post Office customers.

Key responsibilities:

- Promotes teamwork to support the attainment of all business objectives set by the Retail Line Manager.
- Manage staff performance through formal (training/appraisals/disciplinary process) and informal (coaching/feedback) mechanisms on a 1:2:1 basis and at weekly training sessions to ensure all staff are able to perform to business standards.
- Ensures all appraisal/ counselling completed as per business policy with development plans in place for all staff focusing on key deliverables
- Ensures clear communication on a regular basis to all team members of business requirements and all national standards in which they have a key role and are expected to deliver as individuals.

Counter Staff / Customer Service Advisor

The role of a customer service advisor is to contribute towards the on-going development and maintenance of a professional and profitable, customer-focused retail environment. Key interfaces for a customer service advisor is their Branch Manager, their team, and Post Office customers.

Key responsibilities:

- Promoting products and services
- Ensuring the customer understands the relevant features, advantages and benefits of alternative and additional products and services
- Contributing towards the achievement of sales targets and customer satisfaction targets
- Treating all customers in a professional manner

Chapter Summary

In this chapter the research context has been briefly described and the method used to gain access. The Post Office Ltd. organisation and the roles of participants have been presented. The following chapter describes the methodology for study one.

Chapter 8

Study 1: Team work and well-being: The role of social support

Method

Chapter Overview

In this chapter the first study carried out in Post Office Ltd. is described. The research investigated the differences in the experience of support for team members who work in teams and those who work in quasi teams, and the impact that this has on their well-being, job satisfaction and organisational commitment. The research questions, followed by the theoretical model are presented. The research design and study variables are then detailed, followed by the hypotheses.

Research Questions

1. In an NHS context, health sector professionals experience better well-being when working in a clearly defined team; social support from colleagues mediate the relationship between being in a team and well-being. Can these findings be replicated in a service sector in which employees do not perform a care giving role?

This overarching question explores at the individual level of enquiry the relationship between well-being in teams and quasi teams and the role of social support in this relationship.

2. Do employees who work in teams report greater satisfaction with support from different sources?

This question explores in detail the relationship between working in a team and satisfaction with different sources of support.

3. Do employees who work in teams report different levels of satisfaction with the types of support than those who work in less well-defined teams?

This question explores in detail the relationship between working in a team and satisfaction with different types of support.

4. Do employees who work in teams report different work outcomes than those who work in less well-defined teams?

This question explores in detail the relationship between working in a team and work outcomes experienced.

5. Do employees who work in teams report different types of work stressors than those who work in less well-defined teams?

This question explores in detail the relationship between working in a team and work stressors experienced.

Figure 8.01. The Theoretical Model
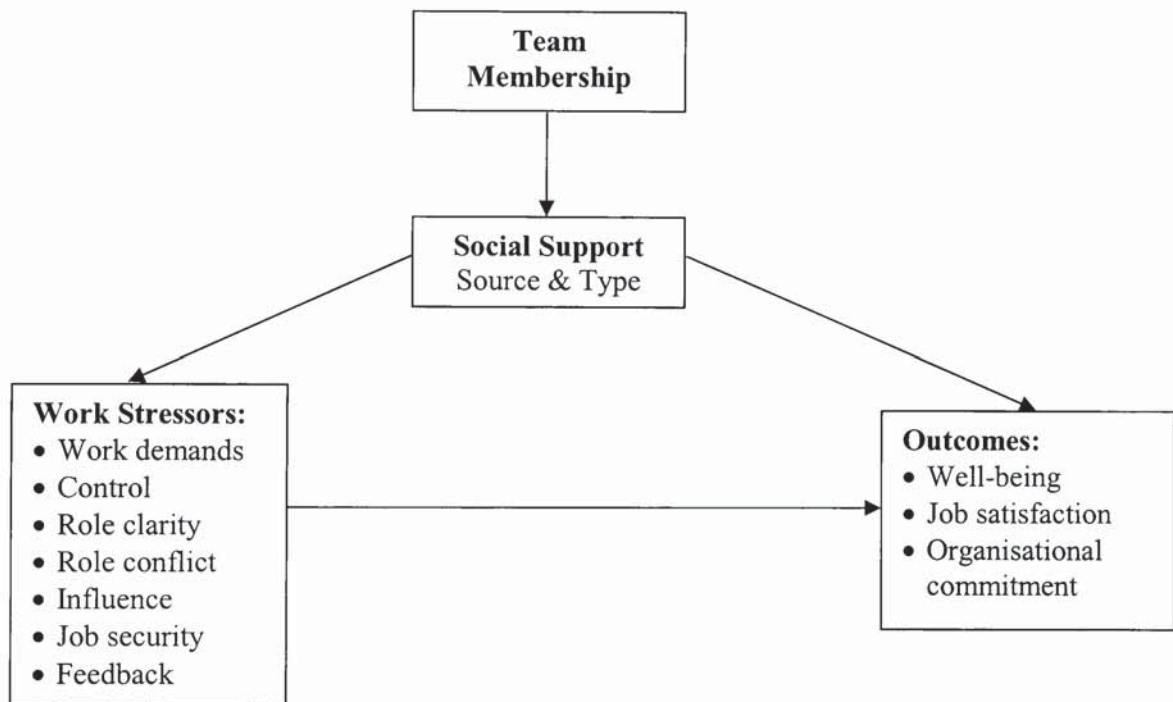
Study Design and Sampling

This study used a cross-sectional design. To enable analysis at the individual level, data were collected at the individual level using self-report questionnaires. Individual identification numbers were used in order to identify employees within the same team and to enable selection for the second stage of the research.

The database from which the sample was drawn is managed by Post Office consulting. The department is responsible for the cleaning and maintenance of the employee database. The database contains all employees who are directly employed by Post Office Ltd. i.e. those employees working in Post Office franchises are not included in the sample. The response rate usually obtained for internal Post Office surveys is between 35-50%. It was estimated that a sample of 700 would yield sufficient responses to enable the planned analysis to be carried out. A stratified random sample of UK based Area Managers, Branch Managers and Post Office Counter staff working across all regions was made from the central database.

A survey was compiled in order to address the research questions posed, to assess the suitability of the questionnaire a pilot study was carried out. The sample were randomly assigned numbers between 1 and 700. 30 random numbers were then generated and the corresponding individuals selected from the database and sent the questionnaire and a covering letter explaining the purpose of the study. Respondents were asked to return the questionnaire and to provide a contact telephone number so that feedback could be obtained. 15 people responded to the pilot study. Following feedback the questionnaire was amended to address the comments received. The most common feedback was that the questionnaire was too long. Other comments involved layout issues, which were resolved with changes to font size and spacing.

The survey mailing took place on the 09/04/01. Envelopes were addressed to individuals and stamped with "confidential". The envelopes contained a covering letter that provided information about the research and it's endorsement by the Personnel Director of the Post Office Ltd., the questionnaire and a pre-addressed freepost reply envelope. Respondents were given three weeks in which to return the surveys. A reminder mail shot was sent after two weeks. The reminder informed the individual about the research, requesting them to respond promptly and stated that if they had failed to receive the original questionnaire a new pack could be requested, and a contact number provided. Appendix 3, page 356 contains all correspondences and the questionnaire for study one.

The Questionnaire

The questionnaire consisted of four sections. Section one included questions about demographics, work role and team. Section two included questions on work characteristics, and the measures of organisational commitment and job satisfaction. Section three included questions on relationships at work: social support types and source. Section four contained the well-being measure.

Measures [1]

This section describes the measures used in order to address the research questions. Team membership will be followed by work characteristics measures, social support measures and well-being variables. Many of the measures have been used within the NHS studies (Borrill et al., 1996, 1998, 2000; Carter, 2000). The reliability values for the measures obtained in this study will be compared with the values obtained in the NHS research to provide a consistent benchmarking source.

Team Membership

Seven questions were asked about the respondent's team. The first five questions are a categorical index developed by Carter (2000). These questions were used to determine whether participants worked in a team, quasi team or non-team.

The questions are based on the defined characteristics of a formal team (see Alderfer, 1977; Goodman, 1986; Guzzo & Shea, 1992; Guzzo, 1996; Hackman, 1988; West 1996). Participants would respond yes/no and from the response to these questions participants could be assigned to one of three groups: team, quasi team or non-team. If participants responded no to the first question "Do you work as part of a clearly defined team?" they were categorised as working in a non-team, if they responded yes to the first question and no to any of the subsequent questions they are categorised as a quasi team member. To qualify for the team member category the respondent must answer yes to all five questions.

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[1] All values are derived from the full data set with the exception of social support items relating to colleague support which has data missing, this is the case unless otherwise stated

The measure items are as follows:

1. Do you work as part of a clearly defined team?
2. Does your team have clear objectives?
3. Do you frequently work with other team members to achieve these objectives?
4. Are there different roles for team members within this team?
5. Is your team recognised by others in the business unit as a clearly defined team?

This measure has been used extensively in studies within the NHS over the past two years; participants number in excess of 50,000.

Questions six and seven asked about how long the respondent had worked in the team and the number of other team members. These questions were included to gain a more detailed understanding of team composition within Post Office Ltd.

Work Stressor Measures

To maintain consistency for comparison purposes the same work stressor scales were employed as those used in the NHS studies. Previous research exploring job characteristics have identified autonomy and control, influence, feedback, role stressors (clarity and conflict), and sources of social support as factors of work design that influence employee behaviour and attitudes (Hackman & Oldham, 1975; Karasek, 1979; Karasek & Thorell, 1990). In health care, work demands also shown to be a major source of strain (Borrill et al., 1996). The scales have been selected on the basis of their suitability to cover intrinsic dimensions of work design and to gain consistency across samples. The origins and rationale for scale suitability will be described.

Autonomy and Control

Autonomy and control encompasses two aspects of independence in a job. Autonomy is the extent to which the job provides a degree of freedom and discretion in task scheduling and procedures employed to complete the tasks. Control is related to the individual's opportunities to choose the work they do and whether they can be flexible in how they carry out the work. Karasek's (1979) theory suggests that ill health results when individuals

experience high demands and little autonomy. Research conducted in a variety of organisation types/contexts has supported the relationship between autonomy and well-being (e.g. Daniels & Guppy, 1994). The scale is based on a measure of Method Control (Jackson, Wall, Martin & Davids, 1993). Developed using employees in manufacturing companies, the scale assesses the extent to which individuals are able to schedule their work and exercise control over the procedures they use. The scale consists of six items, with five possible responses ranging from "not at all" to "a great deal". An example item is "to what extent to you determine the methods and procedures you use in your work?" The coefficient alpha for this study sample was 0.89; this is the same value that Carter (2000) obtained.

Work Demands

Work demands are the extent to which an individual has the resources and time in which to carry out their work properly. The scale is based on Caplan's (1971) measure of subjective quantitative workload, which stemmed from the research of Kahn, Wolfe Quinn, Snoek and Rosenthal (1964). The measure has been used across diverse work environments, from university faculty (Caplan and Jones, 1975) to health care settings (Agius et al., 1996; Borrill et al., 2000; Landeweerd & Boumans, 1994). The scale consists of six items, with five possible responses ranging from "not at all" to "a great deal". An example of a scale item is: "I never finish work feeling that I have completed everything I should". The coefficient alpha for this study sample was 0.90, this compares favourably to the reliability of 0.91 obtained by Carter (2000).

Role Clarity

Role clarity measures the extent to which individuals are clear about the requirements of their work role. As discussed in chapter three, lack of clarity regarding one's role can lead to increased tension, job dissatisfaction and reduced productivity. This measure is based on Rizzo, House and Lirtzman's (1970) role ambiguity scale. One item from the scale was removed as the concept was explored elsewhere, this did not affect the reliability of the scale. Thus, role clarity was measured with a five item scale, with five possible responses ranging from "not at all" to "a great deal". Participants were asked to rate how true statements were of their job, for example "I have clear, planned goals and objectives for my

job". The coefficient alpha for this study sample was 0.84; again this is the same value of reliability which Carter (2000) reported.

Role Conflict

Role conflict is the extent to which individuals receive conflicting messages or instructions from people at work. This four item scale is based on Rizzo et al., (1970); it has been reduced to focus on the extent to which individuals receive conflicting instructions from others regarding their own work requirements. The development of the role clarity and role conflict measures are based on a sample of 290 technical and managerial staff; the measures have since been used in a variety of contexts (e.g. Aldag & Brief, 1977; Kelloway & Barling, 1990; Smith, Tisak & Schmieder, 1993). Role conflict was assessed using a four item scale, with five possible responses ranging from "not at all" to "a great deal". Respondents were asked to rate how true the statements were of their experience at work, for example "I receive conflicting instructions from two or more people". The coefficient alpha for this study sample was 0.82; this is slightly lower than the 0.86 reliability value that Carter (2000) reported.

Feedback

Feedback is the extent to which individuals receive information about the effectiveness of their performance. It is a core job dimension which influences outcomes such as motivation, performance and satisfaction. The scale is based on a sub-scale of the job diagnostics survey (Hackman & Oldham, 1975) that explores individual's understanding of their own work performance and that of others' perceptions of feedback. Responses to this four item scale could range from "strongly agree" to "strongly disagree". An example of an item is "I often have trouble figuring out whether I'm doing well or poorly at this job" (this statement is reversed scored). The coefficient alpha for this study sample was 0.80, comparing favourably to the 0.71 reported by Hackman and Oldham (1975) and only slightly lower than the 0.81 reported by Carter (2000).

Influence

Influence at work refers to the extent to which individuals perceive they are consulted with regards to work related decisions. The scale is adapted from a measure of participation (Vroom, 1960). The scale has been used extensively in health care and manufacturing settings (e.g. Borrill et al., 1996, 1998; Ruh, While & Wood, 1975). Influence was assessed using a four item scale, with five possible responses ranging from "not at all" to "a great deal". Participants were asked to rate how true statements were of their job, for example "Are you allowed to participate in decisions which affect you?" The coefficient alpha for this study sample was 0.80, this is slightly lower that the reliability of 0.86 obtained by Carter (2000).

Job Security

Job security reflects the extent to which the employee feels that they will not be made redundant and will remain in their jobs for the foreseeable future. Job security was included in this survey as the Post Office had been going through a period of rapid change and downsizing and requested the inclusion of the measure. O'Driscoll and Cooper (1996) suggest that job insecurity may be one of the single most pronounced sources of stress for employees today.

Job security was assessed using a five item scale, with five possible responses, ranging from "strongly agree" to "strongly disagree". Participants were asked to rate how strongly they agreed with the item statements, for example "if redundancies were announced, I think I would be selected to leave" (this statement is reversed scored). The coefficient alpha for this study sample was 0.61. Although the reliability of this scale is below the accepted 0.7, it is within the parameters suggested by Nunnally and Bernstein (1994); additionally, the scale is a recognised and validated measure with good reliability. It will therefore be retained in the subsequent analysis.

Confirmatory Factor Analysis of the Work Stressors

Although all the measures used to assess the various dimensions of work stressors have been validated and used extensively in health care settings, they had not been used in a Postal

setting. Therefore confirmatory factor analysis (CFA) was carried out to ensure that the scales were factorally distinct. This analysis was carried out using the AMOS application. Results from CFA will consist of the chi-squared, degrees of freedom and probability level. In addition, as the Chi-squared is effected by discrepancies in multivariate normality and sample size (Williams, Ford & Nyugen, 2002), values for three other fit indices will be presented; the comparative fit index, the Tucker Lewis Index and the root mean square error of approximation. The comparative fit index (CFI, Bentler, 1990) can range from 0.0 to 1.0. The criteria for a good fit is 0.90 (Williams, Ford & Nyugen, 2002). The Tucker Lewis Index is also a popular index of fit, ranging between 0.0 and 1.0, where values of 0.9 and above represent a good fit. Williams, Ford and Nyugen (2002) also recommend the root mean square error of approximation (RMSEA). Values of .05 and below indicate a very good fit, while .08 represents a good fit.

Table 8.01. The fit index for work stressors

	Work Stressors
Chi-squared	1213.297
Degrees of freedom	506
Probability level	0.000
CFI	0.974
RMSEA	0.068
TLI	0.970

The CFI and TLI values are above 0.90 and therefore indicate a good fit, while a RMSEA of 0.08 and below also indicates a good fit. These figures support previous work using this battery of scales; they are factorally distinct and therefore valid for use in further analysis.

Figure 8.02. Confirmatory factor analysis: Work stressors
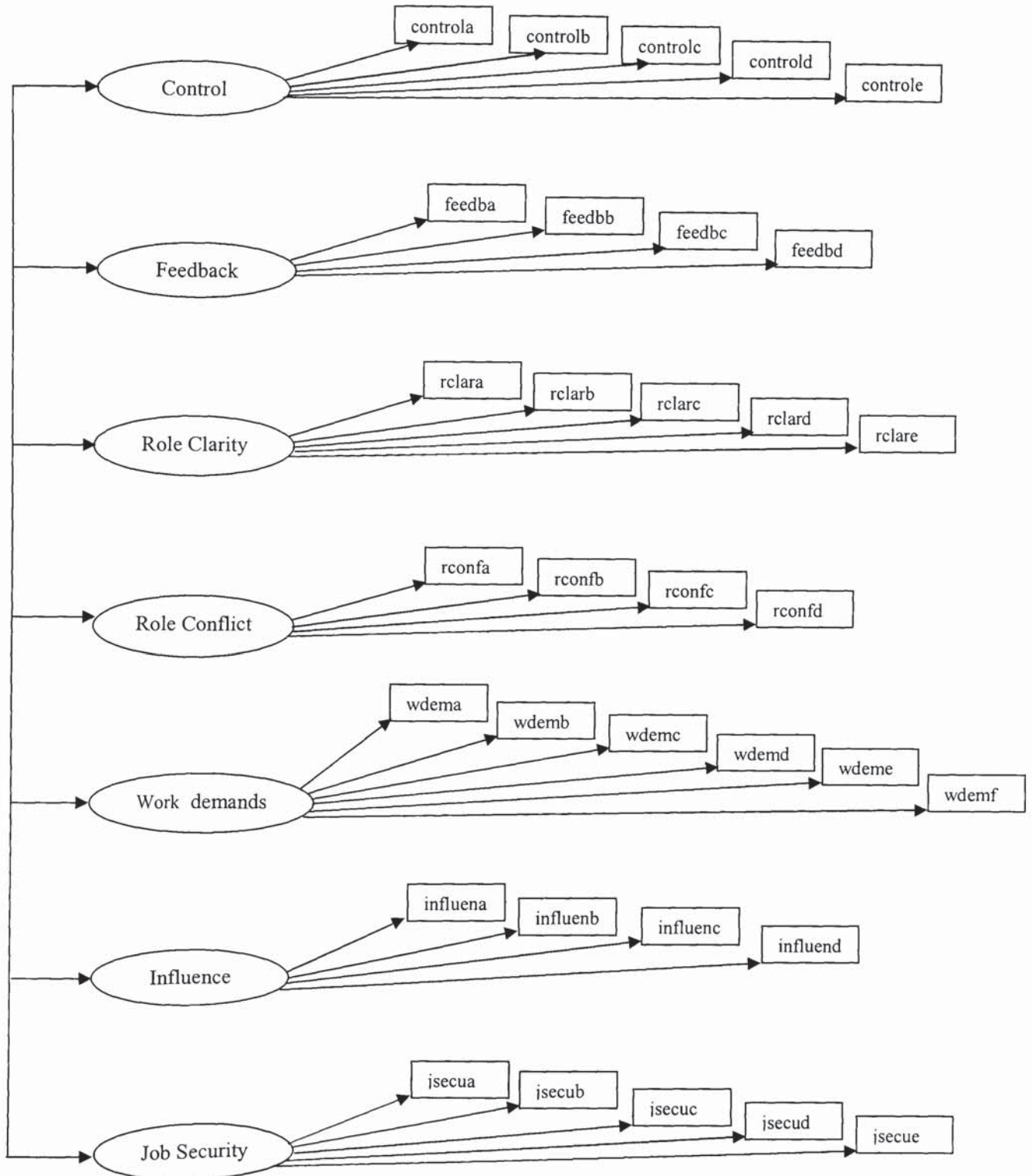
The Social Support Survey

The Social Support Survey (Rosenfeld & Richman, 1987) was chosen as it fulfilled the selection criteria. While specificity in support measurement is recognised as a key criteria, the scale also needed to meet the following requirements: assess perceived support, distinguish between sources at work and relate to support at work functions. It was also important to use an existing measure as criticism has been made of the use of study specific scales for assessing support as knowledge advancement is hampered as comparisons cannot be made. An advantage of this measure is that it was developed for work place use and is therefore relevant in context, contrasting with many other support scales reviewed. However, some tailoring of this measure was required. Due to the intrusive nature of the first question, which asked for names of support providers, this was removed. It was thought that it may cause concern for respondents and possibly result in a lower response rate. The questions therefore asked about support from three specific sources; manager, team members and colleagues. The number of support types was also reduced as there was overlap between the instrumental support types (see below). The ordering of the support types was also amended, so that work related support functions, such as task appreciation appeared first as to increase the face validity of the measure. These adaptations were carried out with the consent and approval of Professors Rosenfeld and Richman (2000).

The scale assessed perceived support and satisfaction with seven types of support: task appreciation; task challenge, reality confirmation, practical assistance, emotional support, emotional challenge, and listening support. Task appreciation and challenge, reality check, emotional support and challenge, and listening support are types derived from Pines et al.,'s (1981) work on burnout. Rosenfeld and Richman (1987) added tangible assistance and personal assistance. For the purpose of this research it was decided to reduce assistance to one type: practical assistance, which encompasses all types of tangible help. Perceived support and satisfaction with these support types was assessed from three sources: the individual's manager, their team members and other colleagues exterior to the team. The adjusted measure assessed support from three sources, perceived amount and satisfaction with seven types of support.

Definitions of the support types are as follows:

- **Task Appreciation (TA):** People who acknowledge your efforts and express appreciation for the work you do

- **Task Challenge (TC):** people who challenge your way of thinking about your work in order to stretch you, and lead you to greater creativity, enthusiasm and involvement in your work

- **Practical Assistance (PA):** people who provide you with practical assistance, such as pitching in to help you do something that needed to be done

- **Reality Check (RC):** people who are similar to you – see things the way you do – who help you confirm your perceptions and perspectives of the world and help you keep things in focus

- **Emotional Support (ES):** people who comfort you and indicate that they are on your side and care for you

- **Emotional Challenge (EC):** people who encourage you to re-evaluate your attitudes, values and feelings

- **Listening Support (LS):** people who listen to you with interest and understanding: who let you talk/let off steam without giving advice or being judgmental

For pragmatic reasons the abbreviations detailed above will be used in the results section when presenting tables. The term "sat" will also be used as an abbreviation for satisfaction when referring to satisfaction with a support source or type, again this is for pragmatic reasons.

The individual items of the social support scale were aggregated to form subscales on amount and satisfaction with each source and each type of support. This involved the repeated use of items to construct and source and type subscales.

Table 8.02. Reliabilities of social support source:Amount and satisfaction

Source of support	Alpha	Source of support	Alpha
Manager support amount	.93	Manager support satisfaction	.95
Team support amount	.92	Team support satisfaction	.93
Colleague support amount	.92	Colleague support satisfaction	.93

Table 8.03. Reliabilities of social support type: Amount and satisfaction

Type of support	Alpha	Type of support	Alpha
Task appreciation amount	.65	Task appreciation satisfaction	.64
Task challenge amount	.70	Task challenge satisfaction	.66
Practical assistance amount	.65	Practical assistance satisfaction	.62
Reality confirmation amount	.64	Reality check satisfaction	.64
Emotional support amount	.64	Emotional support satisfaction	.69
Emotional challenge amount	.69	Emotional challenge satisfaction	.67
Listening support amount	.62	Listening support satisfaction	.63

The reliability of support items assessing support from the three sources is good. The reliability of the aggregated types of support is, as expected low. The type of support from the three sources is aggregated, it is expected that the types of support will vary considerably between source in their provision and satisfaction. An alternative explanation is that people are better able to distinguish where support is coming from (source) rather than the specifics of what they receive (type).

Satisfaction with support will be used in the analysis rather than considering the amount, as satisfaction with support is proposed that have a greater impact on the individual than the amount of support they receive (McIntosh, 1991). Questions about the amount of support were asked to enable the relationship between amount and satisfaction to be considered. In addition it is possible that by first addressing the amount of the support type or source the respondent's thought processes are then engaged as to the particular type/source of support enabling them to respond more accurately about how satisfied they are with the support they receive.

Multicollinearity Testing

As the aggregated scales in the measure involve the overlap of items, multicollinearity was assessed. Firstly correlations were carried out to explore the extent of the relationships between the subscales. Regressions were then carried out to further investigate the extent of the relationships.

Correlations

Maruyama (1998) suggests several methods to detect multicollinearity, one of these is when correlation coefficients are greater than 0.8. From the correlation matrix displayed overleaf (table 8.04.), it can be seen that most of the subscales are significantly associated at the 0.01 probability level. The strongest relationships appear between satisfaction with types of support, these range between 0.61 and 0.77. Satisfaction with practical assistance is associated with satisfaction with reality check at 0.77. The relationships between satisfaction with the sources of support are less strong, 0.029 to 0.48. Although these coefficients are not actually above the 0.80 cut off, due to the strength of the associations between the types of support it was decided further confirmation was required to ensure that data is not redundant.

Regression

As the variables are highly correlated, it is necessary to examine the extent of redundant information. When redundancy is too high, estimation problems in the regressions result. Maruyama (1998) further suggests considering the Variance Inflation Factor (VIF) value when detecting multicollinearity; thus when the VIF is greater than 0.7 multicollinearity is an issue. The VIF indicates the effect of the predictor variables on a regression coefficient. This value is inversely related to the tolerance value. Hair, Anderson, Tatham, & Black (1998) suggest that a large VIF (10.00) indicates a high degree of multicollinearity and therefore a tolerance level of 0.10 and below also indicates multicollinearity. Although the correlation coefficients were not above 0.8, they were still high, further analysis was carried out to explore information redundancy. The following two-step process proposed by Hair, Anderson, Tatham, and Black (1998) was carried out. First the condition index is examined, if this is above 30, the regression coefficient variance-decomposition matrix is consulted. When the condition index is 30 or greater and the threshold value accounts for 0.90 or above of the variance for two or more coefficients then multicollinearity is an issue.

The regressions were carried out on the type of support as the correlation coefficients indicated the strong associations. The following multicollinearity regressions use the aggregated satisfaction with support variables. Amount and satisfaction have not been put

Table 8.04. Intercorrelations for satisfaction with social support: Source and type (n=169 after listwise deletion)

Variables	1	2	3	4	5	6	7	8	9
1. Satisfaction with Manager Support	1								
2. Satisfaction with Team Support	0.34**	1							
3. Satisfaction with Colleague Support	0.29**	0.48**	1						
4. Satisfaction with Task Appreciation	0.66**	0.62**	0.60**	1					
5. Satisfaction with Task Challenge	0.67**	0.64**	0.62**	0.72**	1				
6. Satisfaction with Practical Assistance	0.64**	0.69**	0.64**	0.74**	0.72**	1			
7. Satisfaction with Reality Check	0.63**	0.67**	0.66**	0.64**	0.68**	0.77**	1		
8. Satisfaction with Emotional Support	0.64**	0.67**	0.69**	0.66**	0.65**	0.68**	0.74**	1	
9. Satisfaction with Emotional Challenge	0.62**	0.69**	0.65**	0.62**	0.69**	0.64**	0.72**	0.74**	1
10. Satisfaction with Listening Support	0.61**	0.63**	0.62**	0.59**	0.61**	0.60**	0.61**	0.73**	0.71**

** Correlation is significant at the 0.01 level (2-tailed).

into the same regressions to test for multicollinearity as amount of support will not be used in further analysis. The tables presented show the data from the point where the condition index is close to the 30 cut off. The R^2, and VIE and Tolerance ranges are provided.

Table 8.05. DV = task appreciation satisfaction, IVs= task challenge, practical assistance, reality check, emotional support, emotional challenge and listening support

Dimension	Condition index	Sat TC	Sat PA	Sat RC	Sat ES	Sat EC	Sat LS
6	25.032	.25	.11	.03	.57	.35	.04
7	30.875	.03	.43	.83	.10	.15	.09

R^2	.642
VIF range	2.644 to 3.699
Tolerance range	.270 to .378

Table 8.06. DV = task challenge satisfaction, IVs= task appreciation, practical assistance, reality check, emotional support, emotional challenge and listening support

Dimension	Condition index	Sat TA	Sat PA	Sat RC	Sat ES	Sat EC	Sat LS
6	24.674	.37	.19	.07	.01	.43	.27
7	32.018	.17	.56	.75	.13	.07	.05

R^2	.662
VIF range	2.562 to 3.671
Tolerance range	.272 to .390

Table 8.07. DV = practical assistance satisfaction, IVs= task appreciation, task challenge, reality check, emotional support, emotional challenge and listening support

Dimension	Condition index	Sat TA	Sat TC	Sat RC	Sat ES	Sat EC	Sat LS
6	26.161	.37	.34	.03	.10	.62	.04
7	27.710	.01	.07	.71	.46	.05	.20

R^2	.730
VIF range	2.424 to 3.515
Tolerance range	.285 to .413

Table 8.08. DV = reality check satisfaction, IVs= task appreciation, task challenge, practical

assistance, emotional support, emotional challenge and listening support

Dimension	Condition index	Sat TA	Sat TC	Sat PA	Sat ES	Sat EC	Sat LS
6	24.997	.16	.16	.68	.24	.14	.02
7	26.416	.58	.23	.11	.15	.42	.01

R^2	.730
VIF range	2.646 to 3.212
Tolerance range	.311 to .378

Table 8.09. DV = emotional support satisfaction, IVs= task appreciation, task challenge,

practical assistance, reality check, emotional challenge and listening support

Dimension	Condition index	Sat TA	Sat TC	Sat PA	Sat RC	Sat EC	Sat LS
6	25.763	.47	.27	.06	.02	.48	.17
7	31.023	.12	.00	.65	.71	.17	.01

R^2	.716
VIF range	2.331 to 3.700
Tolerance range	.270 to .429

Table 8.10. DV = emotional challenge satisfaction, IVs= task appreciation, task challenge,

practical assistance, reality check, emotional support and listening support

Dimension	Condition index	Sat TA	Sat TC	Sat PA	Sat RC	Sat ES	Sat LS
6	24.229	.08	.06	.30	.03	.50	.34
7	31.628	.22	.02	.53	.71	.21	.03

R^2	.691
VIF range	2.406 to 3.699
Tolerance range	.270 to .416

Table 8.11. DV = listening support satisfaction, IVs= task appreciation, task challenge,

practical assistance, reality check, emotional support and emotional challenge

Dimension	Condition index	Sat TA	Sat TC	Sat PA	Sat RC	Sat ES	Sat EC
6	26.078	.25	.38	.02	.02	.27	.59
7	31.578	.20	.00	.59	.74	.09	.03

R^2	.623
VIF range	2.782 to 3.694
Tolerance range	.271 to .359

The above regressions present condition indexes that are above 30, however none of the threshold values are above 0.90, and the VIF and tolerance ranges are within the appropriate boundaries to suggest while all of the above types of support, although relatively strongly related are not multicollinear. Therefore satisfaction with social support types may be entered into the same regression calculation. Satisfaction with sources of support can also be entered into the same regression calculation. Satisfaction with source and type will not be entered together due to item overlap.

Factor Analysis of Social Support Scale

The social support survey had not been used in its current format previous to this study. Confirmatory Factor Analysis was carried out, as when the scale items are aggregated there maybe issues of interdependence and collinearity; and to ensure that the aggregated subscales are factorally distinct. Two factor analyses were carried out, one for source of support, satisfaction and amount; and one for type of support, satisfaction and amount.

Table 8.12. The fit index for source of support

	Source of Support
Chi-squared	4166.312
Degrees of freedom	809
Probability level	0.000
CFI	0.919
RMSEA	0.118
TLI	0.910

Both the CFI and TLI are above 0.90 indicating a good fit using these indices, thus supporting the model, however the RMSEA is a little high, suggesting that there may be a better fit. Items were confirmed to load onto the expected factors.

Figure 8.03. Confirmatory factor analysis: Social support source
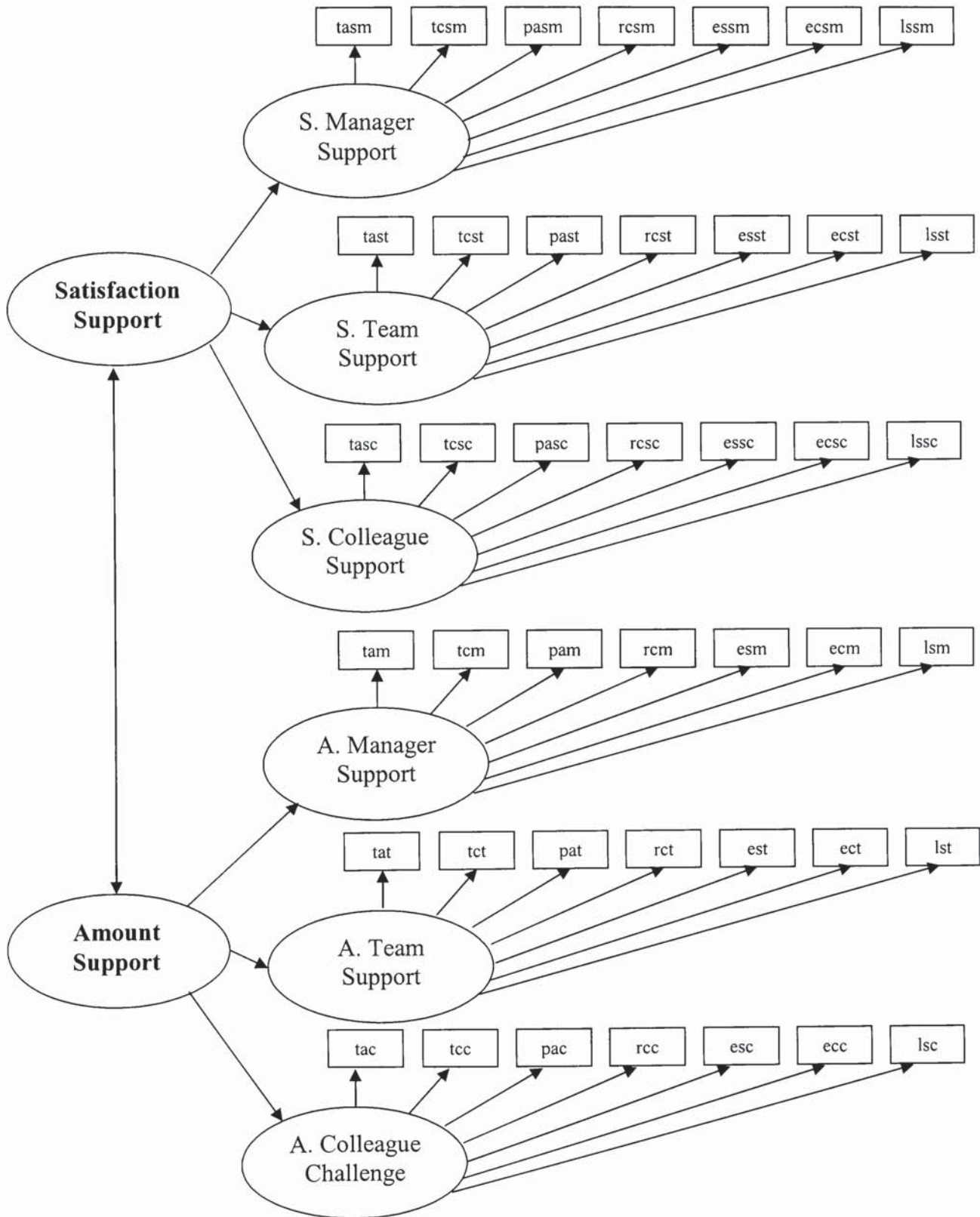
Table 8.13. The fit index for type of support

	Type of Support
Chi-squared	8880.063
Degrees of freedom	797
Probability level	0.000
CFI	0.806
RMSEA	0.184
TLI	0.780

The CFI and TLI are slightly below the 0.9 cut off for a model with good fit. The RMSEA is also relatively high, suggesting a less than good fit. When loadings between variables were altered, removing the weaker associations, the change in the CFI index was minimal thus suggesting that this is the best fit for the variables. The detail can be found in Appendix 4, on page 368.

Again, this supports the earlier proposed argument that source of support is more readily recognised by the respondents. This is intuitive; people are better able to discriminate who support comes from, rather than what they are provided with.

Well-being Measures

Well-being

Well-being and health vary in their definition depending on the theoretical and empirical perspective. For the purpose of this thesis, well-being will be conceptualised in terms of Warr's (1990) affective well-being, which is viewed as one of the five components of mental health. Affective well-being was discussed in detail in chapter four. A well-being measure constructed by West (Borrill et al., 2003), which is designed to assess three dimensions of well-being: positive and negative affect, and physical health was used in the study. The scale consisted of 25 items, with a five stem response ranging from "not at all" to "almost all of the time". An example of an item is "I have felt positive". The coefficient alpha for this study sample was 0.95.

Figure 8.04. Confirmatory factor analysis: Social support type
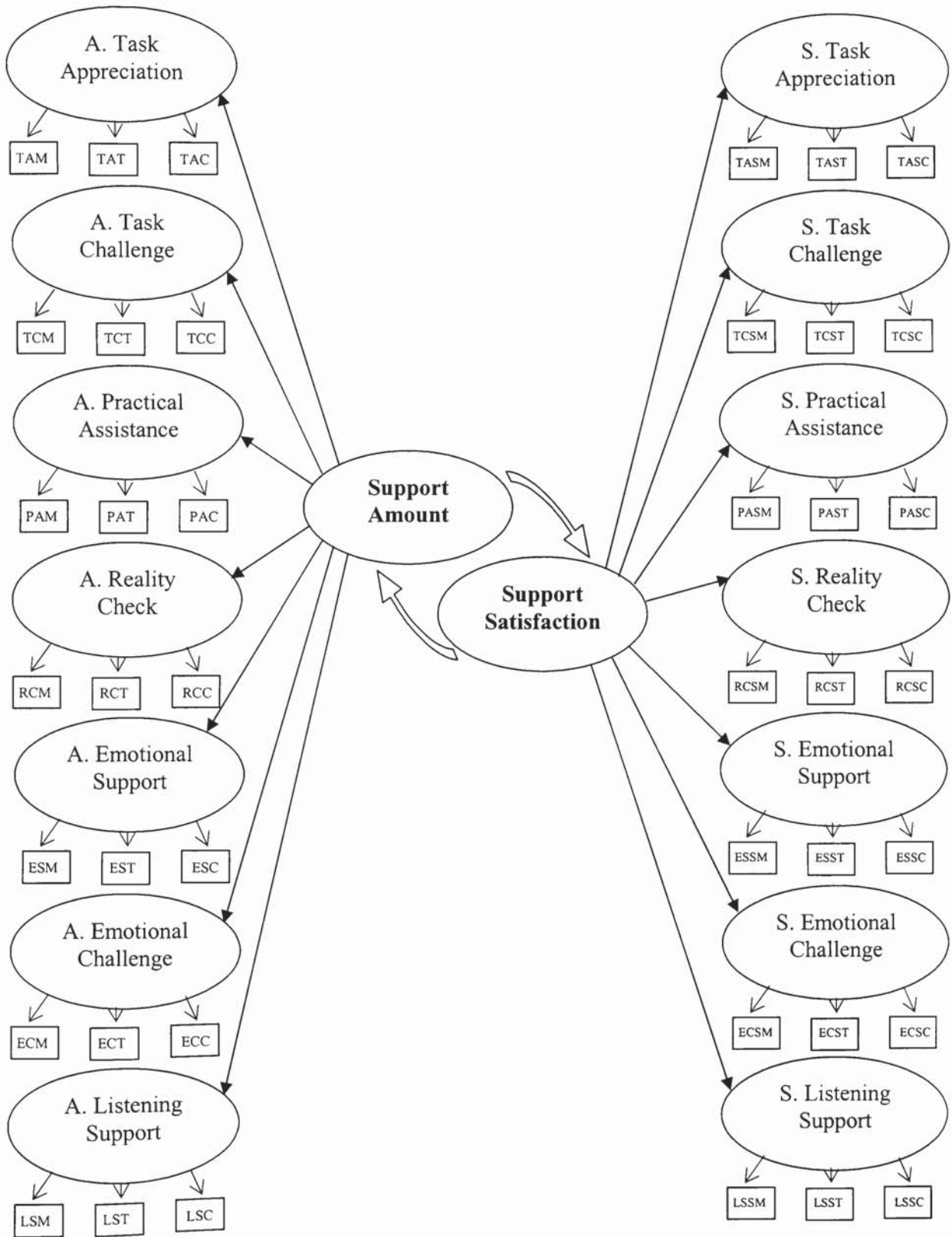
Organisational Commitment

Organisational commitment refers to the employee's feelings of obligation to remain with the organisation. The scale was developed by Cook and Wall (1980), and assessed three aspects of commitment: identification with the organisation, loyalty to the organisation and involvement.

The scale consists of six items, with five possible responses ranging from "strongly agree" to "strongly disagree". An example item is, "I'm not willing to put myself out just to help my business unit", (revered scored). The coefficient alpha for this study sample was 0.66. Although the reliability of this scale is below the accepted 0.7, it is not greatly less; additionally is a recognised and validated measure with good reliability, utilised in a range of contexts, it will therefore be retained in the subsequent analysis.

Job Satisfaction

Job satisfaction is the extent to which an employee is content with their work, work place and colleagues. Spector's (1985) Job Satisfaction Survey was used in this study. This measure "takes the theoretical position that job satisfaction represents an affective of attitudinal reaction to the job" (Spector, 1985:694). The scale is able to provide a more in-depth understanding of job satisfaction as it contains nine subscales, rather than other measures which focus on intrinsic and extrinsic satisfaction. The nine facet subscales, each assessed by four items each are: satisfaction with pay, promotional opportunities, fringe benefits, contingent rewards, supervision, co-workers, nature of work itself, communication and work conditions. The measure uses the summated rating scale format with six agree-disagree response possibilities: ranging from "disagree very much" to "agree very much" and scored 1-6 respectively. An example item is "I do not feel that the work I do is appreciated" (reverse scored). The coefficient alpha for this study sample was 0.91.

Demographic Data

The following demographic data was collected: sex, age, marital status, education, nationality and ethnic background. Information about the job relating to where the employee is located, occupational level, length of time in current role and organisation, type

of contract, contracted hours and hours over the contract the worker did per week was also collected.

Hypotheses

The following hypotheses are derived from the research questions, which address the gaps and limitations identified in the literature review. The hypotheses are derived from the theoretical model, and reflect the relationships proposed in this model.

Direct relationships

Hypothesis 1

People who work in a team will report greater well-being than those who do not work in a team.

Hypothesis 2

People who work in a team will report less role conflict and work demands; and greater role clarity, job security, feedback control and influence than those who do not work in a team.

Hypothesis 3

a. People who work in a team will report greater satisfaction with all types of support from managers, and team members than those people who do not work in a team.

b. There will be no difference in satisfaction with support types from colleagues between people who work in a team and those who do not work in a team.

Hypothesis 4

a. People who work in a team will report greater satisfaction with manager support and team member support than those who do not work in a team.

b. There will be no difference in satisfaction with support from colleagues between people who work in a team and those who do not work in a team.

c. People who work in a team will report greater satisfaction with all types of support than those people who do not work in a team.

Mediated relationships

Hypothesis 5

The relationship between working in a team and well-being outcomes will be mediated by satisfaction with social support source and satisfaction with social support type.

Hypothesis 6

The relationship between working in a team and work stressors will be mediated by satisfaction with social support source and satisfaction with social support type.

Hypothesis 7

The relationship between satisfaction with social support source, and type and well-being outcomes will be mediated by work stressors.

Chapter Summary

The preceding chapter has detailed the method of the first study reported in this thesis. The research questions and theoretical model were presented, followed by description of the study design, including sampling and questionnaire detail. The measures used in this study were then described and the reliabilities obtained stated. Where necessary, confirmatory factor analysis were performed and tests for multicollinearity. Finally the hypotheses were presented.

The following chapter provides the results of the study, using correlation, ANOVA and hierarchical regression analyses to address the hypotheses proposed in this chapter.

The value at which an alpha for accepting the internal reliability of a scale is contentious. Cronbach recommends a value of 0.8 or above, Tabachnik & Fidell (1996) describe alpha values of 0.7 or above as acceptable, while Nunnally & Bernstein (1994) describe alpha values of 0.6 or above as acceptable. The range of alpha coefficients in this study are 0.62 to 0.94.

Chapter 9

Study 1: Team work and well-being: The role of social support

Results

Chapter Overview

The following chapter describes the results from the first study, and discusses these in relation to existing theoretical and empirical knowledge. Firstly the demographics of the sample are presented, followed by considerations of the extent of team working. Following the presentation of the variable descriptives, the preliminary analysis will be described. The hypotheses are then addressed in turn, using the statistical techniques of Analysis of Variance (ANOVA) and multiple regression. The discussion includes consideration of future research and limitations of this study.

The Study Sample

670 Post Office staff were sent the survey. There were 360 responses, a response rate of 53.7%. Individuals who did not work in a team or a quasi team were removed from the analysis. The sample then consisted of 323 Post Office employees, 113 (35%) are Area Managers, 128 (39.6%) Branch Managers and 82 (25.4%) Post Office Counter staff.

In terms of the demographic variables of the sample 50% are male and 50% female. 77.7% are married or live with a partner, 12.1% are single while 9.9% are separated, divorced or widowed. 77.7% of the sample are British. Ethnic backgrounds are as follows: 90% are White, 3.4% are Indian, 1.5% are Bangladeshi, 0.3% are Black African, 0.3% are Black Caribbean, and 0.9% are "other". The mean age of respondents is 43 (42.82) (SD = 7.90, range = 22 to 59 years).

The mean time spent working for Post Office Ltd. is 17.83 years, (SD = 8.59, Range = 8 months to 39 years). The mean time spent working in the current role is 6.78 years, (SD = 5.33, Range= 3 months to 29 years). The average contract is for 38.61 hours per week (SD = 7.29, Range = 9 to 43 hours); on average staff work 2.96 hours over this a week (SD = 1.25, Range = 0 to 8 hours). The mean size of a team is 13 (13.23) (SD = 7.43, Range = 2 to

50). The mean time spent working in the same team is 4.79 years (SD = 4.28, Range = 3 months to 26 years).

Team Working

Analysis of the responses to explore the proportion of the sample who work in a team and a quasi team revealed that 204 (63.2%) Post Office Ltd. employees work in a well-defined team, while the remaining 119 (36.8%) work in a quasi team. The demographic characteristics for those employees who work in a team and a quasi team are not significantly different.

These figures are not dissimilar to those found in the NHS using the same categorisation index (Carter, 2000), in which 56.9% of employees reported to work in teams, 30.6% in quasi teams and the remaining 12.5% in non-teams.

Team Working and Task

Most Branch Managers reported that they work in a team, followed by Area Managers and then Post Office Counter staff in which the split is almost 50/50.

Table 9.01. Frequency and percent of study sample staff by team/quasi team distinction

	Area Manager		Branch Manager		PO Counter	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Team	69	61.1	92	71.9	43	52.4
Quasi Team	44	38.9	36	28.1	39	47.6
Total	113	100	128	100	82	100

Quasi Teams in Detail

A categorisation index was used to assess whether an individual was classified as working in a quasi team. The categories for team work were explored in greater detail. Characteristics of being in a well-defined team that were most often not met were: the existence of different roles within the team and working with others to achieve the team objectives. This is illustrated in the table overleaf.

Figure 9.01. Responses to the team categorisation index

Percentage of reponses to team questions
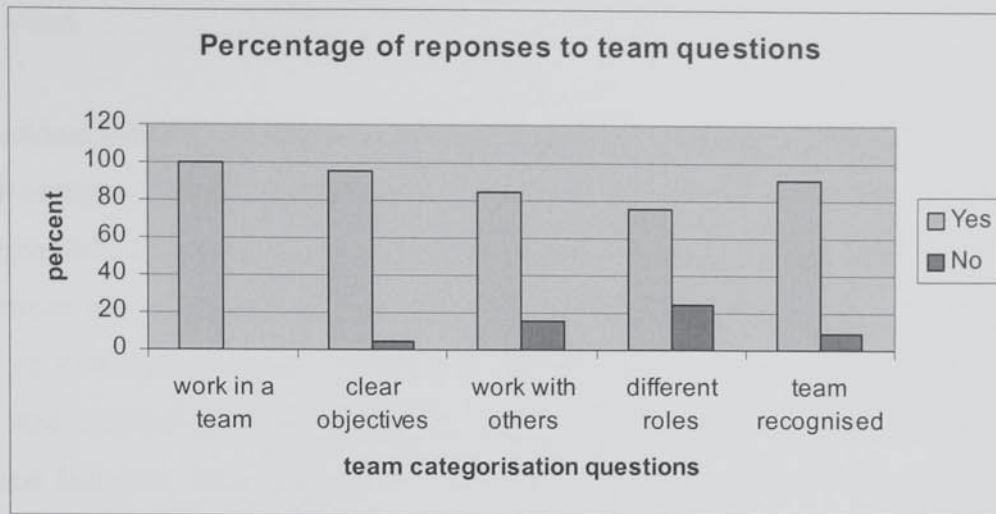
Variables

The following values quoted for scales are derived from the full data set. The well-being scales are followed by social support scales, then the work characteristic scales.

Job Satisfaction

The population reported levels of job satisfaction (mean = 3.571, SD =0.68, n =300). This is slightly lower than the scale norm data mean = 3.86 (Spector, 1985). The norm data is derived from health care professionals in the US. A reduced version of the measure was used in research within UK call centres, the mean = 3.86, SD = 0.33, n= approx 35000 (Fisher, 2002).

Well–being

This sample reported levels of well-being (mean = 3.357, SD = 0.682, n = 300). This is slightly less than UK employees working in the NHS (mean = 3.54, SD = .714, n = 2575) (Carter, 2000).

Organisational Commitment

The population reported levels of organisational commitment (mean = 3.479, SD = 0.611, n = 300). This is greater than the level of organisational commitment reported in the NHS study (mean=3.25, SD=.072, n=2,241) (Carter, 2000).

Social Support Amount and Satisfaction

The table displays the mean, standard deviation and sample size for the individual social support items.

The individual items of social support are not at a suitable data level to be used in regression and path analysis, this is due to the variable only consisting of 1 item; therefore the items were aggregated as follows: amount and satisfaction with the seven support types for the three sources was calculated to create amount of manager support, amount of team support, amount of colleague support, satisfaction with manager support, satisfaction with team support and satisfaction with colleague support. The types of social support were also aggregated from the three sources to create; amount of task appreciation, amount of task challenge, amount of practical assistance, amount of reality check, amount of emotional support, amount of emotional challenge, amount of listening support, satisfaction with task appreciation, satisfaction with task challenge, satisfaction with practical assistance, satisfaction with reality check, satisfaction with emotional support, satisfaction with emotional challenge, and satisfaction with listening support. The implications of this aggregation are discussed in chapter 8, page 136.

Analysis will focus on the satisfaction variables of support as empirically satisfaction with a source/type of support has a greater impact on the recipient than amount (Israel et al., 1989). This study confirms this finding. Both dimensions were measured so that comparisons could be made between the two.

The table illustrates the mean, standard deviation and sample size for the individual items of social support source and type.

Table 9.02. Social support amount and satisfaction: mean, SD and sample size

Source & Type of support: Amount	Mean	SD	N	Source & Type of support: Satisfaction	Mean	SD	N
Manager: Task appreciation amount	3.22	1.07	300	**Manager**: Task appreciation satisfaction	3.42	1.07	300
Team: Task appreciation amount	3.30	1.06	300	**Team**: Task appreciation satisfaction	3.63	0.92	300
Colleague: Task appreciation amount	2.79	1.14	284	**Colleague**: Task appreciation satisfaction	3.32	0.91	284
Manager: Task Challenge amount	2.94	1.13	300	**Manager**: Task Challenge satisfaction	3.26	1.07	300
Team: Task Challenge amount	2.71	1.08	300	**Team**: Task Challenge satisfaction	3.39	.93	300
Colleague: Task Challenge amount	2.19	1.07	284	**Colleague**: Task Challenge satisfaction	3.14	.89	284
Manager: Practical Assistance amount	2.68	1.18	300	**Manager**: Practical Assistance satisfaction	3.23	1.05	300
Team: Practical Assistance amount	3.41	1.00	300	**Team**: Practical Assistance satisfaction	3.64	0.91	300
Colleague: Practical Assistance amount	2.70	1.09	284	**Colleague**: Practical Assistance satisfaction	3.26	0.94	284
Manager: Reality check amount	2.89	1.08	300	**Manager**: Reality confirmation satisfaction	3.28	0.95	300
Team: Reality check amount	3.24	0.98	300	**Team**: Reality confirmation satisfaction	3.55	0.81	300
Colleague: Reality check amount	2.67	1.10	284	**Colleague**: Reality confirmation satisfaction	3.22	0.86	284
Manager: Emotional support amount	2.65	1.24	300	**Manager**: Emotional support satisfaction	3.17	1.11	300
Team: Emotional support amount	3.18	1.11	300	**Team**: Emotional support satisfaction	3.58	0.92	300
Colleague: Emotional support amount	2.61	1.25	284	**Colleague**: Emotional support satisfaction	3.26	0.95	284
Manager: Emotional challenge amount	2.71	1.14	300	**Manager**: Emotional challenge satisfaction	3.22	0.98	300
Team: Emotional challenge amount	2.66	1.11	300	**Team**: Emotional challenge satisfaction	3.35	0.90	300
Colleague: Emotional challenge amount	2.26	1.10	284	**Colleague**: Emotional challenge satisfaction	3.15	0.88	284
Manager: Listening support amount	2.64	1.24	300	**Manager**: Listening support satisfaction	3.15	1.10	300
Team: Listening support amount	3.13	1.18	300	**Team**: Listening support satisfaction	3.51	0.94	300
Colleague: Listening support amount	2.60	1.20	284	**Colleague**: Listening support satisfaction	3.29	0.92	284

The tables illustrate the mean, standard deviation and sample size for each aggregated measure of support.

Table 9.03. Source of support: mean, SD, sample size

Source of Support: Amount	Mean	SD	N	Source of Support: Satisfaction	Mean	SD	N
Manager support	2.82	.97	300	Manager support	3.25	.92	300
Team support	3.09	.88	300	Team support	3.52	.76	300
Colleague support	2.55	.94	284	Colleague support	3.23	.76	284

Table 9.04. Type of support: mean, SD, sample size

Type of Support: Amount	Mean	SD	N	Type of Support: Satisfaction	Mean	SD	N
Task Appreciation	3.11	.84	300	Task Appreciation	3.46	.71	300
Task Challenge	2.63	.87	300	Task Challenge	3.27	.76	300
Practical Assistance	2.94	.80	300	Practical Assistance	3.38	.74	300
Reality Check	2.95	.82	300	Reality Check	3.36	.66	300
Emotional Support	2.82	.92	300	Emotional Support	3.34	.79	300
Emotional Challenge	2.55	.89	300	Emotional Challenge	3.24	.71	300
Listening Support	2.79	.91	300	Listening Support	3.31	.76	300

Work Stressors

The table displays the mean, standard deviation and sample size for each work stressor.

Table 9.05. Work stressors: mean, SD, sample size

Work Stressors	Mean	SD	N
Autonomy and control	3.331	1.025	300
Feedback	3.739	0.630	300
Role clarity	3.859	0.695	300
Work demands	3.229	1.036	300
Role conflict	3.383	0.960	300
Influence	2.793	0.920	300
Job security	2.566	0.637	300

Analysis and Results

The following sections presenting the preliminary analysis and results, work towards testing the theoretical model, illustrated below. Sections of this model will be presented at appropriate stages during the results section to illustrate the relationships being tested.

Figure 9.02. The theoretical model
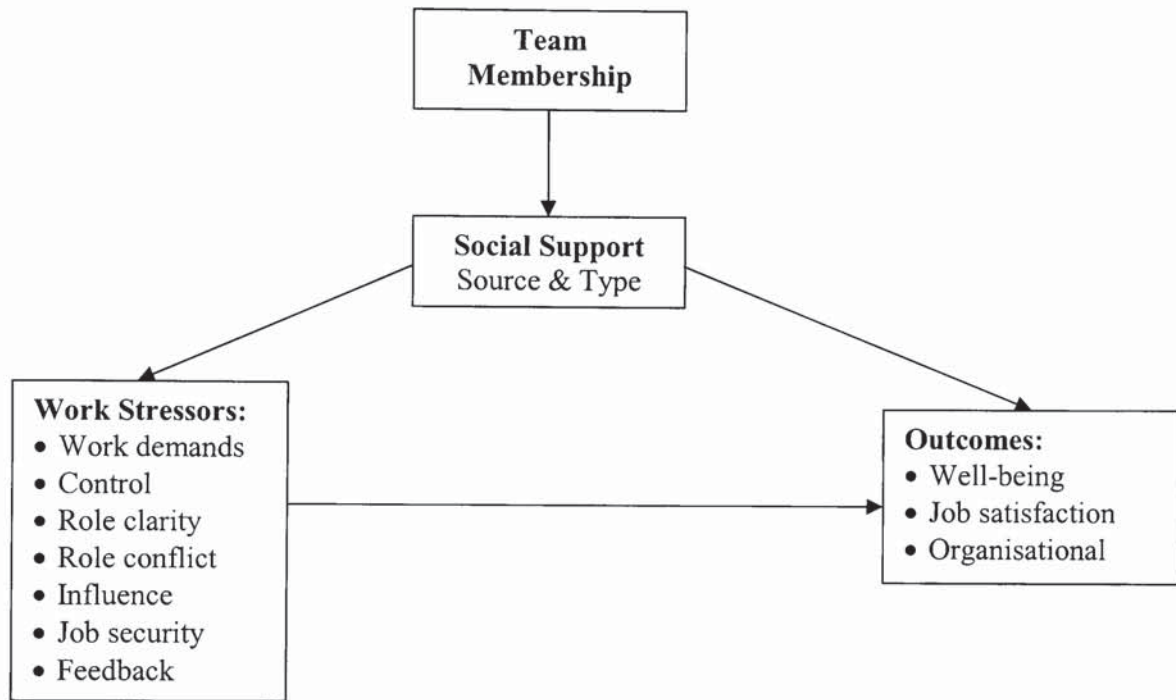
Preliminary Analysis

Prior to conducting the analysis to directly address the hypotheses, a series of preliminary analyses was conducted on the dataset. Cases with missing data were removed from the analysis, with the exception of variables involving colleague support as not all employees reported to have work colleagues. The data were then checked for outliers and normal distribution of data. Exploratory analysis involved carrying out correlations to inform the relationship strength and direction between variables. As this study is concerned with the differences between those working in teams and those working in quasi teams, correlations were carried out for the two groups. There is a Kendall's Tau correlation matrix and three Pearson's Product Moment correlation matrices, indicating the strength and direction of

relationship between pairs of variables. The first correlations show intrercorrelations between well-being outcomes and demographic variables followed by matrices for well-being outcomes and work stressors, well-being outcomes and satisfaction with social support and finally work stressors and satisfaction with social support. In the correlation tables the figures above the diagonal represent those values for quasi team, while those below the diagonal represent the values for team.

Team & Quasi Team: intercorrelations for well-being outcomes and demographics

Table 9.06

Team: Examination of the lower section of the matrix reveals significant intercorrelations ($\underline{p}$=<.005) between job satisfaction, well-being, organisational commitment and the time in the role.   Time in the role accounts for 1.7% ($\underline{r}$=-.13; $\underline{p}$=<0.01) of the variance in job satisfaction, 1.7% ($\underline{r}$=-.13; $\underline{p}$=<0.01) in well-being and 2.2% ($\underline{r}$=-.15; $\underline{p}$=<0.01) in organisational commitment.

Quasi Team: Examination of the upper section of the matrix reveals significant intercorrelations ($\underline{p}$=<.005) between job satisfaction, well-being, organisational commitment and the time in the role.   Time in the role accounts for 4.2% (r=-.22; p<0.01) of the variance in job satisfaction, 2.4%($\underline{r}$=-.16; $\underline{p}$=<0.05) in well-being and 3% ($\underline{r}$=-.17; $\underline{p}$=<0.01) in organisational commitment. Task also accounts for 2.2% ($\underline{r}$=-.15; $\underline{p}$=<0.05) of the variance in organisational commitment.

General comment: The length of time spent working in the organisation is negatively related to job satisfaction, well-being and organisational commitment. This relationship is more pronounced for those employees who work in quasi teams.

Team & Quasi Team: intercorrelations for well-being outcomes and work stressors

Table 9.07

Team: Examination of the lower section of the matrix reveals significant intercorrelations ($\underline{p}$=<.005) between well-being, job satisfaction and organisational commitment. Autonomy, feedback, role clarity, influence and job security are positively associated with well-being, job satisfaction and organisational commitment.   Job security accounts for 14% of the variance in

Table 9.06. Intercorrelations for well-being, job satisfaction, organisational commitment and stressors (n=169 after listwise deletion)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Job Satisfaction	1	0.41**	0.46**	0.16*	0.02	-0.04	-0.04	-0.11	0.07	-0.02	-0.10	-0.21**	-0.05	-0.03
2. Well-Being	0.39**	1	0.36**	0.11	-0.07	-0.02	-0.09	-0.02	-0.02	-0.01	-0.12	-0.15*	0.00	-0.07
3. Organisational Commitment	0.42**	0.34**	1	0.07	0.05	-0.05	-0.06	-0.15*	0.12	0.11	-0.04	-0.17*	0.00	-0.04
4. Sex	0.11	-0.03	-0.02	1	0.23*	-0.23*	0.20*	0.29**	-0.37**	0.08	-0.38**	-0.14	-0.03	0.02
5. Status	0.00	-0.07	-0.01	0.07	1	0.02	-0.02	0.01	-0.10	0.01	-0.06	-0.10	-0.10	0.04
6. Educational level	0.00	0.06	-0.01	-0.01	-0.02	1	-0.06	-0.04	0.17	0.07	0.08	0.14*	0.04	0.03
7. Role	-0.08	0.01	-0.12	0.14**	-0.05	-0.11	1	0.66**	-0.32**	-0.19*	-0.25**	0.14*	0.01	0.25**
8. Task	-0.08	0.02	-0.14**	0.18*	-0.09	-0.11	0.85**	1	-0.55**	-0.26**	-0.45**	0.20**	0.17*	0.17*
9. Type of Contract	-0.07	-0.09	0.10	-0.23**	0.13	0.05	-0.28**	-0.35**	1	0.05	0.36**	-0.03	-0.11	0.04
10. Hours over contracted	0.03	-0.03	0.14	0.01	0.16*	0.13*	-0.27**	-0.30**	0.09	1	0.06	-0.18*	-0.15*	0.00
11. Time in Organisation	-0.08	-0.13**	0.01	-0.21**	0.12*	-0.10	-0.18**	-0.25**	0.21**	-0.01	1	0.27**	0.09	0.00
12. Time in role	-0.13**	-0.13**	-0.15	-0.05	0.06	0.14*	0.05	0.05	0.03	-0.19*	0.34**	1	0.49**	0.07
13. Time in team	-0.07	-0.07	-0.08	-0.06	0.02	0.14*	-0.03	-0.03	0.05	-0.14*	0.28**	0.58**	1	-0.04
14. No. in team	-0.03	-0.04	0.01	0.03	0.00	-0.18	0.38**	0.35**	-0.05	-0.11	-0.05	0.02	-0.03	1

**   Correlation is significant at the .01 level (2-tailed).

*   Correlation is significant at the .05 level (2-tailed).

Table 9.07. Intercorrelations for well-being, job satisfaction, organisational commitment and work stressors (n=169 after listwise deletion)

Variables	1	2	3	4	5	6	7	8	9	10
1. Well-Being	1	0.56**	0.46**	0.25*	0.31**	0.30**	-0.40**	-0.39**	0.28**	0.30**
2. Job Satisfaction	0.51**	1	0.61**	0.23*	0.45**	0.31**	-0.51**	-0.51**	0.57**	0.26*
3. Organisational Commitment	0.49**	0.61**	1	0.35**	0.33**	0.30**	-0.23*	-0.40**	0.31**	0.20*
4. Autonomy & Control	0.18*	0.23**	0.31**	1	0.14	0.27**	0.10	-0.14	0.31**	-0.02
5. Feedback	0.31**	0.38**	0.25**	0.16*	1	0.44**	-0.27**	-0.46**	0.41**	0.06
6. Role Clarity	0.37**	0.50**	0.52**	0.31**	0.49**	1	-0.18	-0.36**	0.31**	0.23*
7. Work Demands	-0.54**	-0.58**	-0.30**	0.02	-0.27**	-0.31**	1	0.41**	-0.27**	-0.27**
8. Role Conflict	-0.36**	-0.53**	-0.24**	-0.08	-0.34**	-0.38**	0.59**	1	-0.27**	-0.15
9. Influence	0.32**	0.50**	0.42**	0.44**	0.34**	0.48**	-0.16*	-0.35**	1	0.13
10. Job Security	0.38**	0.43**	0.36**	0.03	0.21**	0.22**	-0.33**	-0.20**	0.29	1

**   Correlation is significant at the 0.01 level (2-tailed).

*   Correlation is significant at the 0.05 level (2-tailed).

well-being (r=0.38; p=<.001), while work demands account for 29% of the variance in well-being (r=-0.54; p=<.001). Influence and role clarity individually account for 25% (r=0.50; p=<.001) of the variance in job satisfaction and work demands account for 34% (r=-0.58; p=<.001) of the variance in job satisfaction. Role clarity accounts for 27% (r=0.52; p=<.001) of the variance in with organisational commitment, and work demands account for 9% (r=-0.30; p=<.001) of the variance in organisational commitment. The presence of high work demands and role conflict are negatively associated with well-being, job satisfaction, organisational commitment, while influence, job security and role clarity are positively associated.

Quasi Team: Examination of the upper section of the matrix reveals significant intercorrelations (p=<.005) between well-being, job satisfaction and organisational commitment. The direction of the associations are the same as described above for teams. Feedback accounts for 10% (r=0.31; p=<.001) of the variance in well-being, while work demands account for 16% (r=-.40; p=<.001) of the variance. Influence accounts for 32% (r=0.57; p=<.001) of the variance in job satisfaction, and role conflict accounts for 26% (r=-0.51; p=<.001). Control accounts for 12% (r=0.35; p=<.001) of the variance in organisational commitment, and role conflict accounts for 16% (r=-0.40; p=<.001) of the variance in organisational commitment

General comment: The direction of the relationships are consistent in each half of the table role conflict and work demands being negatively associated with outcomes and the remaining work stressors positively associated with the outcomes. There does not appear to be a pattern to the differences between relative work stressors variance.

Team & Quasi Team: intercorrelations for well-being outcomes and aggregated social support variables: satisfaction with support

Table 9.08

Team: Examination of the lower section of the matrix reveals significant intercorrelations (p=<.001) between all sources of support and well-being outcomes. Satisfaction with manager support accounts for 26% (r=0.51; p=<.001) of the variance in job satisfaction, satisfaction with team support accounts for 18% (r=0.43; p=<.001) and satisfaction with colleague support accounts for 16% (r=0.40; p=<.001). Satisfaction with task appreciation

explains the greatest variance in outcomes measures, accounting for 11% (r=0.34; p=<.001), of the variance in well-being, 29% (r=0.54; p=<.001) in job satisfaction and 19% (r=0.43; p=<.001) in organisational commitment.

Quasi Team: Satisfaction with manager support accounts for 44% (r=0.67; p=<.001) of the variance in job satisfaction, satisfaction with team support accounts for 13% (r=0.36; p=<.001) and satisfaction with colleague support accounts for 7% (r=0.26; p=<.001). Satisfaction with team support is not significantly associated with organisational commitment and satisfaction with colleague support is not significantly associated with well-being or organisational commitment. Satisfaction with task challenge explains the greatest variance in well-being, accounting for 16% (r=0.40; p=<.001) and organisational commitment, accounting for 14% (r=0.37; p=<.001) of the variance, while satisfaction with emotional challenge explains the greatest variance in job satisfaction, accounting for 31% (r=0.56; p=<.001) of the variance.

General Comment: Again the direction of the relationships between social support and the well-being outcomes are the same in teams and quasi teams, all positively associated. There does not appear to be a pattern in the relative variance accounted for by the support source and type.

Team & Quasi Team: intercorrelations for work stressors and aggregated social support variables: satisfaction with support

Table 9.09.

Team: Satisfaction with manager support accounts for the greatest variance in control, accounting for 4% (r=0.19; p=<.001), feedback, accounting for 9% (r=0.31; p=<.001), influence, accounting for 24% (r=0.49; p=<.001) and job security, accounting for 5% (r=0.22; p=<.001). Satisfaction with colleague support accounts for the greatest variance in role clarity, accounting for 6% (r=0.25; p=<.001), work demands, accounting for 9% (r=-0.30; p=<.001) and role conflict, accounting for 7% (r=-0.26; p=<.001). Of the support types, Satisfaction with task appreciation accounts for the greatest variance in control, accounting for 4% (r=0.19; p=<.001), role conflict, accounting for 12% (r=-0.34; p=<.001) and influence, accounting for 15% (r=0.39; p=<.001). Satisfaction with task challenge accounting for the greatest variance in feedback, accounting for 11% (r=0.33; p=<.001), and

role clarity, accounting for 8% ($r=0.29$; $p=<.001$). Satisfaction with practical assistance accounts for the greatest variance in work demands, accounting for 10% ($r=-0.31$; $p=<.001$), and satisfaction with emotional challenge accounts for the greatest variance in job security, accounting for 6% ($r=0.24$; $p=<.001$).

Quasi Team: Satisfaction with manager support accounts for the greatest variance in feedback, accounting for 17% ($r=0.42$; $p=<.001$), work demands, accounting for 11% ($r=-0.33$; $p=<.001$), role conflict, accounting for 13% ($r=-0.37$; $p=<.001$), influence, accounting for 17% ($r=0.41$; $p=<.001$) and job security, accounting for 4% ($r=0.21$; $p=<.001$). Satisfaction with team support accounts for the greatest variance in control, accounting for 8% ($r=0.28$; $p=<.001$), satisfaction with colleague support accounts for the greatest variance in role clarity accounting for 6% ($r=0.25$; $p=<.001$) of the variance. Of the support types, satisfaction with task appreciation accounts for the greatest variance in work demands, accounting for 12%($r=-0.35$; $p=<.001$), and role conflict, accounting for 16% ($r=-0.40$; $p=<.001$). Satisfaction with practical assistance accounts for the greatest variance in control, accounting for 1% ($r=0.15$; $p=<.001$) of the variance. Satisfaction with emotional challenge accounts for the greatest variance in influence (14 %; $r=0.38$; $p=<.001$), satisfaction with listening support accounts for the greatest variance in job security (5%; $r=0.23$; $p=<.001$) and satisfaction with reality check accounts for the greatest variance in feedback (18%;. $r=0.42$; $p=<.001$) and role clarity (8%; $r=0.307$; $p=<.001$).

General Comment: As in the above two tables the directions of associations are consistent between teams and quasi teams, again the variance accounted for by the support types does not reveal a pattern.

<u>Study Variables Dependent on Demographic Factors</u>

Differences between Teams and Quasi Teams

A significant difference was observed between team and quasi teams regarding team size. Groups were significantly larger in teams than in quasi teams ($p=.025$). In teams mean = 12.06, SD =0.45, n = 203, and in quasi teams mean =9.97, SD=0.61, n=116. Team size did not influence the dependent variables and was therefore not controlled for.

Table 9.08. Intercorrelations for well-being, job satisfaction, organisational commitment and satisfaction with support source and type (n=169 after listwise deletion)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Well-Being	1												
2. Job Satisfaction	0.51**	1											
3. Organisational Commitment	0.49**	0.56**	1										
4. Satisfaction manager support	0.29**	0.607**	0.61**	1									
5. Satisfaction team support	0.25**	0.51**	0.37**	0.44**	1								
6. Satisfaction colleague support	0.24**	0.43**	0.22**	0.18*	0.13	1							
7. Satisfaction Task Appreciation	0.34**	0.40**	0.28**	0.18*	0.22*	0.09	1						
8. Satisfaction Task Challenge	0.29**	0.54**	0.43**	0.48**	0.33**	0.39**	0.46**	1					
9. Satisfaction Practical Assistance	0.35**	0.50**	0.36**	0.38**	0.46**	0.68**	0.60**	0.69**	1				
10. Satisfaction Reality Check	0.23**	0.53**	0.32**	0.48**	0.40**	0.65**	0.67**	0.61**	0.57**	1			
11. Satisfaction Emotional Support	0.27**	0.48**	0.27**	0.42**	0.49**	0.67**	0.70**	0.65**	0.70**	0.66**	1		
12. Satisfaction Emotional Challenge	0.30**	0.47**	0.30**	0.42**	0.40**	0.66**	0.70**	0.68**	0.60**	0.67**	0.63**	1	
13. Satisfaction Listening Support	0.30**	0.49**	0.33**	0.37**	0.46**	0.63**	0.68**	0.68**	0.51**	0.53**	0.50**	0.61**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 9.09. Intercorelations for work stressors and satisfaction with support source and type (n=169 after listwise deletion)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Autonomy & Control	1																
2. Feedback	0.16*	1															
3. Role Clarity	0.31**	0.49**	1														
4. Work Demands	0.02	-0.27**	0.27**	1													
5. Role Conflict	-0.08	-0.34**	-0.31**	-0.46**	1												
6. Influence	0.44**	0.34**	0.44**	-0.27**	-0.36**	1											
7. Job Security	0.03	0.21**	0.22**	-0.18	-0.27**	0.23*	1										
8. Sat Manager Support	0.19*	0.31**	0.22**	-0.33**	-0.37**	0.41**	0.21	1									
9. Sat Team Support	0.16*	0.19*	0.24**	-0.23**	-0.16	0.27**	0.18	0.33**	1								
10. Sat Colleague Support	0.07	0.25**	0.13	-0.22**	-0.175	0.07	0.08	0.46**	0.39**	1							
11. Sat Task Appreciation	0.19*	0.32**	0.25**	-0.24**	-0.18	0.22**	0.09	0.46**	0.31**	0.146	1						
12. Sat Task Challenge	0.16*	0.33**	0.28**	-0.25**	-0.28**	0.07	0.22*	0.48**	0.146	0.67**	0.65**	1					
13. Sat Practical Assistance	0.16*	0.30**	0.28**	-0.26**	-0.34**	0.14	0.18*	0.48**	0.50**	0.57**	0.60**	0.66**	1				
14. Sat Reality Check	0.12	0.24**	0.30**	-0.31**	-0.36**	0.42**	0.07	0.46**	0.52**	0.60**	0.61**	0.70**	0.59**	1			
15. Sat Emotional Support	0.16*	0.23**	0.28**	-0.33**	-0.26**	0.36**	0.18	0.44**	0.61**	0.61**	0.70**	0.63**	0.57**	0.49**	1		
16. Sat Emotional Challenge	0.16*	0.29**	0.29**	-0.167	-0.24*	0.38**	0.198	0.52**	0.61**	0.70**	0.56**	0.44**	0.53**	0.50**	0.61**	1	
17. Sat Listening Support	0.18*	0.19*	0.24**	-0.23*	-0.20*	0.34**	0.23	0.46**	0.63**	0.63**	0.68**	0.51**	0.53**	0.50**	0.61**	0.56**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Results

The results will be presented in accordance to the hypotheses, accompanied by the theoretical model and with summaries where relevant. The hypotheses were tested using Analysis of Variance (ANOVA) and multiple regression analysis techniques (Cohen & Cohen, 1983). In accordance to suggestions by Wright (2003) on improving the reporting of statistics in psychology, the precise probability will be provided.

ANOVA enabled further exploration of differences between teams and quasi teams. The tables illustrate the differences between teams and quasi teams, detailing the mean, SD, the difference between the means, F and degrees of freedom, significance detail and eta-squared. Eta-squared calculations were carried out; these are the equivalent of the R-squared from a regression model, to see which variables accounted for the greatest difference between teams and quasi teams. Any value over 40% will be highlighted. Due to the number of ANOVA performed type 1 error inflation is of concern in this analysis; therefore it is necessary to be conservative, the error rate per analysis will therefore not exceed 0.05.

When the ANOVA results reveal statistically significant differences between employees who work in teams and those who work in quasi teams regarding their well-being, job satisfaction, organisational commitment, work stressors and satisfaction with social support; regression analyses were performed to explore the extent to which the study variables explained the differences in well-being, job satisfaction and organisational commitment. The combination of factors which predict these differences as a consequence of team working were then explored. Hypotheses one to four address direct relationships between team working and the study variables, followed by hypotheses five to eight which address the mediated relationships between variables. Mediated relationships are only assessed when a significant direct relationship was found between team and the dependent variable.

The regression tables report the proportion of variance accounted for by each model, the statistical significance of the model as each factor is entered (if in a block) and the statistical significance of the predictor variables (change in R^2 (ΔR^2), standardised beta weight (β) and

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significance level (p)). Demographic variables which influence the outcome variables are used as controls within the analysis, they are entered as a block and are labelled stage 1. The control variables are: task (area manager, branch manager), hours over contract (hours over 1-3, hours over 4-6, hours over 7-9), sex, time in role and type of contract (dummy variables were created where necessary). Although size of the team was a significant difference between teams and quasi teams, size does not impact on the outcome variables and therefore is not included as a control.

Hypothesis 1

People who work in a team will report greater well-being outcomes than those who do not work in a team.

Figure 9.03. The theoretical model highlighting relationships tested in hypothesis 1
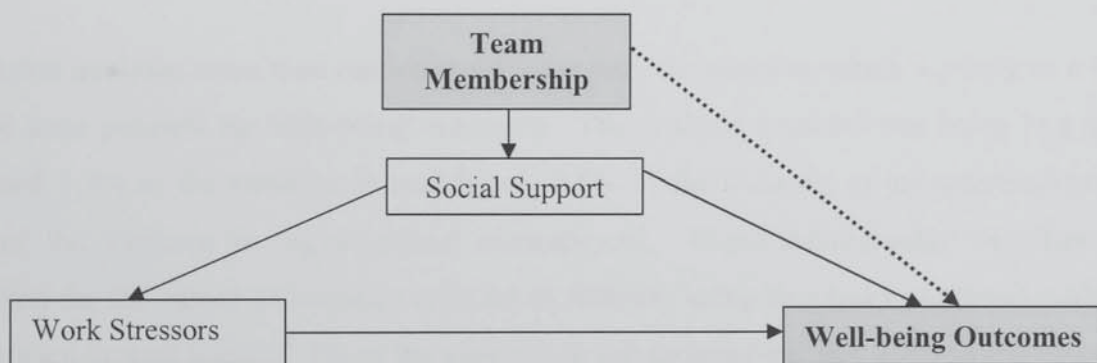
A series of ANOVA were carried out to establish if there are any differences between teams and quasi teams. (See ANOVA table 9.10. page 166).

People in teams report significantly greater well-being (p=.011, eta^2 = .021), job satisfaction (p=.006, eta^2 = .024) and organisational commitment (p=.002, eta^2 = .030) than those in quasi teams; thereby fully supporting hypothesis 1.

Figure 9.04. Table illustrating the differences in well-being outcomes for individuals in teams compared to those in quasi teams

*** p< 0.001 level   ** p< 0.01 level   *   p< 0.05 level
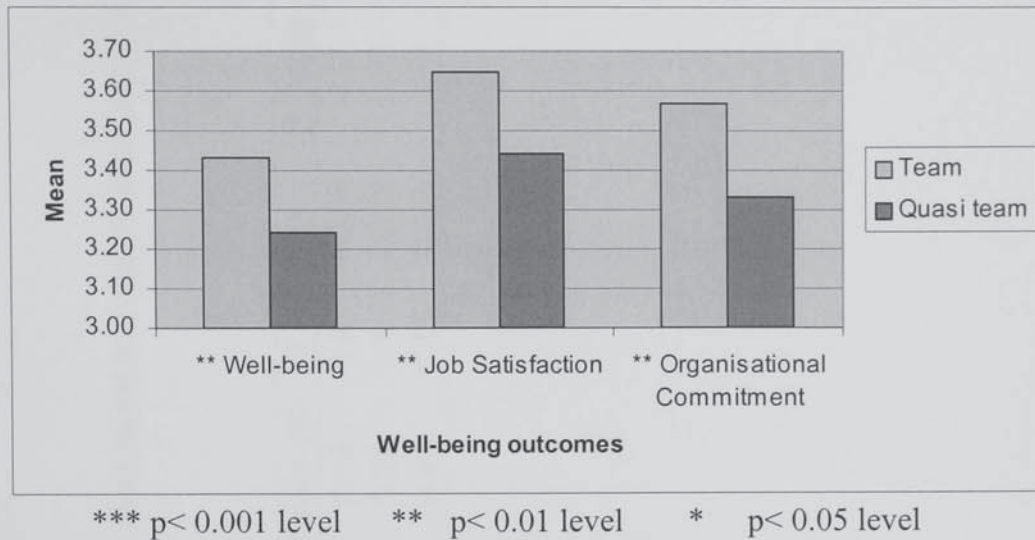
Regression analyses were then carried out to examine the extent to which working in a well defined team predicts the well-being outcomes. The analysis revealed that being in a team explained 1.7% of the variance in well-being, 2.6% of the variance in job satisfaction and 3.5% of the variance in organisational commitment. When demographic variables are controlled for the extent of variance reduced as follows: being in a team explained 1.6% of the variance in well-being; 2.1% of the variance in job satisfaction; and 2.2% of the variance in organisational commitment.

Table 9.10. Univariate analysis of variance: The difference in well-being, job Satisfaction and organisational commitment for those individuals in teams and quasi teams (n=324)

Dependent Variable	Team		Quasi-Team						
	Mean	SD	Mean	SD	Mean diff	F	df	P Value	Eta^2
Well-being	3.43	.687	3.24	.647	0.19	6.6	1/308	.011	0.021
Job Satisfaction	3.65	.661	3.44	.703	0.21	7.6	1/308	.006	0.024
Organisational Commitment	3.57	.587	3.33	.619	0.24	9.55	1/308	.002	0.030

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

[1]Table 9.11. The direct effect of team on job satisfaction, well-being, and

organisational commitment

DV		Job Satisfaction	Well-being	Organisational Commitment
1	Controls β:			
	area manager	.164	.002	.102
	branch manager	.059	-.060	.091
	hours over none	.126	.156	-.068
	hours over 1-3	.089	.058	-.056
	hours over 4-6	.001	.053	-.008
	hours over 7-9	.136	.104	.041
	sex	.144	-.050	.057
	time in role	-.244	-.269	-.211
	type of contract	-.032	-.065	.053
	Change in R^2	.118	.079	.105
2	IV β: Team	-.149	-.130	-.153
	Change in R^2	.021	.016	.022
	Sig level	.009	.025	.007

These results lend full support to hypothesis 1; people who work in teams experience greater well-being, job satisfaction and organisational commitment compared to those who work in quasi teams. Following this, the next hypothesis addresses differences in work stressors reported by those in teams and quasi teams.

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[1] The beta weights detailed will be used in the subsequent tables for mediation analyses.

Hypothesis 2

People who work in a team will report less role conflict and work demands; and greater role clarity, job security, feedback control and influence than those who do not work in a team.

Figure 9.05. The theoretical model highlighting relationships tested in hypothesis 2
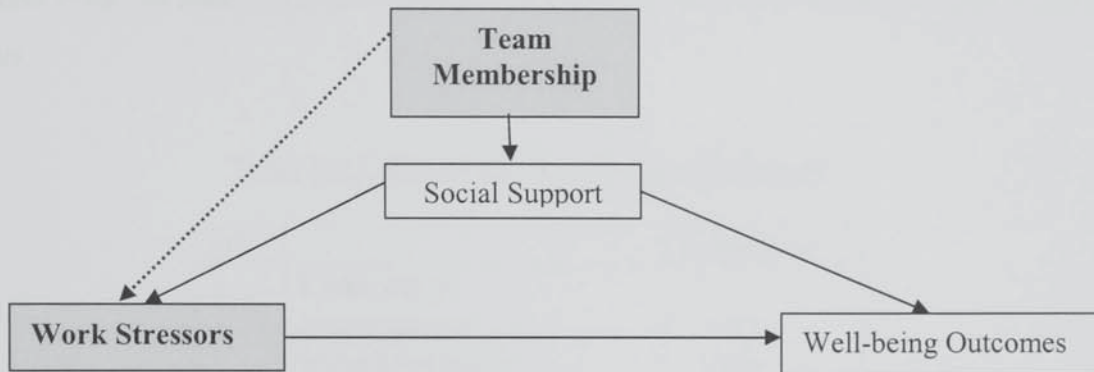
A series of ANOVA were carried out to establish if there are any differences between teams and quasi teams with regards to the work stressors. (See ANOVA table 9.12. page 170).

Figure 9.06. Table illustrating the differences in work stressors for individuals in teams compared to those in quasi teams

** p< 0.01 level * p< 0.05 level
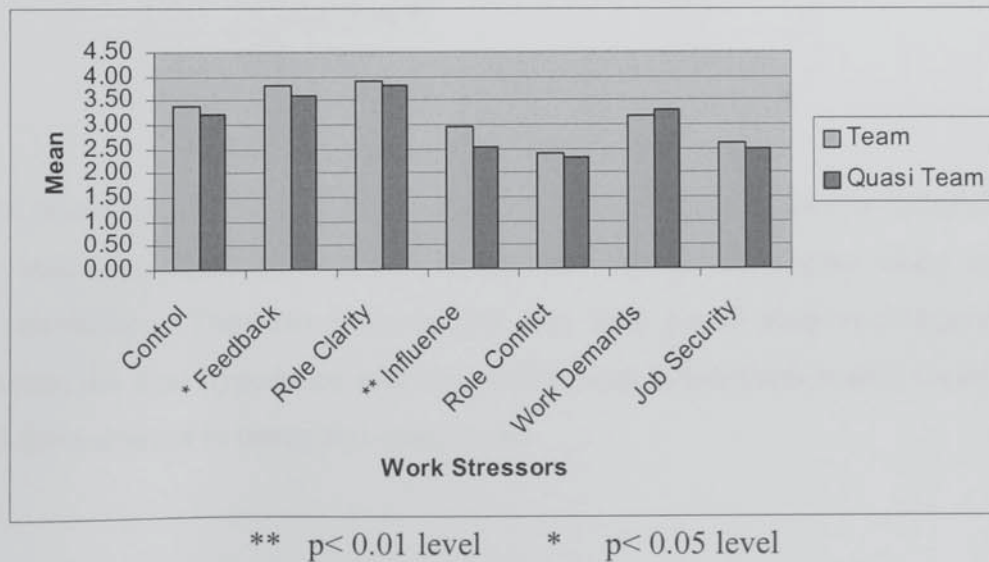
People who work in teams report greater control, feedback, role clarity, influence, role conflict and job security, and less work demands than those in quasi teams. However, the only relationships which are statistically significant between teams and quasi teams are influence ($p=.001$, $eta^2 = .034$), and feedback ($p=.024$, $eta^2 = .016$); thereby only partially supporting hypothesis 2.

The direct effect of teamwork on feedback and influence was then explored using regression analyses.

Table 9.12. Direct effect of team on influence

DV		Influence
1	**Controls β:**	
	area manager	.143
	branch manager	.216
	hours over none	.064
	hours over 1-3	-.083
	hours over 4-6	-.069
	hours over 7-9	.031
	sex	-.088
	time in role	-.227
	type of contract	.064
	Change in R^2	.127
2	**IV β: Team**	-.174
	Change in R^2	.029
	Sig level	.002

The results reveal that being in a team explains 2.9% of the variance in influence. The regression result for feedback was not statistically significant despite being so in the ANOVA calculation. Therefore these results only lend partial support to hypothesis 2. Following this, the next hypothesis addresses differences in satisfaction with social support types from three sources in teams and quasi teams.

Table 9.13. Univariate analysis of variance: The difference in work stressors for those individuals in teams and quasi teams (n=324)

Dependent Variable	Team		Quasi-Team		Mean diff	F	df	P Value	Eta^2
	Mean	SD	Mean	SD					
Control	3.39	1.020	3.23	1.040	0.16	0.1	1/308	.751	0.000
Feedback	3.80	.561	3.62	.733	0.18	5.16	1/308	.024*	0.016
Role Clarity	3.90	.675	3.81	.729	0.09	0.8	1/308	.372	0.003
Influence	2.96	.938	2.54	.857	0.42	11.2	1/308	.001**	0.034
Role Conflict	2.41	.954	2.32	.970	0.09	0.08	1/308	.772	0.000
Work Demands	3.19	1.050	3.28	1.000	-0.09	3.72	1/308	.055	0.012
Job Security	2.62	.643	2.49	.626	0.13	3.01	1/308	.118	0.010

** Correlation is significant at the .01 level (2-tailed).
* Correlation is significant at the .05 level (2-tailed).

Hypothesis 3

a. People who work in a team will report greater satisfaction with all types of support from managers, and team members than those people who do not work in a team.

b. There will be no difference in satisfaction with support types from colleagues between people who work in a team and those who do not work in a team.

Figure 9.07. The theoretical model highlighting relationships tested in hypothesis 3
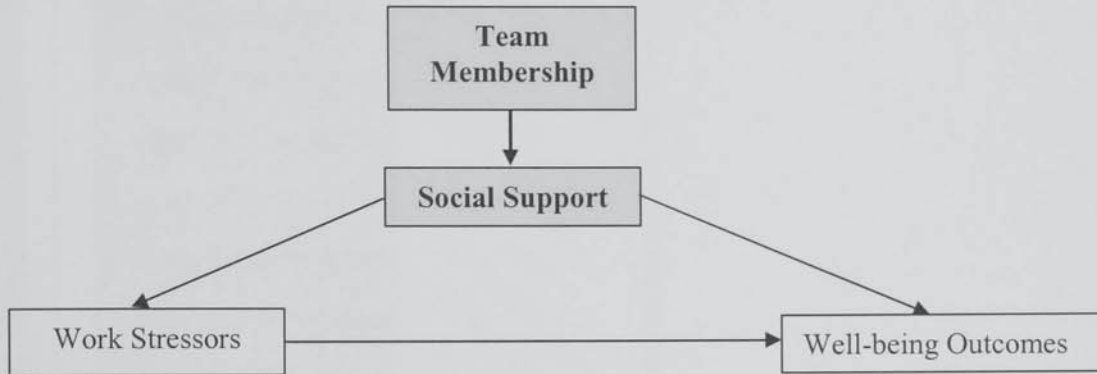
A series of ANOVA were carried out to establish if there are any differences between teams and quasi teams in terms of their satisfaction with specific support types from their manager, team members and colleagues. (See ANOVA table 9.14. page 172). Figure 9.08 (page 174) illustrates the ANOVA results for each type of support from the three individual sources. The subsequent three figures depict the information below but segregated by support source. Satisfaction with manager support is followed by satisfaction with team support then satisfaction with colleague support.

Figure 9.08. Satisfaction with Individual Support Types from the Manager, Team Members and Colleagues

Table 9.14. Univariate analysis of variance: The difference in individual social support source and type for those individuals in teams and quasi teams

Dependent Variable	Team		Quasi-Team		Mean diff	F	df	P Value	Eta^2
	Mean	SD	Mean	SD					
Manager: Task appreciation	3.37	1.06	2.98	1.07	0.57	8.67	1/308	.003*	0.027
Team: Task appreciation	3.41	1.01	3.12	1.09	0.29	5.24	1/308	.023*	0.017
Colleague: Task appreciation	2.95	1.09	2.49	1.15	0.46	12.3	1/291	.001***	0.040
Manager: Satisfaction task appreciation	3.59	1.01	3.15	1.10	0.44	12.1	1/308	.001***	0.038
Team: Satisfaction task appreciation	3.67	0.92	3.58	0.92	0.09	1.22	1/308	.270	0.004
Colleague: Satisfaction task appreciation	3.40	0.91	3.19	0.88	0.21	5.26	1/291	.023*	0.018
Manager: Task challenge	3.12	1.15	2.69	1.08	0.43	8.86	1/308	.003*	0.028
Team: Task challenge	2.82	1.05	2.55	1.11	0.27	4.98	1/308	.026*	0.016
Colleague: Task challenge	2.39	1.08	1.87	0.99	0.52	16.3	1/291	.000***	0.053
Manager: Satisfaction task challenge	3.42	1.02	3.01	1.09	0.41	9.54	1/308	.002**	0.030
Team: Satisfaction task challenge	3.42	0.96	3.37	0.87	0.05	0.7	1/308	.403	0.002
Colleague: Satisfaction task challenge	3.23	0.92	2.99	0.81	0.24	7.36	1/291	.007**	0.025
Manager: Practical assistance	2.79	1.20	2.54	1.15	0.25	3.59	1/308	.059	0.012
Team: Practical assistance	3.51	0.98	3.27	1.00	0.24	4.02	1/308	.046*	0.013
Colleague: Practical assistance	2.84	1.11	2.42	1.02	0.42	12.1	1/291	.001***	0.040
Manager: Satisfaction practical assistance	3.39	1.01	3.00	1.07	0.39	10.3	1/308	.002**	0.009
Team: Satisfaction practical assistance	3.70	0.87	3.54	0.95	0.16	2.85	1/308	.092	0.022
Colleague: Satisfaction practical assistance	3.34	0.94	3.10	0.91	0.24	6.79	1/291	.010**	0.023
Manager: Reality check	3.04	1.09	2.66	1.03	0.38	7.64	1/308	.006**	0.023
Team: Reality check	3.31	0.94	3.12	1.04	0.19	3.71	1/308	.055	0.012
Colleague: Reality check	2.78	1.04	2.44	1.15	0.34	7.98	1/291	.005**	0.027
Manager: Satisfaction reality check	3.41	0.91	3.09	0.98	0.32	7.27	1/308	.007**	0.023

	Mean	SD	Mean	SD		F	df	p	
Team: Satisfaction reality check	3.57	0.80	3.53	0.80	0.04	0.8	1/308	.373	0.017
Colleague: Satisfaction reality check	3.27	0.84	3.09	0.89	0.18	5.3	1/291	.022*	0.018
Manager: Emotional support	2.82	1.27	2.39	1.17	0.43	8.28	1/308	.004*	0.026
Team: Emotional support	3.22	1.12	3.12	1.10	0.10	1.94	1/308	.164	0.006
Colleague: Emotional support	2.75	1.25	2.37	1.19	0.37	8.04	1/291	.005*	0.027
Manager: Satisfaction emotional support	3.37	1.04	2.88	1.12	0.49	15.2	1/308	.000***	0.047
Team: Satisfaction emotional support	3.62	0.90	3.51	0.91	0.11	2.79	1/308	.096	0.009
Colleague: Satisfaction emotional support	3.35	0.93	3.08	0.95	0.27	9.35	1/291	.002*	0.031
Manager: Emotional challenge	2.87	1.16	2.47	1.07	0.40	6.94	1/308	.009	0.022
Team: Emotional challenge	2.72	1.09	2.61	1.13	0.11	1.64	1/308	.202	0.005
Colleague: Emotional challenge	2.41	1.11	2.03	1.06	0.38	9.22	1/291	.003*	0.03
Manager: Satisfaction emotional challenge	3.38	0.95	2.96	0.97	0.42	11.9	1/308	.001***	0.037
Team: Satisfaction emotional challenge	3.37	0.90	3.36	0.87	0.01	0.33	1/308	.568	0.001
Colleague: Satisfaction emotional challenge	3.22	0.89	3.03	0.84	0.19	5.01	1/291	.026*	0.017
Manager: Listening support	2.84	1.24	2.32	1.19	0.52	11.8	1/308	.001***	0.037
Team: Listening support	3.13	1.15	3.13	1.21	0.00	0.13	1/308	.716	0
Colleague: Listening support	2.67	1.18	2.46	1.22	0.21	2.09	1/291	.150	0.007
Manager: Satisfaction listening support	3.34	1.05	2.88	1.12	0.46	13.5	1/308	.000***	0.042
Team: Satisfaction listening support	3.51	0.91	3.52	0.96	-0.01	0.2	1/308	.655	0.009
Colleague: Satisfaction listening support	3.33	0.94	3.20	0.89	0.13	2.7	1/291	.101	0.009

For manager and team support variables: n=196   n-112

For colleague support variables: n=185   n=106

* p< 0.05 **p< 0.01 *** p< 0.001

Figure 9.09. Satisfaction with support types from manager
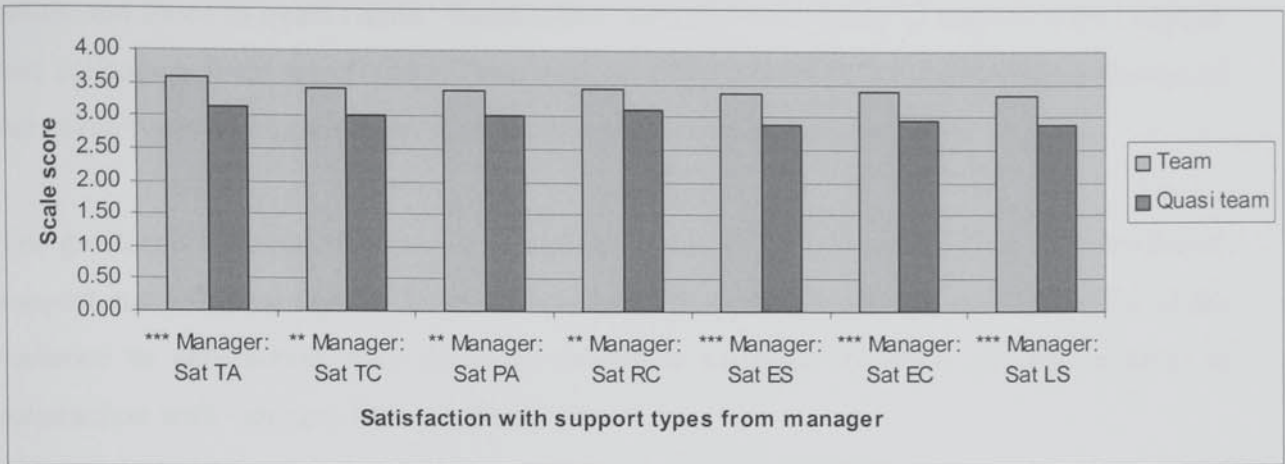
*** p< 0.001 level   **p< 0.01 level   *p< 0.05 level

Figure 9.10. Satisfaction with support types from team members
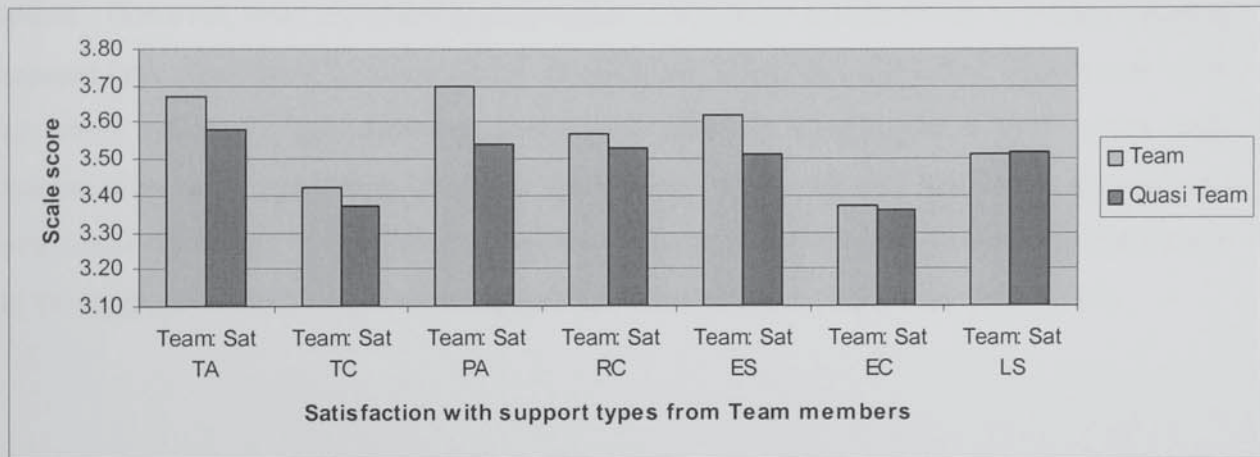
*** p< 0.001 level   **   p< 0.01 level   *   p< 0.05 level

Figure 9.11. Satisfaction with support types from colleagues
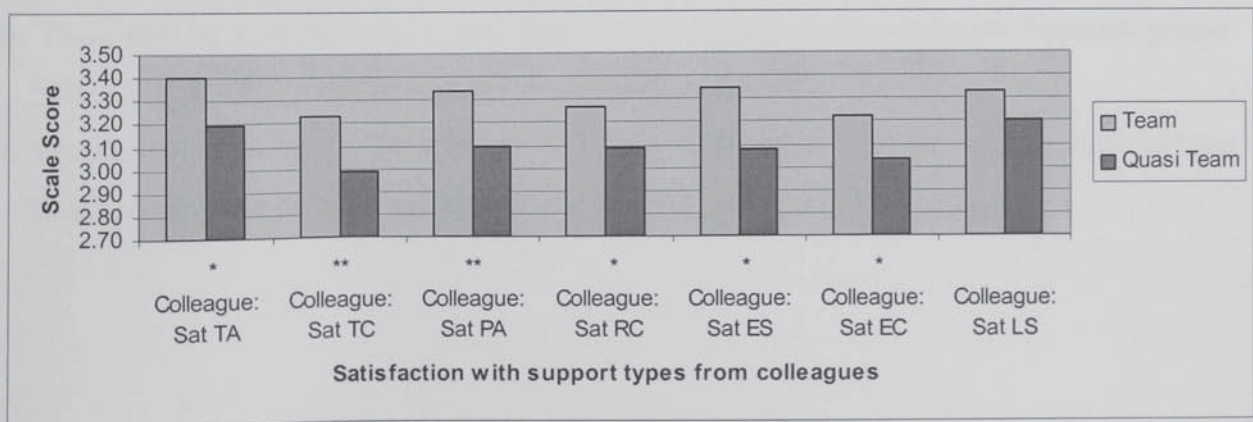
*** p< 0.001 level   **   p< 0.01 level   *   p< 0.05 level

There were many statistically significant differences in social support between individuals in teams and those in quasi teams. Satisfaction with all seven types of support from manager and colleagues were significant. There was no difference between satisfaction with any of the seven types of support from team members in teams and quasi teams.

The greatest difference between teams and quasi teams were for satisfaction with emotional support and listening support from the manager. Being in a team accounted for 47% of the variance in satisfaction with manager emotional support, and 42% of the variance in satisfaction with manager listing support.

The ANOVA analyses therefore lend partial support to hypothesis 3a. Team members are more satisfied with all support types they receive from managers than individuals in quasi teams. However, team members are not significantly more satisfied with any team member support types than those in quasi teams. Hypothesis 3b was not supported, people who work in teams reported significantly greater satisfaction with colleague support types: task appreciation, task challenge, practical assistance, reality check, emotional support and emotional challenge. The following hypothesis expands on this one, addressing differences in the aggregated satisfaction with support variables between teams and quasi teams.

Hypothesis 4

a. People who work in a team will report greater satisfaction with manager support and team member support than those who do not work in a team.

b. There will be no difference in satisfaction with support from colleagues between people who work in a team and those who do not work in a team.

c. People who work in a team will report greater satisfaction with all types of support than those people who do not work in a team.

Figure 9.12. The theoretical model highlighting relationships tested in hypothesis 4
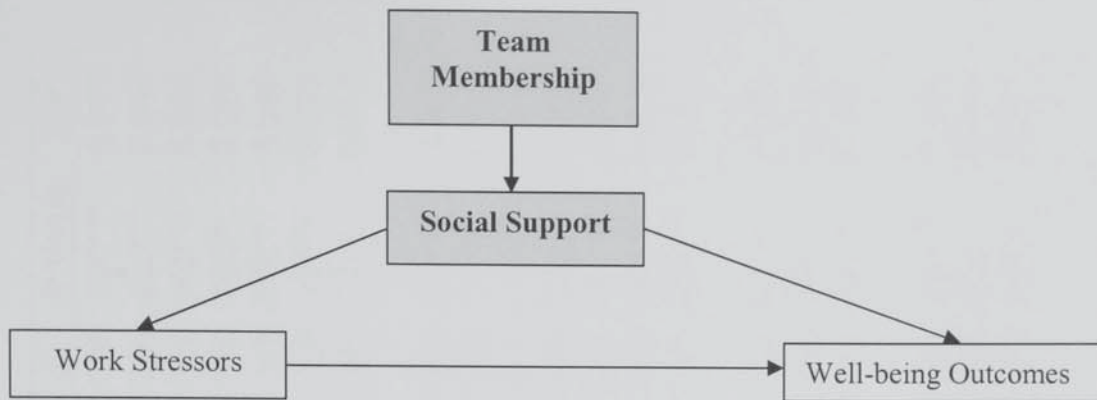
A series of ANOVA were carried out to establish if there are any differences between teams and quasi teams with regards to aggregated satisfaction with social support source and type. (See ANOVA table 9.15. overleaf).

Source of support

Figure 9.13. Satisfaction with support source

*** p< 0.001 level   ** p< 0.01 level   *p< 0.05 level
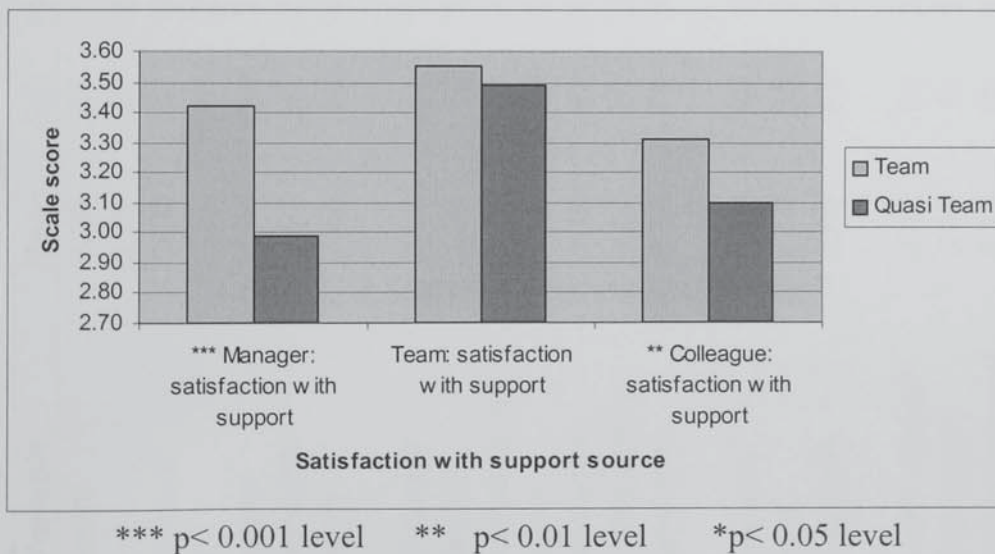
Employees in teams report significantly greater satisfaction with manager and colleague support, (p=.000, eta^2 = .048; p= .005, eta^2 = .027 respectively) but there were no differences between the two groups for satisfaction with support from team members. These results therefore only partially support hypothesis 4a and do not support hypothesis 4b.

Table 9.15. Univariate analysis of variance: The difference in social support amount and satisfaction with type and source of support for those individuals in teams and quasi teams

Dependent Variable	Team		Quasi-Team		Mean diff	F	df	P Value	Eta²
	Mean	SD	Mean	SD					
Task appreciation: amount	3.25	.83	2.89	.80	0.36	13.30	1/308	.000***	0.041
Task challenge: amount	2.79	.89	2.38	.81	0.41	14.70	1/308	.000***	0.045
Practical assistance: amount	3.06	.82	2.77	.76	0.29	9.70	1/308	.002***	0.031
Reality check: amount	3.05	.80	2.78	.82	0.27	8.74	1/308	.003**	0.028
Emotional support: amount	2.94	.95	2.65	.86	0.29	9.41	1/308	.002**	0.030
Emotional challenge: amount	2.67	.91	2.39	.82	0.28	7.78	1/308	.006**	0.025
Listening support: amount	2.88	.92	2.65	.87	0.23	5.37	1/308	.021*	0.017
Task appreciation: satisfaction	3.56	.71	3.32	.66	0.24	9.87	1/308	.002**	0.031
Task challenge: satisfaction	3.36	.77	3.13	.70	0.23	7.83	1/308	.005**	0.025
Practical assistance: satisfaction	3.48	.72	3.24	.74	0.24	10.30	1/308	.002**	0.032
Reality check: satisfaction	3.42	.65	3.26	.67	0.16	5.92	1/308	.016*	0.019
Emotional support: satisfaction	3.45	.77	3.16	.78	0.29	14.10	1/308	.000***	0.044
Emotional challenge: satisfaction	3.32	.72	3.12	.64	0.20	7.50	1/308	.007**	0.024
Listening support: satisfaction	3.39	.77	3.20	.72	0.19	7.09	1/308	.008**	0.023
Manager: amount of support	2.98	.99	2.58	.90	0.40	11.60	1/308	.001**	0.036
Team: amount of support	3.16	.86	2.99	.90	0.17	4.54	1/308	.053	0.015
Colleague: amount of support	2.69	.93	2.31	.92	0.38	13.20	1/292	.000***	0.041
Manager: satisfaction with support	3.42	.88	2.99	.91	0.43	15.40	1/308	.000***	0.048
Team: satisfaction with support	3.55	.76	3.49	.74	0.06	14.70	1/308	.223	0.046
Colleague: satisfaction with support	3.31	.79	3.10	.71	0.21	8.05	1/292	.005**	0.027

For colleague variables: n=185   n=107

For manager and team variables: n=195   n=113

*p< 0.05 level

*** p< 0.001 level   **p< 0.01 level

Type of support

Figure 9.14. Satisfaction with support type

*** p< 0.001 level   ** p< 0.01 level   *p< 0.05 level
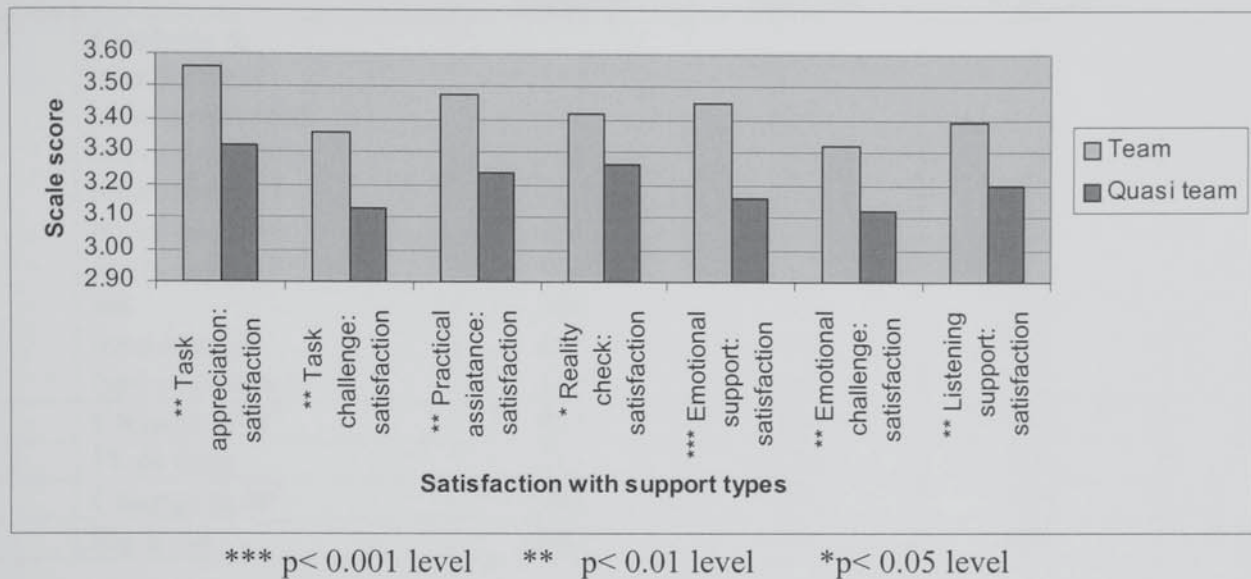
Those in teams report significantly greater satisfaction with all types of support: task appreciation, task challenge, practical assistance, reality confirmation, emotional support, emotional challenge and listening support ($p<.05$). This finding fully supports hypothesis 4c.

Satisfaction with emotional support (44%) accounted for the most variance, followed by satisfaction with practical assistance (32%) and satisfaction with task appreciation (31%). The direct effect of team working on satisfaction with social support was then explored using regression analysis.

Source of support

The results reveal that team working accounts for 4.2% of the variance in satisfaction with manager support, and 2.6% of the variance in satisfaction with colleague support.

Table 9.16. Direct effect of team on sources of support

DV		Satisfaction with Manager support	Satisfaction with Team support	Satisfaction with Colleague support
1	Controls β:			
	area manager	.133	.272	.037
	branch manager	.122	-.080	-.125
	hours over none	.103	.126	.104
	hours over 1-3	.020	.123	.068
	hours over 4-6	.071	.159	.068
	hours over 7-9	.067	.037	.110
	sex	-.030	-.040	.112
	time in role	-.191	-.051	.041
	type of contract	.121	-.145	-.092
	Change in R^2	.058	.115	.053
2	**IV β: team**	-.211	-.076	-.164
	Change in R^2	.042	.005	.026
	Sig level	.000	.185	.007

Type of support

Team working accounted for the following variances in satisfaction with the seven types of support: task appreciation 3.2%; task challenge 2.4%; practical assistance 2.9%; reality check 1.7%; emotional support 4.1%; emotional challenge 2.6%; listening support 1.9%.

Table 9.17. Direct effect of team on satisfaction with the seven types of support

DV		Sat TA	Sat TC	Sat PA	Sat RC	Sat ES	Sat EC	Sat LS
1	Controls β :							
	area manager	.054	.118	.220	.225	.110	.222	.199
	b'h manager	-.059	.035	.057	.024	-.102	-.005	-.027
	hrs ov'r none	.091	.061	.167	.146	.135	.089	.141
	hrs over 1-3	.084	.042	.079	.100	.025	.163	.054
	hrs over 4-6	.153	.066	.136	.102	.079	.125	.129
	hrs over 7-9	.081	.024	.045	.081	.088	.126	.150
	sex	-.033	-.025	-.015	.053	.017	.033	.021
	time in role	-.100	-.105	-.117	-.050	-.0.65	-.053	-.111
	contract	-.088	-.165	-.207	-.179	-.078	-.158	-.133
	Change R^2	.030	.034	.070	.059	.053	.061	.079
2	**IV β: team**	-.183	-.160	-.176	-.135	-.210	-.166	-.144
	Change R^2	.032	.024	.029	.017	.041	.026	.019
	Sig level	.002	.007	.003	.021	.000	.005	.013

The regression analysis results echo the findings from the ANOVA. Overall, the results lend partial support for hypothesis 4. Hypothesis 4a was partially supported, as team members are more satisfied with the support they receive from managers than individuals in quasi teams. Hypothesis 4b was not supported, team members reported greater satisfaction with support from colleagues than those people who work in quasi teams. Hypothesis 4c was fully supported, team members were significantly more satisfied with all support types than those in quasi teams.

Summary of Direct Relationships

The previous section, hypotheses 1-4, explored the direct relationship between team working and well-being outcomes, work stressors and social support. The results provide support for the following: Being in a team predicts greater:

- Job satisfaction
- Well-being
- Organisational commitment
- Influence
- Satisfaction with manager support
- Satisfaction with colleagues support
- All seven types of support.

However being in a team did not account for a great deal of variance in the outcome variables, (job satisfaction, well-being and organisational commitment) suggesting that the relationship may be mediated by influence or satisfaction with social support types or satisfaction with support from the manager or colleagues. The following analyses include those variables which are associated with working in a team. The following hypotheses address the more complex relationships between these variables; social support and influence mediating the relationship between being in a team and well-being outcomes.

Hypothesis 5

The relationship between working in a team and well-being outcomes will be mediated by satisfaction with social support source and satisfaction with social support type.

Figure 9.15. The theoretical model highlighting relationships tested in hypothesis 5
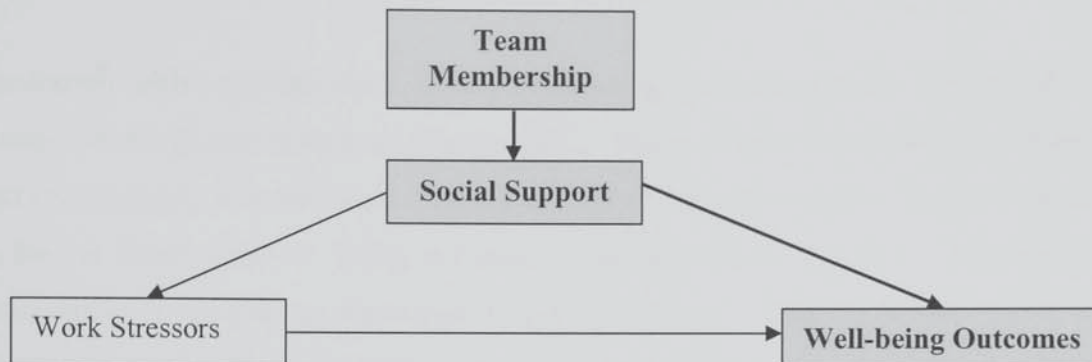
Due to the nature of the social support scale (non-independent items), factors based on the aggregation of the support items could not be examined in the same calculations. In practical terms this means that social support source and type could not be considered together.

Recognition of the importance of mediator variables in psychology has long been recognised (Baron & Kenny, 1986). The concept of a mediator variable is one "which represents a generative mechanism through which the focal variable is able to influence the dependent variable of interest" (Baron & Kenny, 1176: 1986). Thus suggesting casual direction; the focal variable has an effect on the mediator variable which in turn has an effect on the dependent variable.

The mediation method, according to Baron and Kenny (1986) was followed to conduct this stage of analysis. As shown earlier (Hypothesis 1) there is a direct relationship between team working and job satisfaction, teamwork and well-being, and teamwork and organisational commitment: the relationship between the explanatory variable and the dependent variables. Also established is the relationship between the explanatory variable and the mediator variables (team working and social support) (Hypothesis 4) with the exception of satisfaction with team support. When the third stage, the mediation regression

is not significant full mediation is implied. If the regression is still significant but substantially less variance in the dependent variable is explained than in the direct relationship between the focal and dependent variable then there is partial mediation. Partial mediation therefore implies that some of the effect of the focal variable on the dependent variable is thought the mediator, but a direct effect is also present.

The mediation tables contain three columns; detailing the standardised beta weights (β), significance level ($\underline{P}$) and R-squared change (ΔR^2). Stage 1a and 1b provide data relating to the direct relationship between team working and the dependent variable. Stage 1b gives the results for the direct effect of being in a team on the dependent variable. These tables are presented earlier in the chapter when presenting hypotheses 1. Stage 2a and 2b represent the mediation regression. 2a is the entry of the mediator variables, and 2b shows the effect of the explanatory variable on the dependent variable having accounted for the variance explained by the mediator variable.

The mediation tables are grouped by dependent variables and presented in the following order: job satisfaction, well-being and organisational commitment. Social support source will be presented in each section followed by social support type. Due to pragmatic reasons not all the regression tables are presented in this chapter, a selection are presented in appendix 5, page 370. The following process was carried out, satisfaction with social support source and type were each entered individually into the regression (it is these regressions which can be found in appendix 5); then those support variables which mediated the relationship between team working and the dependent variable individually were entered in a forward method. It is these regression tables that are detailed in the forthcoming results. Source and type remain separated (see chapter 8 for discussion).

Job satisfaction Mediation Tables

Source of Support

When the social support source variables were entered separately in to the mediation regression, the results revealed that satisfaction with manager support (p=0.556; ΔR^2= .001) and satisfaction with colleague support (p=0.068; ΔR^2= .000) fully mediate the relationship between working in a team and job satisfaction. Thus partially supporting hypothesis 5a.

In order to see the differential impact of satisfaction with manager and satisfaction with colleague support, the two sources were entered together in a stepwise regression analysis.

The results show being in a team accounted for 2.1% of the variance in job satisfaction, once the effect of manager and colleague support has been accounted for, being in a team does not account for any additional variance in job satisfaction, beyond that explained by support. The relationship between being in a team and job satisfaction is therefore fully mediated by satisfaction with manager and colleague support, therefore partially supporting hypothesis 5.

Table 9.18. Satisfaction with manager support and colleague support mediating the relationship between team and job satisfaction

	DV: Job Satisfaction	β	P	ΔR^2
1a	**Controls:**			
	area manager	.164		
	branch manager	.059		
	hours over none	.126		
	hours over 1-3	.089		
	hours over 4-6	.001		
	hours over 7-9	.136		
	sex	.144		
	time in role	-.244		
	type of contract	-.032		.118
1b	Team	-.149	.009	.021
2a	Sat manager support	.503	.000	
	Sat colleague support	.178	.000	.447
2b	Team	-.017	.725	.000
	Total R^2			.447

Type of support

When the social support type variables were entered separately in to the mediation regression, the results revealed that satisfaction with task appreciation ($p=0.289$; $\Delta R^2 = .002$), task challenge ($p=0.556$; $\Delta R^2 = .003$), practical assistance ($p=0.333$; $\Delta R^2 = .003$), reality check ($p=0.084$; $\Delta R^2 = .007$), emotional support ($p=0.371$; $\Delta R^2 = .002$), emotional challenge ($p=0.203$; $\Delta R^2 = .003$) and listening support ($p=0.099$; $\Delta R^2 = .006$) mediate the relationship between working in a team and job satisfaction, thus supporting hypothesis 5.

In order to see the differential impact of satisfaction with the seven types of support, they were entered all together in a stepwise regression analysis.

The results show being in a team accounted for 2.1% of the variance in job satisfaction, once the effect of satisfaction with task appreciation and emotional challenge have been accounted for, being in a team only accounts for 0.01% of additional variance in job satisfaction, beyond that explained by support. The relationship between being in a team and job satisfaction is therefore fully mediated by satisfaction with task appreciation and emotional challenge. Satisfaction with task challenge, practical assistance, reality check, emotional support and listening support do not explain any variance beyond that explained by task appreciation and emotional challenge.

Table 9.19. Satisfaction with task appreciation and emotional challenge mediating
the relationship between team and job satisfaction

	DV: Job Satisfaction			
		β	P	ΔR^2
1a	**Controls**			
	area manager	.164		
	branch manager	.059		
	hours over none	.126		
	hours over 1-3	.089		
	hours over 4-6	.001		
	hours over 7-9	.136		
	sex	.144		
	time in role	-.244		
	type of contract	-.032		.118
1b	**Team**	-.149	.009	.021
2a	TA satisfaction	.355	.000	
	EC satisfaction	.311	.000	.467
2b	Team	-.032	.478	.001
	Total R^2			.468

Mediation tables for well-being

Source of support

When the social support source variables were entered separately in to the mediation regression, the results revealed that satisfaction with manager support (p=0.281; ΔR^2= .003), and satisfaction with colleague support (p=0.080; ΔR^2= .010) mediate the relationship between working in a team and job satisfaction, thus partially supporting hypothesis 5.

In order to see the differential impact of satisfaction with manager and satisfaction with colleague support, the two sources were entered together in a stepwise regression analysis.

Table 9.20. Satisfaction with manager support mediating the relationship between team and well-being

	DV: Well-Being	β	P	ΔR^2
1a	**Controls**			
	area manager	.002		
	branch manager	-.060		
	hours over none	.156		
	hours over 1-3	.058		
	hours over 4-6	.053		
	hours over 7-9	.104		
	sex	-.050		
	time in role	-.269		
	type of contract	-.065		
1b	**Team**	-.130	.025	.016
2a	Sat manager support	.303	.000	.165
2b	Team	-.069	.237	.005
	Total R^2			.170

The results show being in a team accounted for 1.6% of the variance in well-being, once the effect of manager support had been accounted for, being in a team only accounts for 0.05% additional variance in well-being, beyond that explained by support. The relationship between being in a team and well-being is therefore fully mediated by satisfaction with manager and colleague support. Satisfaction with colleague support did not account for any additional variance beyond that explained by satisfaction with manger support.

Type of support

When the social support type variables were entered separately in to the mediation regression, the results revealed that satisfaction with task appreciation (p=0.203; ΔR^2= .005), task challenge (p=0.163; ΔR^2= .005), practical assistance (p=0.183; ΔR^2= .005), reality check (p=0.095; ΔR^2= .008), emotional support (p=0.225; ΔR^2= .004), emotional challenge (p=0.164; ΔR^2= .006) and listening support (p=0.095; ΔR^2= .008) mediate the relationship between working in a team and well-being, thus supporting hypothesis 5.

In order to see the differential impact of satisfaction with the seven support types, they were all entered together in a stepwise regression analysis.

Table 9.21. Satisfaction with types of support mediating the relationship
between team and well-being

	DV: Well-Being			
		β	P	ΔR^2
1a	Controls			
	area manager	.002		
	branch manager	-.060		
	hours over none	.156		
	hours over 1-3	.058		
	hours over 4-6	.053		
	hours over 7-9	.104		
	sex	-.050		
	time in role	-.269		
	type of contract	-.065		
1b	Team	-.130	.025	.016
2a	TC satisfaction	.208	.000	
	TA satisfaction	.180	.013	.212
2b	Team	-.064	.243	.004
	Total R^2			.215

The results show being in a team accounted for 1.6% of the variance in well-being, once the effect of satisfaction with task challenge and appreciation have been accounted for, being in a team only accounts for 0.04% additional variance in well-being, beyond that explained by support. The relationship between being in a team and well-being is therefore fully mediated by satisfaction with task challenge and appreciation. Satisfaction with practical assistance, reality check, emotional support, emotional challenge and listening support do not explain any additional variance in well-being beyond that explained by task challenge and appreciation.

Mediation in Organisational commitment

Source of support

When the social support source variables were entered separately in to the mediation regression, the results revealed that satisfaction with manager support ($p=0.194$; $\Delta R^2 = .004$) mediates the relationship between working in a team and organisational commitment, thus in part supporting hypothesis 5.

Table 9.22. Manager support mediating the relationship between team and organisational commitment

	DV: Organisational Commitment			
		β	**P**	ΔR^2
1a	**Controls**			
	area manager	.102		
	branch manager	.091		
	hours over none	-.068		
	hours over 1-3	-.056		
	hours over 4-6	-.008		
	hours over 7-9	.041		
	sex	.057		
	time in role	-.211		
	type of contract	.053		
1b	Team	-.153	.007	.022
2a	Sat manager support	.398	.000	.266
2b	Team	-.069	.194	.004
	Total R^2			.270

The results show being in a team accounted for 2.2% of the variance in organisational commitment, once the effect of manager support had been accounted for, being in a team only accounts for 0.04% additional variance in organisational commitment, beyond that explained by manager support. The relationship between being in a team and organisational commitment is therefore fully mediated by satisfaction with manager.

Type of Support

When the social support type variables were entered separately in to the mediation regression, the results revealed that satisfaction with task appreciation ($p=0.132$; $\Delta R^2= .006$), task challenge ($p=0.084$; $\Delta R^2= .008$), practical assistance ($p=0.070$ $\Delta R^2= .009$), emotional support ($p=0.128$; $\Delta R^2= .006$), and emotional challenge ($p=0.301$; $\Delta R^2= .009$) mediate the relationship between working in a team and organisational commitment, therefore partially supporting hypothesis 5. Satisfaction with reality check and listening support do not mediate this relationship.

In order to see the differential impact of satisfaction task appreciation, task challenge, practical assistance, emotional support and emotional challenge, the six types were entered together in a stepwise regression analysis.

Table 9.23. Satisfaction with types of support mediating the relationship between team and organisational commitment

	DV: Organisational Commitment			
		β	**P**	ΔR^2
1a	**Controls**			
	area manager	.102		
	branch manager	.091		
	hours over none	-.068		
	hours over 1-3	-.056		
	hours over 4-6	-.008		
	hours over 7-9	.041		
	sex	.057		
	time in role	-.211		
	type of contract	.053		
1b	**Team**	-.153	.007	.022
2a	TA satisfaction	.263	.000	
	TC satisfaction	.202	.004	.296
2b	Team	-.073	.161	.005
	Total R^2			.301

The results show being in a team accounted for 2.2% of the variance in organisational commitment, once the effect of satisfaction with task challenge and appreciation have been accounted for, being in a team only accounts for 0.05% additional variance in organisational commitment, beyond that explained by support. The relationship between being in a team

and organisational commitment is therefore fully mediated by satisfaction with task appreciation and challenge. Satisfaction with practical assistance, reality check, emotional support, and emotional challenge do not explain any additional variance in organisational commitment beyond that explained by task appreciation and challenge.

Summary of Hypothesis 5

Social support source

Satisfaction with manager support mediates the relationship between team working and job satisfaction, well-being and organisational commitment, satisfaction with colleague support mediates the relationship between team working and job satisfaction.

Type of support

Satisfaction with task appreciation mediates the relationship between team working and job satisfaction, well-being and organisational commitment. Satisfaction with task challenge mediates the relationship between team working and well-being and team working and organisational commitment, and satisfaction with emotional challenge mediates the relationship between team working and job satisfaction.

Hypothesis 6

The relationship between working in a team and work stressors will be mediated by satisfaction with social support source and satisfaction with social support type.

Previous regressions showed that working in a team predicted satisfaction with support from the manager, and colleagues and satisfaction with the seven types of support. A direct relationship was also established between teamwork and influence. Therefore to test for social support mediating the relationship between teamwork and work stressors, influence is the only work stressor variable which needs to be considered.

Figure 9.16 The theoretical model highlighting relationships tested in hypothesis 6
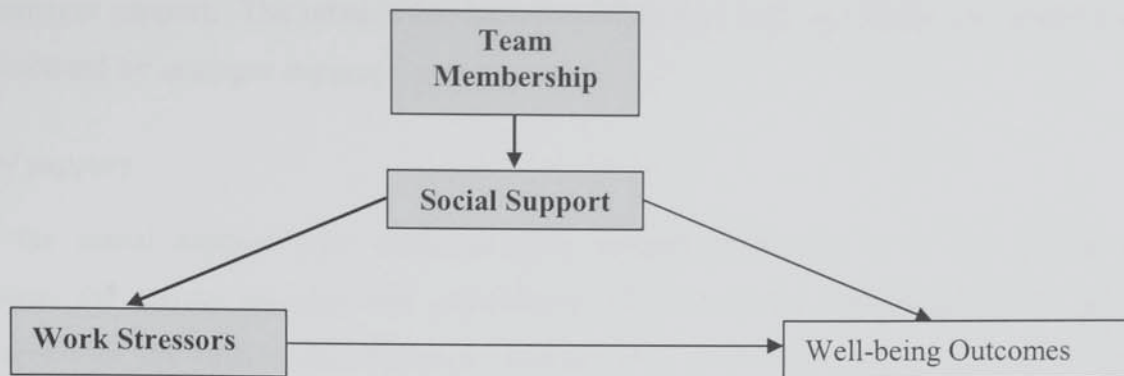
Source of support

When the social support source variables were entered separately in to the mediation regression, the results revealed that satisfaction with manager support (p=0.110; ΔR^2= .006) mediates the relationship between working in a team and influence. Thus partially support hypothesis 6. Satisfaction with colleague support does not mediate the relationship between team working and influence.

Table 9.24.Manager support mediating team and influence

	DV: Influence	β	**P**	ΔR^2
1a	**Controls** area manager branch manager hours over none hours over 1-3 hours over 4-6 hours over 7-9 sex time in role type of contract	.143 .216 .064 -.083 -.069 .031 -.088 -.227 .064		.127
1b	**Team**	-.174	.002	.029
2a	Manager support	.438		.195
2b	Team	-.082	.110	.006
	Total R^2		.029	.328

The results show being in a team accounted for 2.9% of the variance in influence, once the effect of satisfaction with manager support had been accounted for, being in a team only

accounts for 0.06% additional variance in influence, beyond that explained by satisfaction with manager support. The relationship between being in a team and influence is therefore fully mediated by manager support.

Type of support

When the social support type variables were entered separately in to the mediation regression, the results revealed that satisfaction with emotional support ($p=0.060$; $\Delta R^2=$ .009) mediates the relationship between working in a team and influence, thus in part supporting hypothesis 6.

Table 9.25. Satisfaction with emotional support mediating the relationship between being in a team and influence

	DV: Influence		β	**P**	ΔR^2
1a	**Controls**				
	area manager		.143		
	branch manager		.216		
	hours over none		.064		
	hours over 1-3		-.083		
	hours over 4-6		-.069		
	hours over 7-9		.031		
	sex		-.088		
	time in role		-.227		
	type of contract		.064		.127
1b	**Team**		-.174	.002	.029
2a	ES satisfaction		.373	.000	.132
2b	Team		.101	.060	.009
	Total R^2				.267

The results show being in a team accounted for 2.9% of the variance in influence, once the effect of satisfaction with emotional support had been accounted for, being in a team only accounts for 0.09% additional variance in influence, beyond that explained by emotional support. The relationship between being in a team and influence is therefore fully mediated by emotional support.

Hypothesis 7

The relationship between satisfaction with social support source, and type and well-being outcomes will be mediated by work stressors.

Figure 9.17. The theoretical model highlighting relationships tested in hypothesis 7
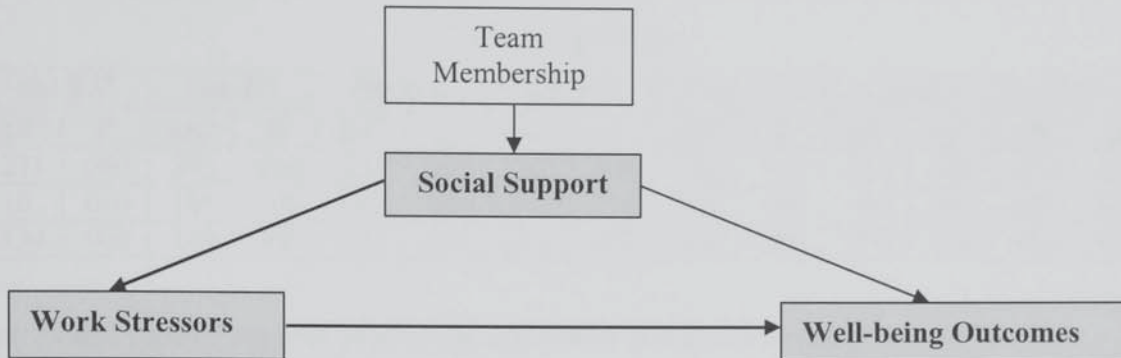
The mediation method, according to Baron and Kenny (1986) was followed to conduct this stage of analysis. First it is necessary to establish relationships between and explanatory and outcome variables (stage 1). For pragmatic reasons these regressions are displayed in appendix 5, page 370, and a summary provided in this chapter. The second stage of testing for mediation involved establishing the relationships between the explanatory and mediator variables, again for pragmatic reasons these are displayed in appendix 5, page 393, and a summary provided in this chapter. Following these initial two stages the mediation regression are presented.

Stage 1: The direct effect of social support on well-being outcomes.

Source of support

The direct effect of the source of support on job satisfaction, well-being and organisational commitment was explored using regression analyses.

Table 9.26. The R^2 change and probability for the direct effect of social support sources on well-being outcomes

	Satisfaction manager support		Satisfaction colleague support	
	R^2 change	p	R^2 change	p
Job satisfaction	.298	.000	.098	.000
Well-being	.099	.000	.030	.003
Organisational Commitment	.142	.000	.063	.000

Type of Support

The direct effect of the type of support on job satisfaction, well-being and organisational commitment was explored using regression analyses.

Table 9.27. The R^2 change and probability for the direct effect of social support types on well-being outcomes

	Sat TA		Sat TC		Sat PA		Sat RC		Sat ES		Sat EC		Sat LS	
	ΔR^2	P	ΔR^2	P	ΔR^2	p	ΔR^2	p	ΔR^2	p	ΔR^2	p	ΔR^2	p
JS	.271	.000	.245	.000	.231	.000	.192	.000	.225	.000	.252	.000	.185	.000
WB	.10	.000	.105	.000	.092	.000	.066	.000	.078	.000	.092	.000	.055	.000
OC	.154	.000	.140	.000	.083	.000	.074	.000	.100	.000	.098	.000	.088	.000

All sources and type of support predict the three well-being outcomes.

Stage 2: The direct effect of social support on influence

The second part of mediation analysis requires that there is a direct relationship between the explanatory variable and the mediator variable. The following regressions show the direct effect of social support on work stressors. Source of support will be presented first followed by type of support.

Source of support

Table 9.28. Direct effect of social support types on work stressors

	Satisfaction manager support		Satisfaction colleague support	
	R^2 change	P	R^2 change	p
Influence	.173	.000	.050	.000

Type of support

Table 9.29. Direct effect of social support types on well-being outcomes

	Sat TA		Sat TC		Sat PA		Sat RC		Sat ES		Sat EC		Sat LS	
	ΔR^2	P	ΔR^2	p	ΔR^2	p	ΔR^2	p	ΔR^2	p	ΔR^2	p	ΔR^2	p
Inf	.128	.000	.126	.000	.126	.000	.109	.000	.112	.000	.117	.000	.085	.000

Mediation

The previous two stages of analysis have established a direct relationship between satisfaction with specific social support types and source and well-being, job satisfaction and organisational commitment; and satisfaction with specific social support sources and types and influence, the third stage is to test for mediation of those significant relationships.

Source of support

When the social support sources were entered separately into the regression equation, the effect of support on the dependent variable was still significant after the effect of the work stressors had been accounted for. Therefore suggesting that the relationship between satisfaction with social support sources, and well-being outcomes and influence are not fully mediated. However in each case there was a reduction in the variance accounted for in well-being outcomes by the support source by approximately 50%, this would suggest partial mediation. These tables are displayed in full in appendix 5, page 370.

Type of support

When the social support types were entered separately into the regression equation, the effect of support on the dependent variable was still significant after the effect of the work stressors had been accounted for. Therefore suggesting that the relationship between satisfaction with social support types, and well-being outcomes and influence are not fully mediated. However in each case there was a reduction in the variance accounted for in well-being outcomes by the support types by approximately 50%, this would suggest partial mediation. These tables are displayed in full in appendix 5, page 370.

Regression Summary

The above eight hypotheses tested relationships between team working, social support, influence and well-being outcomes. Regression analyses enabled exploration of the associations between variables. The results support a mediated relationship between being in a team and satisfaction with manager support and well-being outcomes; being in a team and satisfaction with colleague and job satisfaction. The results also support a mediated relationship between being in a team, satisfaction with manager support and influence; and

being in a team, satisfaction with emotional support and influence. And finally, the results supported a mediated relationship between satisfaction with colleague support, influence and well-being. In order to view the model as a whole, to see how well the data fits the original model, further analysis in the form of confirmatory path analysis was performed.

Confirmatory Path Analysis

The analysis so far has tested direct and mediated relationships in the proposed model. Two sets of path analyses were carried out to test the model as a whole. These were confirmatory path analyses based on the proposed theoretical model, using the results from the hierarchical regression analyses. "Path analysis is a technique that uses ordinary least squares regression to help the researcher test the consequences of proposed causal relationships among a set of variables" (Billings & Wroten, 1978: 677). The use of path analyses assumes causality, which cannot be confirmed, as the study is cross-sectional. However, the directions of causality fit with the theory and have been inferred from previous research, which was in some cases longitudinal.

Preliminary Analysis

The path diagram includes the variable influence, which in the model is proposed to impact on well-being outcomes. However the analysis thus far have not tested for this relationship. The following regression analyses examine the direct effect of influence on well-being, job satisfaction and organisational commitment, after controlling for the effect of being in a team and satisfaction with manager support (source of support regression); and controlling for being in a team and satisfaction with emotional support (type of support regression): the variables in the model prior to influence.

Source of support

Table 9.30. The direct effect of influence on well-being outcomes

DV		Job Satisfaction	Well-being	Organisational Commitment
1	**Controls β:**			
	area manager	.060	-.061	.035
	branch manager	-.063	-.136	.017
	hours over none	.060	.118	-.112
	hours over 1-3	.107	.071	-.049
	hours over 4-6	-.008	.051	-.021
	hours over 7-9	.097	.081	.031
	sex	.185	-.024	.081
	time in role	-.089	-.174	-.112
	type of contract	.000	-.050	-.083
	team	-.001	-.043	-.056
	sat manager support	.435	.238	.327
	Change in R^2	.437	.194	.270
2	**IV β: Influence**	.320	.215	.161
	Change in R^2	.069	.031	.018
	Total R^2	.505	.225	.287
	Sig level	.000	.001	.009

Influence therefore has a direct effect on job satisfaction, well-being and organisation after controlling for the effects of being in a team and satisfaction with manger support. These paths will therefore be included in the path analysis.

Type of support

Table 9.31. The direct effect of influence on well-being outcomes

DV		Job Satisfaction	Well-being	Organisational Commitment
1	**Controls β:**			
	area manager	.069	-.057	.043
	branch manager	.012	-.093	.070
	hours over none	.052	.112	-.116
	hours over 1-3	.112	.073	-.044
	hours over 4-6	-.001	.054	-.014
	hours over 7-9	.092	.078	.011
	sex	.172	-.031	.072
	time in role	-.133	-.199	-.145
	type of contract	-.029	-.066	.059
	team	-.006	-.044	-.062
	sat emotional support	.362	.206	.256
	Change in R^2	.363	.173	.227
2	**IV β: Influence**	.386	.249	.218
	Change in R^2	.109	.045	.035
	Total R^2	.473	.218	.262
	Sig level	.000	.000	.000

Influence therefore has a direct effect on job satisfaction, well-being and organisation after controlling for the effects of being in a team and satisfaction with emotional support. These paths will therefore be included in the path analysis.

Confirmatory Path Analysis

Data relating to several measures of fit are given below; these are the CFI: comparative fit index, TLI: Tucker-Lewis coefficient and the RMSEA: root mean square error of aproximation . These indicise allow the proposed model to be compared to a badly fitting baseline model or independence model. The CFI (Bentler, 1990) range lies between zero and one, such that values closer to one indicte a very good fit. For the RMSEA index, a value of 0.05 and below indicates a very good fit, while .08 represents a good fit (Williams, Ford & Nyugen, 2002). The TLI also has a typical range between zero and one, and again values nearer to one indicate a very good fit. Bentler and Bonnet, (1980) suggest that models with a fit of below 0.9 have potenital for improvement. Within the literature there is

no indication to a value at which a model should be rejected. The standardised regression weights are included in the diagram and the table overleaf.

Figure 9.18. Confirmatory path analysis: Source of support
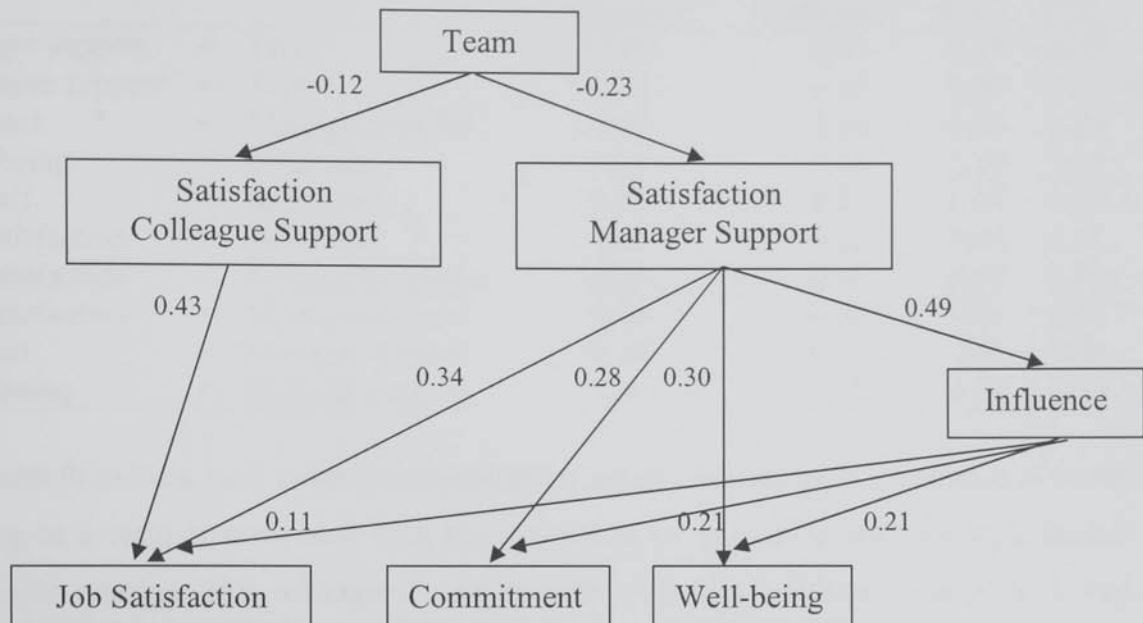
Table 9.32. Model fit indecies for source of support model

Fit Index	Value
Chi-squared	15.596
Degrees of freedom	7
Probability	0.029
TLI	0.995
RMSEA	0.064
CFI	0.999

The table overleaf gives the values of the standardised regression weights, regression weights, standard error, critical value ratio (equivalent to the t value in hierarchal regression), and the significance level.

Table 9.33. Regression weights, standard error and probability for relationships in the Source of support model

			Standardised Regression Weights	Regression Weights			
			Estimate	Estimate	S. E.	C.R.	P
Manager support	←	Team	-0.23	-0.43	0.11	-4.07	0
Colleague support	←	Team	-0.12	-0.19	0.09	-2.03	0.04
Influence	←	Manager support	0.49	0.49	0.05	9.79	0
Well-being	←	Influence	0.21	0.16	0.04	3.49	0
Commit	←	Influence	0.21	0.14	0.04	3.66	0
Job satisfaction	←	Influence	0.11	0.22	0.04	6.07	0
Job satisfaction	←	Colleague support	0.43	0.10	0.03	2.89	0
Job satisfaction	←	Manager support	0.34	0.32	0.04	8.58	0
Commit	←	Manager support	0.28	0.23	0.04	5.88	0
Well-being	←	Manager support	0.30	0.21	0.04	4.66	0

The model fit indices, beta weights and probability suggest a good fit of the proposed model. Working in a team is associated with the experience of greater satisfaction with support from one's manager and colleagues. Satisfaction with support from colleagues is then associated with a greater sense of job satisfaction, while satisfaction with manager support is associated with a greater sense of job satisfaction, well-being, organisational commitment and influence which in turn is associated with a greater sense of these outcomes.

Figure 9.19. Confirmatory path analysis: Type of support
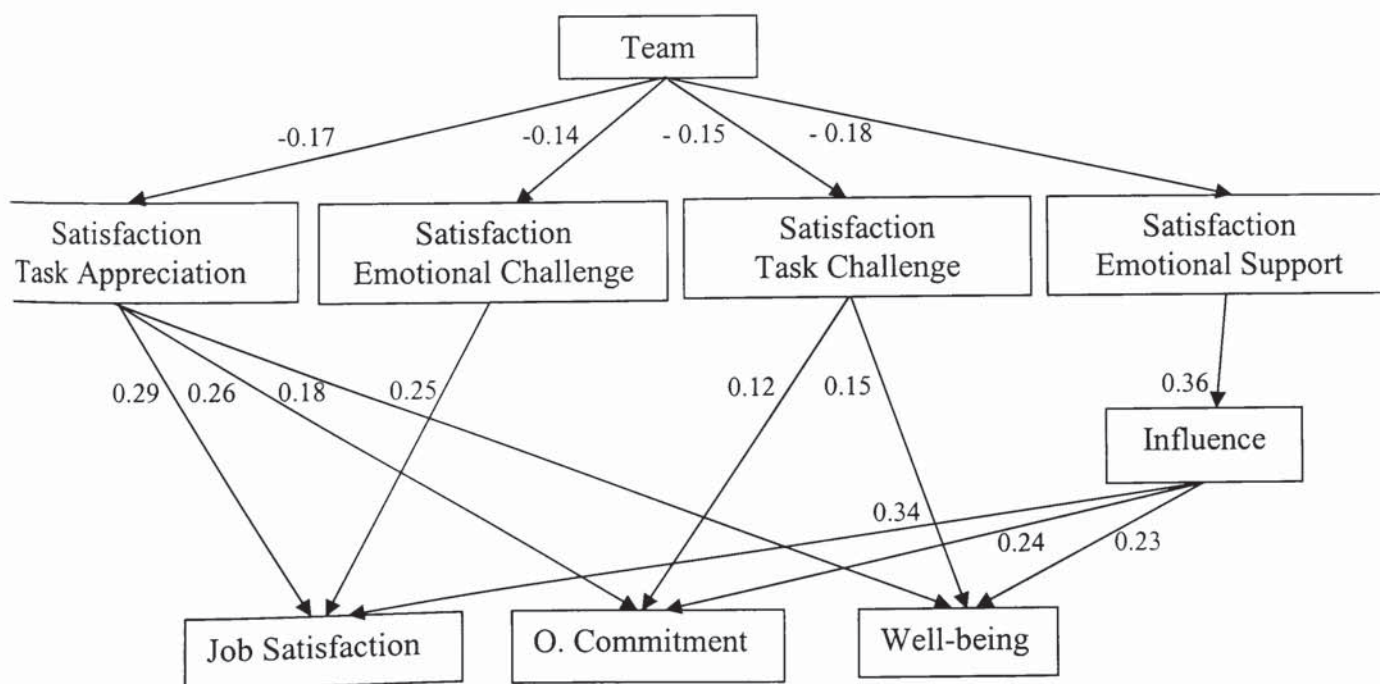
Table 9.34. Model fit indecies for type of support model

Fit Index	Value
Chi-squared	37.057
Degrees of freedom	13
Probability	0.000
TLI	0.991
RMSEA	0.079
CFI	0.997

The table below gives the values of the standardised regression weights, regression weights, standard error, critical value ratio (equivalent to the t value in hierarchal regression), and the significance level.

Table 9.35. Regression weights, standard error and probability for relationships in the type of support model

			Standardised Regression Weights	Regression Weights			
			Estimate	Estimate	S. E.	C.R.	P
Sat ES	←	Team	-0.18	-0.30	0.09	-3.24	.001
Sat EC	←	Team	-0.14	-0.20	0.08	-2.43	.015
Sat TC	←	Team	-0.15	-0.23	0.09	-2.56	.010
Sat TA	←	Team	-0.17	-0.24	0.08	-2.91	.004
Influence	←	Sat ES	0.36	0.42	0.06	6.60	.0
Well-being	←	Influence	0.23	0.17	0.04	4.19	0
O. Commitment	←	Influence	0.24	0.16	0.03	4.60	0
Job satisfaction	←	Influence	0.34	0.25	0.03	7.63	0
Well-being	←	Sat TC	0.15	0.13	0.06	2.10	.036
Commit	←	Sat TC	0.12	0.10	0.05	1.82	.069
Job satisfaction	←	Sat EC	0.25	0.24	0.05	5.23	0
Job satisfaction	←	Sat TA	0.29	0.27	0.05	5.45	0
O. Commitment	←	Sat TA	0.26	0.22	0.06	3.66	0
Well-being	←	Sat TA	0.18	0.17	0.07	2.45	.014

The fit indices suggest a good fit of the proposed model. This model suggests that working in a team is associated with greater satisfaction with task appreciation, emotional challenge, task challenge and emotional support. Satisfaction with task appreciation is associated with a greater experience of job satisfaction, organisational commitment and well-being. Satisfaction with emotional challenge is associated with a greater sense of job satisfaction.

Satisfaction with task challenge is associated with a greater experience of organisational commitment and well-being, while satisfaction with emotional support is associated with a greater sense of influence at work, which is associated with a greater experience of job satisfaction, well-being and organisational commitment.

Summary

Anova and regression analyses were used to investigate the hypotheses. Firstly direct relationships between study variables were explored, followed by social support mediating the relationship between working in a well-defined team and well-being outcomes; and social support mediating the relationship between working in a well-defined team and stressors.

The results provide support for hypothesis 1, people who work in teams experience greater well-being, job satisfaction and organisational commitment.

The results only in part support hypothesis 2. Working in a team is associated with experiencing higher levels of influence, however team working did not have a positive effect on any other work stressors.

Hypotheses 3 and 4 were partly supported, people who work in a team reported greater satisfaction with support from colleagues, their manager and all types of support.

Hypothesis 5 was supported, social support mediated the relationship between team working and well-being outcomes.

Hypothesis 6 was in part supported, satisfaction with manager support mediated the relationship between working in a team and influence, and satisfaction with emotional support mediated the relationship between working in a team and influence.

Hypothesis 7 was only partially supported; influence did not fully mediate the relationship between social support and well-being outcomes, however partial mediation was evident.

The overall results were entered into two confirmatory path analyses, one representing source of support, the second, type of support; the fit results suggest that the models illustrate a good fit of the data. Team working is associated with satisfaction with colleague support which is associated with job satisfaction, team working is also associated with manager support which is associated with job satisfaction, organisational commitment, well-being and influence. Influence is associated with all outcome variables. In terms of the type of support; working in a team is associated with satisfaction with task appreciation which is associated with job satisfaction, organisational commitment and well-being, satisfaction with task challenge which is associated with organisational commitment and well-being, satisfaction with emotional challenge which is associated with job satisfaction and with emotional support which is associated with influence, which is associated with the outcome variables.

Discussion

Working in a Team

Respondents were categorised as working in a team or a quasi team depending on their responses to five questions. All respondents within the sample responded positively to the question "do you work as part of a clearly defined team?" In order to be categorised as working in a team the respondent then had to answer yes to the remaining four questions. If the respondent answered no to one of these questions they were categorised as a quasi team member. The specific items are listed in Chapter 8, page 128.

The results provide evidence that belonging to a well-defined team is associated with better well-being, job satisfaction and organisational commitment. Those employees who work in well-defined teams differ from those in quasi teams in terms of four functional characteristics: clear team objectives; interdependence; specific roles; and recognition from people beyond the team that the work unit are a team. Gersick and Hackman (1990) and Weingart (1989) in their studies of group performance provided evidence of the importance of clear, shared, and valued objectives. The influence of work task design, role

differentiation and interdependence has been considered in the team effectiveness literature. Interdependence is associated with increased motivation (Wong & Campion, 1991), and performance (Woodman & Sherwood, 1980). Recognition in terms of support for the team from the organisation is suggested to have an impact on commitment and reduce absenteeism (Eisenberger, Huntington, Hutchison & Sowa, 1986). When these four factors are present the team is termed well-defined, working in a well-defined teams is associated with many positive outcomes, such as well-being and social support. Members of teams and quasi teams both perceive that they work in a team, both responding positively to the question "do you work in a well-defined team?" Resulting differences between the two groups are therefore a consequence of responses to the subsequent questions. When exploring the quasi team responses in detail, the descriptive statistics reveal that the most common aspect in which the quasi teams do not fulfil the criteria of a clearly defined team is in relation to there being different roles for individuals within the team. In the Post Office context, differences in team / quasi team therefore result from the way in which work is organised, which is the responsibility of the management. A subtle difference in team functional characteristics accounted for significant and potentially critical differences in employee well-being, job satisfaction and organisational commitment. This finding supports the work carried out by Carter (2000) in the NHS on secondary health care teams. Thus, there are important implications for management when introducing team based work structures to ensure that the benefits of team working result, and that these benefits are beyond performance, relating to aspects of individual health and attitudes towards their work and the organisation.

Social Support

Significant and potentially key differences in satisfaction with social support were noted as a result of the team/quasi team structure. At the most detailed level, considering the individual sources of support with the types of support they provide, team members are significantly more satisfied with all types of support from the manager than those in quasi teams. There were no significant differences in satisfaction with support types from team members between teams and quasi teams, although this source of support received the highest values for satisfaction in both teams and quasi team. Team members reported

greater satisfaction with all types of support from colleagues with the exception of listening support. The relative satisfaction with each type from each source differs between teams and quasi teams, thus suggesting team members engage in different processes or behaviours as a consequence of differences in team/quasi team functional characteristics, which impacts on satisfaction with support. The results provide a unique insight into satisfaction with support types distinguishing between people at work in terms of colleagues and team members that has not previously been reported.

Rosenfeld et al., (1989) found clear distinctions between the source of support and the type of support they provided, reporting a "bifurcation in overall support functions" (pg. 138): those support types requiring the provider to have expertise in the field and those not requiring such expertise. When considering satisfaction with support as opposed to amount such a distinction was apparent, for example satisfaction with task appreciation from all sources was reported. This difference is a result of a subtle difference in the measurement of support, i.e. amount and satisfaction. As discussed in chapter two the concepts are different and subsequent findings are often unrelated (Helgeson, 1993), this study therefore further supports this premise. Developing the findings of Rosenfeld et al., (1989), this study also therefore suggests that satisfaction with support is not dependent on the amount of support. For instance, an individual may not want to receive a certain type of support from his/her manager and when he/she does not receive that support from this source they are satisfied. It is intuitive that satisfaction with support will be more strongly related to positive outcomes such as well-being, than assessing the amount of support, which does not take into account the needs of the individual.

At the aggregation level, satisfaction with support source and satisfaction with support type are different in teams and quasi teams. Employees working in well-defined teams report greater satisfaction with manager and colleague support than those in quasi teams. A possible explanation is that the manager creates a certain climate within a Branch, which impacts on staff external to the team, who, as a consequence are more sensitive to the support needs of others than in quasi teams in which there is less satisfaction with manager support and colleague support. The leadership literature offers support for the impact of

social support from the manager. Howell and Costley (2001) suggest that supportive leaders make the workplace a more attractive place, as employee needs for security, acceptance and esteem are met. Employees also feel empowered as a consequence of support, which in turn is associated with perceived influence (Howell & Costley, ibid). The relationship between leaders and subordinates is a two way process, therefore a alternative explanation is possible: employees with high self-esteem behave in ways to instigate a positive response from the leader (Buunk & Hoorens, 1992). Relationships with supervisors can also be a source of stress (Van Dierkendonk et al, in preparation), therefore in teams where managers are supportive this potential stressor is reduced, which may also account for some of the variance in well-being experienced by those people in teams. Beyond the interpersonal benefits associated with supportive leaders, Larson and LaFastso (1989) propose that a component of a successful team is the presence of an effective leader, Knob (1996) supports this proposition, reporting a link between competent leaders and team performance. Through either mechanism, the key role of a supportive manager and the potential positive outcomes associated with such a leadership style are apparent.

It was surprising to find that those individuals who work in teams did not report greater satisfaction with the support they receive from team members compared to those who worked in less well-defined teams. It was hypothesised that there would be more incentive to help fellow team members and therefore they would be more supportive. It was thought that the extent of this support would reflect the degree to which they are a team. This would suggest that when individuals are required to work with each other, the extent to which they have clear roles, objectives and recognition (the functional characteristics present in a well-defined team) does not influence the supportive interactions and relationships within the teams therefore there are no statistically significant differences between the two groups for satisfaction with support from team members. The results suggest that belonging to a team and the associated camaraderie is sufficient to prompt social support within the team. Alternatively, a compensatory model may be applicable, whereby, as quasi team members are less satisfied with support from their manager, as a reaction they are more aware of the support needs of their fellow team members recognising that the support will not be provided by the manager.

In relation to team working and groups of people that team members may interact with on a daily basis, it was observed that while an employee may work in a team it is possible that he/she may not view him/herself as having colleagues. This may depend on the organisation of the branch office (some roles may not require interaction with the Royal Mail employees, or staff may chose not to associate with other people than their team and therefore not see themselves as having colleagues, e.g. one respondent wrote that they counted the cleaner as a colleague). This accounts for the reduction in responses to the questions regarding colleague support.

In relation to satisfaction with support types, those people working in teams reported greater satisfaction with all types of support. Further analysis suggested that satisfaction with task appreciation, task challenge, emotional support and emotional challenge accounted for unique variance in the outcome variables. Therefore support in terms of task focused and emotional focused discriminate between teams and quasi teams. The task appreciation and emotional support aspects of support promote positive individual outcomes, as the individual feels valued, which has positive consequences for self-esteem. The challenging support types are a riskier form of support as they involve questioning the individual, and may therefore result in the individual feeling attacked. If carried out successfully challenging support types may have the potential to develop the individual, helping them to identify aspects of their job or their emotional understanding which could be altered resulting in increased effective task execution or greater emotional understanding of themselves in relation to others around them. Social support is therefore related to the functioning of the team as proposed by Applegate and Zimmerman (1992).

Work Stressors

Being in a well-defined team was not associated with higher levels of feedback, role clarity, control, job security, or lower levels of role conflict, and work demands as hypothesised. However it is associated with higher levels of influence. In the workplace influence is associated with greater control and participation, while lack of influence is associated with strain (Karasek, 1979). Influence was associated with satisfaction with support from the

manager, thus supporting Lantz and La Flamme (1996) who report that the richer the exchange of support within a team, the more the individual feels he/she has the opportunity to influence departmental decisions, set a personal agenda and perform tasks in the manner he/she considers to be most effective. Perceiving a high level of influence suggests that those in teams are consulted prior to decisions being made, and that they feel free to contribute to new developments and participate in decisions that affect them. It is the manager who has the power to consult or to make decisions without involvement, and therefore affects the degree of influence experienced by team members. Such a relationship is supported by Deluga and Perry (1991) who reported a positive relationship between influence and satisfaction with the supervisor, further supporting Israel, House, Schurman, Heaney and Mero (1989). Influence was associated with job satisfaction, well-being and organisational commitment, supporting Drake and Mitchell (1977), and Miller and Monge (1986).

The findings reported in this study therefore suggest that working in a well-defined team and the subsequent social support experienced has important organisational and individual outcomes for employees working in a service organisation in which the environment is not emotionally charged and characterised by life and death decisions. There were several differences associated with team work in the Post Office compared to working in a team in the NHS. Within the Post Office context social support from the manager mediated the relationship between working in a team and well-being outcomes, within a health service setting co-worker support mediated this relationship (Carter, 2000). It is not possible to compare co-worker support with colleague support assessed in the study reported in this thesis as co-workers were not clearly defined. Within a Post Office context working in a team was associated with a higher level of influence, while in the NHS teams working in a team was associated with increased role clarity (Carter, ibid). A possible explanation is the difference in the type of teams studied in the research. NHS teams surveyed consist of individuals from diverse work groups e.g. a surgeon, a nurse, an administrator, a radiographer etc. Often these individuals are not managed by anyone within this group; the team is semi-autonomous in structure. Role clarity may therefore be considered a more poignant characteristic of the work as all individuals come from different backgrounds and

knowledge of these differences and resulting roles may then benefit health. This contrasts to the Post Office teams in which the manager is part of the team and the team consist of individuals who are multi-skilled, one Post Office staff member is trained to do all the possible tasks (in practice they may specialise but all have general knowledge of the entire process). Thus, the Post Office employees have a better understanding of the team roles as all team members have similar skills and have received similar training.

The Model

The path analysis results support the model suggested through the regression analyses. Satisfaction with manager support mediated the relationship between working in a well-defined team and all outcome variables, and influence, which is also associated with all three outcome variables. Satisfaction with colleague support mediated the relationship between teamwork and job satisfaction. Thus suggesting that when individuals work in a well-defined team they are more satisfied with the support they receive from their manager and colleagues. These perceptions of support have positive consequences for job satisfaction, well-being and the organisational commitment of those individuals when compared to those people who perceive that they work in a less well-defined team. In terms of satisfaction with support types, working in a well-defined team is associated with satisfaction with task appreciation which is associated with well-being, job satisfaction and commitment; satisfaction with emotional challenge is associated with job satisfaction; satisfaction with task challenge is associated with well-being and commitment; and satisfaction with emotional support is associated with influence, influence is also associated with well-being, job satisfaction and organisational commitment.

Limitations

The Perception of Team Working

The aim of this study was to examine the differences between those employees who work in teams and those who work in quasi teams. The index used to assess whether respondents work in a team or a quasi team has been used extensively in NHS studies (e.g. Borrill et al., 1999) and was considered to be a reliable measure of the extent to which individuals work in a team. Respondents in both teams and quasi teams perceive that they are working in a

team, however those in quasi teams do not fulfil the criteria of "team", as they responded negatively to between one and four of the subsequent questions. As the respondents were allocated identification numbers it was possible to record if there was more than one response per Branch Office. This investigation revealed that while the members of a Branch Office considered themselves to work in a team, there was not absolute agreement, resulting in individuals within the same Branch Office being categorised as a mix of working in a team and a quasi team. Due to the forced choice nature of the team index, the results not do inform the researcher of the extent to which the respondent was classified as working in a quasi team, in other words a respondent may have answered yes to the first question and no to the remaining, or just answered one of the subsequent questions negatively. It is therefore possible that when the categorisation index forces the respondents to select yes or no this leads to discrepancies between employees in the same unit, causing it to appear that there is lack of agreement, when there may only be one response difference between the two individuals. As the study was conducted at the individual level, and therefore concerned with individual's perceptions as to their work environment, this point is of interest, yet does not have adverse repercussions for the findings from this study.

Causality and Common Method Variance

The cross sectional nature of the study design does not allow for the direction of causality between variables to be tested. This limitation is addressed in detail in chapter 12, page 298. The study also relies on self-report data from individuals about their work characteristics, social support and well-being outcomes; common method variance is therefore an issue. Method variance may contain bias and cause inflation of the observed relationships between variables (Conway, 2002; Spector, 1994). Therefore relationships between two variables may be the result of a third unmeasured construct.

The data was collected using self-report methods as the research is based on workers perceptions. It is therefore necessary to measure strain and aspects of social support from the perception of the individuals as it is the perception of stress and social support that have an impact on the individual, not how much stress or support others see the individual as experiencing. In attempts to reduce the effect of self-report bias several

strategies were adopted. Validated and reliable measures were used to assess the study constructs.

The correlations between work stressors and well-being outcomes (table 9.07) show a range of association strengths; ranging between -0.536 and 0.381 for well-being; -0.575 and 0.501 for job satisfaction and -0.301 and 0.516 for organisational commitment. This indicates differential relationships between the work characteristics and well-being outcomes, suggesting limited bias attributable to common method variance. In addition, team members did not always report the work environment more favourably than quasi team members, for example there was no difference in the rating of satisfaction with team member support between the two groups, again indicating differential relationships between constructs.

Directions for Further Research

This research, conducted at the individual level, on the whole offers general support to previous work in this area, while in addition it provides detail about social support source and type that is lacking in past research on social support and social support in teams. Expanding the level of analysis to the team level would add value to these findings and further develop our understanding of the association between team working and social support in relation to work characteristics in numerous ways.

At a group level of analysis, in order to address the difficulties associated with the team categorisation measure it would be more accurate to conceptualise it as a continuous construct. Rather than continue with the team/quasi team distinction it would be more representative of reality to assess the extent to which the teams fall along a continuum from pure team to quasi team. This can be achieved by using a continuous scale when presenting the team questions. Responses can then be aggregated per team. This would then enable the exploration of a team construct in terms of the extent to which the unit are a well-defined team. This is referred to as teamness, and is the equivalent of climate quality described in chapter five. In addition, using a scale of team characteristics enables the extent to which the team agree with fellow team members about the teamness of the unit to explored as a

focal construct. This is referred to as teamness agreement and is the equivalent of climate strength, also discussed in chapter five.

Common method variance can be addressed through the use of subjective measures of team performance (Hackman, 1987). Such an approach takes account of the fact that what happens within the team depends on team member's subjective assessments. Alternatively, a performance from an individual exterior to the team or hard, objective data such as volume sales can be used.

Having discussed the limited value in continuing with the team/quasi team divide, an alternative strategy would be to assess team functioning. Work units can then also be examined on the extent to which they function along several climate dimensions. In the team climate literature and those papers addressing social support at the group level there is a move towards considering climate strength as a variable in its own right. Study two was designed to take account of this development and to examine the impact of climate strength on well-being, job satisfaction and organisational commitment.

The most dramatic results from study one were related to the effect of satisfaction with manager support. The manager or team leader therefore plays a very important role within the team, which warrants further exploration. The measure of social support used did not enable the researcher to identify the types of manager behaviour that are associated with satisfaction with support. Incorporating a measure of managerial behaviours will enable this to be explored and the behaviours associated with satisfaction with support to be identified. This would be useful when reporting the results as the data would indicate the types of manager behaviour associated with support satisfaction. Thereby enabling recommendations to be made about manager behaviours which lead to satisfaction with social support and the associated benefits of support satisfaction.

Longitudinal research would confirm the theorised direction of causality adopted in this study. However, due to the time restrictions of this research project such a methodology is

not feasible. Therefore previous longitudinal empirical work must be considered when hypothesising about the causality of variables.

Chapter Summary

Within the Michigan model framework, the study reported in this chapter has explored the effects of social support from multiple sources and multiple types of support on the relationship between stressors and well-being in the context of the team. Such an approach has previously not been taken. The results support the general assumptions of the Michigan model, developing understanding further by identifying specific support sources and types associated with specific outcomes. Working in a well-defined team is associated with specific social support sources and types of support.

The proceeding chapter will detail the methodology of the second stage of the research, which addresses some of the limitations and future research possibilities identified in this chapter.

Chapter 10

Study 2: Team functioning: The role of social support

Method

Chapter Overview

In this chapter the second study conducted within Post Office Ltd. is described. The research builds on the findings from the first study and addresses some of the limitations. Using many of the same constructs as employed in study one, this study examines in greater detail the team and quasi team concept, the role of the manager, and team functioning. In study one, social support within teams and quasi teams was analysed at the individual level, this study is designed and analysed at the group level.

The aims, research questions and model will be presented and the study variables detailed and preliminary analyses reported for these constructs. The hypotheses are then stated.

Aim of Study Two

The previous study supported the Michigan model and revealed significant differences between teams and quasi teams, most significantly with regards to the role of satisfaction with manager support. Study one measured individual responses analysing the data in terms of team and quasi team categories. An interesting finding was that employees within the same work unit did not agree on the team categorisation questions, thus individuals within the same team could be categorised differently e.g. one person may be categorised as being in a team and another in a quasi team. The aim of study two is to develop a continuum of team working rather than constraining the concept of teams to well-defined and quasi. In addition, investigating the impact of perceptions of team functioning to understanding in greater depth the processes within the teams that are associated with greater satisfaction with social support, and well-being outcomes. Measures to assess managerial behaviours were also included to further understanding of satisfaction with manager support. Developing empirical knowledge further, the study also adopts the construct of agreement, exploring the effect of agreement in teams on the outcome variables.

The analysis draws on two concepts. The first analysis involves the aggregated score for the group, such an approach can be found in the majority of studies examining variables within groups. This is referred to as teamness and it the equivalent of team climate quality. The second approach involves using the agreement surrounding a concept as a variable in its own right, in other words the extent to which the individuals within the unit agree becomes an independent variable. This is referred to as teamness agreement and is the equivalent of climate strength.

Research Questions

1. Is the extent to which the unit are a team related to how well the group function? Is group functioning related to social support, work stressors, well-being and performance outcomes?

This question explores the at the group level of enquiry the relationship between teamness and team functioning, and processes within the team.

2. What is the role of the manager's behaviour in predicting satisfaction with manager support and subsequent well-being and performance outcomes?

This question explores the at the group level of enquiry, within the team, the manager behaviours which are associated with support satisfaction.

3. Does agreement about the extent to which the unit are a team have a direct effect on team functioning, social support, stress, well-being and performance outcomes?

This question explores the at the group level of enquiry the relationship between team agreement and team functioning, and processes within the team.

4. Does agreement about the extent to which the unit are a team have a moderating effect on the relationship between the extent to which the unit are a team and team functioning, social support, stress, well-being and performance outcomes?

This question explores the at the group level of enquiry the moderating effect of team agreement on the relationship between teamness and team functioning, and processes within the team.

Figure 10.01. The theoretical model
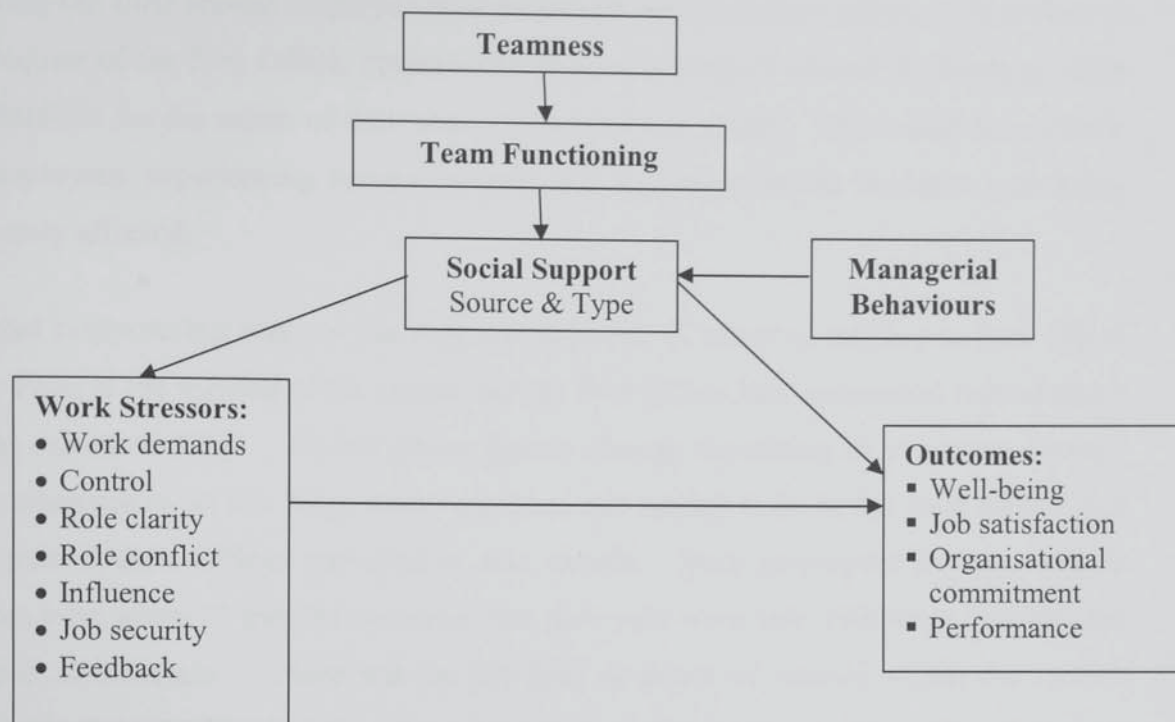
The model considers different aspects of team processes, three which are related to the concepts of interpersonal processes and relationships and the fourth which are categorised as work stressors.

Study Design and Sampling

Access

As described in chapter 7, Post Office Ltd. went through major changes during the research, including internal restructuring. Within the Head Office many redundancies were made and the HR director and middle manager contacts that had supported the access for study one no longer held these positions. New appointments were made and access had to be re-negotiated. This resulted in a significant time delay between study one and two, as the identity of the successors to the roles needed to be identified, and time for these individuals to establish themselves in their new roles. Access was re-negotiated through the researcher's organisational contact. A report detailing the findings from the first study and outlining the proposal for the second was presented to the Head of HR Strategy, Post Office Ltd. Following discussions, approval for the second study was granted.

Further delays were encountered once access had been granted as the organisation was carrying out their annual employee opinion survey within Branch Offices. Therefore at the request of the Post Office, contact with Branch Managers was not be made till after the deadline for the return of their internal surveys had passed. This raised the concern of employees experiencing survey fatigue, and subsequently the response rate being adversely affected.

Internal restructuring was not the only development in terms of staffing in Post Office Ltd. Prior to the mailing of the second survey Post Office Ltd. announced redundancies in the region of 9,000 – 40,000 (these figures change depending on the news source). The redundancies at this stage were voluntary, and tended to be in the rural offices, not the main Branch Offices surveyed in this sample. Such employees in large branch offices were given 12 months assurance that their jobs were safe, following this time the outlook is uncertain. There was no job loss, or threat of closure within the Branch Offices in the sample population, however tension and anxiety may have filtered through the organisation from the rural subsidiaries.

Study Design

The study used a cross-sectional design. Data was collected from individuals within teams using self-report questionnaires. Performance data was obtained from the Organisation. The data provided took the form of mystery shopper experiences. Access to additional data relating to sales or sales turnover was not permitted, as this was considered company sensitive due to the troubled time Post Office Ltd. was experiencing.

Sampling and Procedure

The identification numbers given to respondents in the first study were used to identify Branch Managers and whether they worked in teams or quasi teams. In total 128 Branch Managers had responded in study one, of these 36 were classified as working in a quasi team, these branches were selected for study two. Of the 92 Branch Managers who were classified as working in a team, 36 were randomly selected. The Branch name was listed alphabetically, and numbered in sequence, 36 random numbers between 1 and 92 were generated, and the corresponding Branches selected.

The Branch Managers of the selected sample of 72 were sent a research pack that contained a covering letter detailing the research and it's endorsement by the Head of HR Strategy, an outline of the research proposal and a sample of the report that they would receive if they participated in the survey. The sample report outlined how the individual Branch compared to other Branch Offices in the sample along the concepts assessed. The report could therefore be used by the Manager as a benchmarking tool. The report was offered to branches in which a response rate of 80% was achieved. A follow up telephone call was made to the Branch Managers within a week of the mailing. Branch Managers were asked if they were willing to participate in a second study and to encourage their Post Office counter staff to participate. Many Branch Managers had not read the information detailed in the research pack, and were therefore given a brief description of the research during this call. Managers then agreed to participate, declined or requested a new research pack. The involvement and support from the Branch Manager ensured the buy-in of the Branch to the research and Managers were therefore more likely to encourage their staff to complete the questionnaires and allow them to do so during work time.

Insufficient support was gained from the 72 Branch Managers contacted to enable meaningful group level analysis. The selection was then expanded to include all Branch Managers who took part in the initial study. The remaining 56 Branch Managers were contacted in the same way as described above.

Surveys were then mailed to all Post Office employees within the agreed Branch Offices. Employees were given three weeks in which to return the completed surveys. Surveys were mailed in March 2002. The responses per Branch Office were monitored and a follow up call made to branches in which there had been few replies. The purpose of these calls was to inform the manager that there had been some response, but not sufficient to qualify for their individual Branch report.

In order to further encourage a positive response to the surveys, an incentive of a £50 "choice" gift voucher was offered to the Branch which achieved the greatest response rate by percentage from their branch. This prize was intended as a team reward. Choice gift vouchers can be spent at a wide range of high street stores, and was therefore considered the give flexibility of gift selection. An incentive was also used at the

individual level, a prize draw of five, £30 choice gift vouchers. This incentive approach legitimised the use of the identification numbers, putting respondents at ease regarding confidentiality issues. This approach was deemed necessary as staff had received many surveys in recent months, the most recent being the employee opinion survey a month previously, and survey fatigue may have had a negative effect on the response rate.

The Questionnaire

A pilot study was conducted internally with the new survey, it had not changed significantly and the additional measures are well established, with the exception of the team questions.

The questionnaire consisted of four sections. Section one includes questions about the individual's work and team. Section two includes questions about relationships at work and section three focuses on aspects of working with others. This section also includes the team functioning and manager behaviour scales. Section four includes questions about respondent well-being. Demographic details are collected on the last page.

All correspondences detailed above, including the questionnaire are in appendix 6, page 408.

Measures

In this section the measures selected to address the research questions presented above are described. Team membership will be followed by work characteristics measures, social support measures and well-being variables. The scale reliabilities provided in this section are calculated using all questionnaire responses. This enables the scale reliability to be assessed with the largest possible sample for the current population (n=307). The reliabilities obtained in study one are also included in the tables to enable comparison or scale reliability across the two studies. The following measures from study one will be used again. For a detailed overview of the measures see chapter 8, page 127.

Team Membership

The measure items are as follows:

1. Do you work as part of a clearly defined team?

2. Does your team have clear objectives?
3. Do you frequently work with other team members to achieve these objectives?
4. Are there different roles for team members within this team?
5. Is your team recognised by others in the business unit as a clearly defined team?

Questions six and seven ask about how long the respondent has worked in the team and the number of other team members. These questions were included to gain a more detailed understanding of team composition within Post Office Ltd.

These items were constructed into a scale and presented later in the questionnaire. Thus enabling the calculation and therefore indication of the extent to which the work unit are a team along a continuum from a totally quasi team to a well-defined team. The questions were not altered, but prefixed with the words "to what extent". A four point likert scale was used with possible responses being "not at all", "a little", "quite a lot" and "a great deal". This enabled greater detail of the extent of team working, and the four point scale would allow the data to be categorised into a yes/no format if required. The coefficient alpha obtained was 0.82, hence the continuum version of the team categorisation index is reliable.

Reponses of "not a lot" were attributed one point, "a little" two points and so on. The mean was then calculated, the scores therefore range between 1 and 4. A higher score denotes a team further along the continuum towards the well defined end than a low score which indicates a position closer to quasi team along the continuum. At the team level, the score per person was then aggregated to form a team score, along the continuum (Mean= 2.76; SD = 0.355; Range = 1.88-3.47). To ensure the validity of the scale a one-way ANOVA was carried out, comparing the means of teamness (DV) with the category team, which included the labels team, quasi team and non-team. The ANOVA was significant at the 0.000 probability level suggesting that teamness scores do differ depending on the category assigned by the team categorisation index.

Table 10.01. Analysis of variance: Teamness with team, quasi team and non team

DV	Team		Quasi team		Non team				
	Mean	SD	Mean	SD	Mean	SD	F	df	P
Teamness	2.96	.584	2.55	.644	2.03	.174	34.78	1/336	0.000

The agreement of teamness was also assessed, this is the extent to which the team members agree within each other about the extent to which the unit are a team.

Work Stressors Measures

As these concepts and their scale development have already been discussed in chapter seven, the reliability of the scales for this study sample will be described and compared to the previous study.

Table 10.02. Reliability of work stressor measures

Work Stressor	Alpha Study 2	Alpha Study 1
Autonomy and Control	0.89	0.89
Work Demands	0.90	0.90
Role Clarity	0.88	0.84
Role Conflict	0.85	0.82
Feedback	0.81	0.80
Influence	0.83	0.80
Job Security	0.63	0.61

Confirmatory Factor Analysis of Work Stressors

To ensure that the work stressors are factorally distinct, using the data obtained from study two confirmatory path analysis was carried out using AMOS. The model can be found in chapter 8, page 133.

Table 10.03. Fit index for work stressors

	Study 2	Study 1
Chi-squared	1359.079	1213.297
Degrees of freedom	506	506
Probability level	0.000	0.000
CFI	0.971	0.974
RMSEA	0.070	0.068
TLI	0.965	0.970

These results are very similar to the ones obtained using the data collected in study one, the CFI and TLI values obtained are above 0.9, indicating a good fit and the RMSEA is below .05 indicating good fit; again further supporting the distinct factors represented by this battery of measures.

The Social Support Survey

The coefficient alpha values for the aggregated social support variables are shown in the table overleaf, along with the values obtained in study one, for comparison purposes. Overall they compare favourably with the values obtained in study one. Again several of the type of support scales are below the 0.7 cut off of acceptability, but above the alternative cut off of 0.6 proposed by Nunally and Bernstein (1994).

Table 10.04. Reliability of social support subscales

Type of Support	Alpha Study 2	Alpha Study 1	Type of Support	Alpha Study 2	Alpha Study 1
Manager support amount	.94	.93	Manager support satisfaction	.95	.95
Team support amount	.90	.92	Team support satisfaction	.92	.93
Colleague support amount	.93	.92	Colleague support satisfaction	.93	.93
Task appreciation amount	.72	.65	Task appreciation satisfaction	.74	.64
Task challenge amount	.82	.70	Task Challenge satisfaction	.67	.66
Practical assistance amount	.64	.65	Practical assistance satisfaction	.73	.62
Reality check amount	.66	.64	Reality check satisfaction	.65	.64
Emotional support amount	.72	.64	Emotional support satisfaction	.69	.69
Emotional challenge amount	.83	.69	Emotional challenge satisfaction	.67	.67
Listening support amount	.74	.61	Listening support satisfaction	.72	.63

Confirmatory Factor Analysis of Social Support Scale

Confirmatory factor analysis of the social support scale was carried out using the data set from study two, to ensure factor distinction between the scale subunits. The two models can be found in chapter 8 on pages 142 and 144.

Table 10.05. Fit index: Source of support

	Study 2	Study 1
Chi-squared	4955.933	4166.321
Degrees of freedom	809	809
Probability level	0.000	0.000

CFI	0.905	0.919
RMSEA	0.122	0.118
TLI	0.894	0.910

Table 10.06. Fit index: Type of support

	Study 2	Study 1
Chi-squared	7992.596	8880.063
Degrees of freedom	797	797
Probability level	0.000	0.000
CFI	0.835	0.806
RMSEA	0.162	0.184
TLI	0.813	0.780

These results are very similar to the ones obtained using the data collected in study one, providing greater support for the reliability of the source of support measure, but also sufficient support for the type of support measure and the presence of distinct factors of support source and type.

Well-being Measures

Well-being

Analysis was carried out on the 25 item well-being used in study one (Dawson, 2002). The 25 item Well-being measure and the GHQ were compared (Likert and caseness). The five most similar positive and negative items were selected, a 10 item scale was formed, comprising items a, c, d, e, g, l, o, q, v, and w. As a likert type scale, these correlated with the GHQ at –0.72. The reliability was 0.87. Using a binary version (cutting off between "only occasionally" and "quite often"), with a 5/6 cut off, it compared with GHQ caseness with a specificity of 0.85, a sensitivity of 0.75, and a kappa of 0.55. Using a 4/5 cut off, it had a specificity of 0.91, a sensitivity of 0.56, and a kappa of 0.49. The 5/6 cut off over-estimates the number of cases (28.1% compared with 22.2% with the GHQ); whereas the 4/5 cut off under-estimates (19.4%). An alternative (but similar) 10 item scale consisted of items a, c, d, e, k, l, m, v, x, and y. This had a reliability of 0.88, and correlated with GHQ at –0.75. Using a binary version with a 4/5 cut off, it had a specificity of 0.96, a sensitivity of 0.69, and a kappa of 0.54. The 4/5 cut off gave 15%, and the 5/6 cut off 26.3% cases. The 5/6 cut off is therefore preferable in each case, despite the over-estimation of cases.

The scale was thus reduced to 14 items. The coefficient alpha for this study sample was 0.91; this is slightly less than the 0.95 obtained in the earlier study, it is possible that this is a result of reducing the number of items in the scale. This compares favourably with the coefficient alpha obtained from a large sample of NHS employees in which the reliability was 0.85.

Organisational Commitment

The coefficient alpha for this study sample was 0.81; this is an improvement on the 0.66 obtained in the earlier study.

Job Satisfaction

The coefficient alpha for this study sample was 0.94; this is slightly greater than the 0.91 obtained in the earlier study.

Demographic Data

The following demographic data was collected: sex, age, marital status, nationality and ethnic background, education. Information about the job was also collected, this included the respondents occupational level, length of time they had worked in their current role and the organisation, the type of contract (full-time/part-time), the number of contracted hours they work a week and the hours over this they work per week

Team Climate Inventory

The team climate inventory (TCI) was used to assess team functioning. The TCI taps the atmosphere within teams; the "shared perception of the way things are around here". This four-factor theory of team innovation consists of the following subscales: participation, support for innovation, vision and climate for excellence. The measure has been rigorously validated, in terms of both predictive and construct validity. To establish construct validity congruence between climate measured by the TCI and ratings of team behaviour were tested (Anderson & West, 1994). Three independent raters viewed 77 tapes observing team behaviours in meetings, inter-rater reliability was demonstrated though content analysis. Predictive validity was assessed using longitudinal data from 27 hospital management teams (West & Anderson, 1996). Further validation studies of the TCI have been conducted in a variety of contexts;

production teams, primary health care teams, and local government teams, and counties; UK, Sweden and Finland (e.g. Agrell & Gustafson, 1994; Carter & West, 1998; Kivimäki et al., 1997).

Although a measure of innovation, the TCI has been used extensively within health care settings to indicate how well teams work together, the team functioning, (e.g. Borrill et al., 1999) and will thus be used for such purposes within the study reported in this thesis. The four subscales will be described.

Participation: The items for this factor assess perceptions of how information is shared, influence over decision making and frequency of interaction. The scale consists of 12 items, with 5 possible responses ranging from "strongly disagree" to "strongly agree". Example items are "there are real attempts to share information throughout the team" and "the team always functions to the best of its capability". The coefficient alpha for this study sample was 0.93; this is the same value as the reliability of 0.93 obtained by Carter (2000) and compares favourably to the 0.91 obtained in the scale validation work.

Support for Innovation: This factor measures the extent to which the team encourage each other, provide practical support and suggestions for improved ways of doing things. The scale consists of 11 items, with 5 possible responses ranging from "strongly disagree" to "strongly agree". An example item is "team members provide practical support for new ideas and their application". The coefficient alpha for this study sample was 0.91; this is slightly lower than the reliability of 0.92 obtained by Carter (2000), and again slightly lower than the 0.95 obtained in the scale validation work.

Vision / Team Objectives: The items in this subscale measure the extent to which team members feel their team objectives are clear, worthwhile and shared by all members of the team. The scale consists of 11 items, with 5 possible responses ranging from "not at all" to "completely". An example item is "How clear are you about your team's objectives?" The coefficient alpha for this study sample was 0.91; this is slightly lower than the reliability of 0.94 obtained by Carter (2000), but compares favourably to the 0.93 obtained in the scale validation work.

Commitment to Excellence / Task Orientation: This scale measures the extent to which team members express concern for excellence and task performance. The scale consists of 7 items, with 5 possible responses ranging from "to a very little extent" to "to a great extent". An example item is "Do members of the team build on each other's ideas in order to achieve the highest standards of performance?". The coefficient alpha for this study sample was 0.86; again this is slightly lower than the reliability of 0.89 obtained by Carter (2000), favourably to the 0.88 obtained in the scale validation work.

Confirmatory Factor Analysis of the Team Climate Inventory

Confirmatory factor analysis of the team climate inventory was carried out using the data set from study two, to ensure factor distinction between the scale subunits. The inventory had not been used previously in Post Office teams. The model is shown overleaf.

Table 10.07. Fit index: Team climate inventory

	Study 2
Chi-squared	1708.090
Degrees of freedom	661
Probability level	0.000
CFI	0.971
RMSEA	0.072
TLI	0.967

The results provide strong support for the four factor model of team climate; both the CFI and TLI values are above 0.9 and the RMSEA is below the 0.5 level.

Figure 10.02. Confirmatory factor analysis: Team Climate Inventory
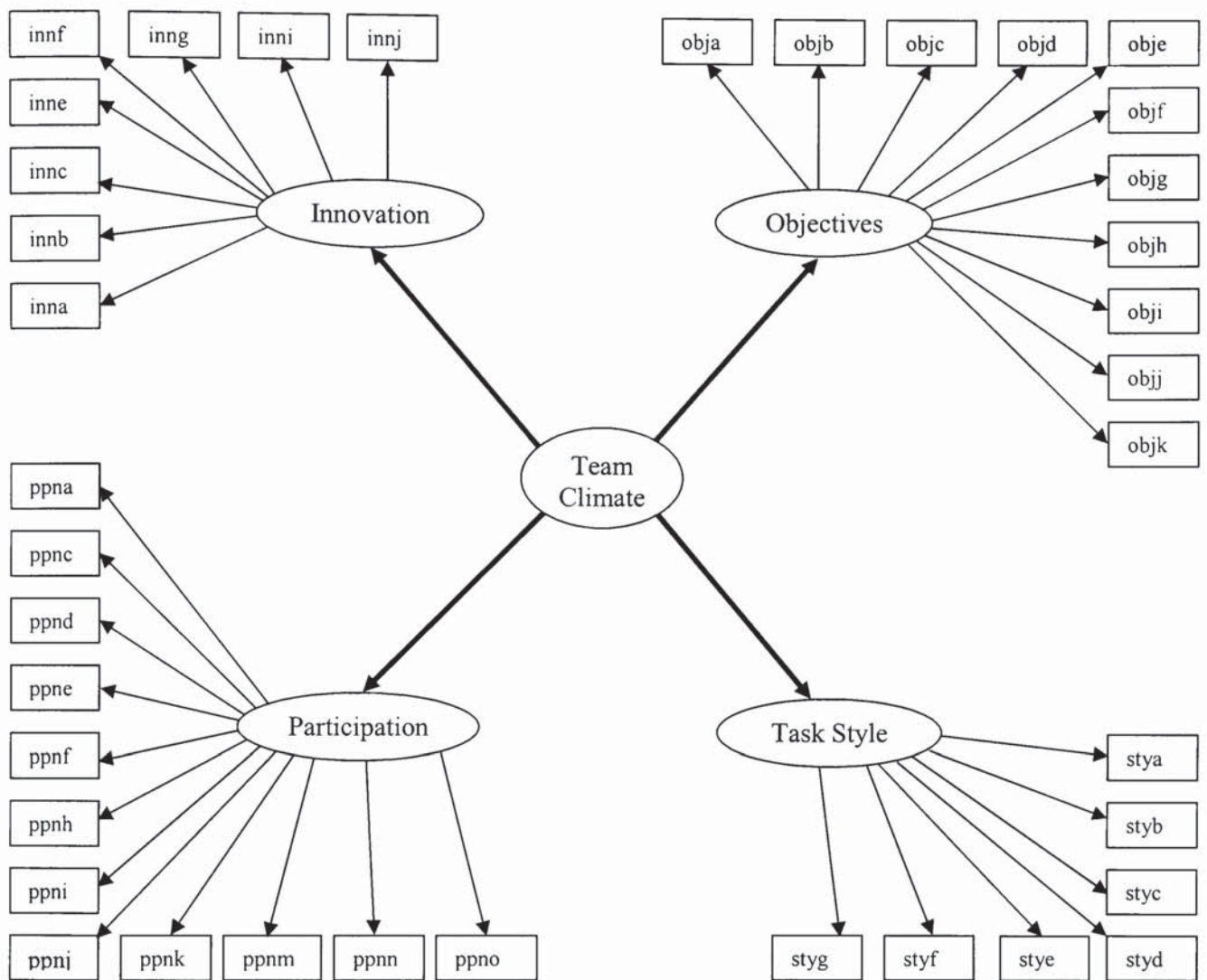
Manager Behaviours

The manager behaviours section consist of nine scales developed by Smithers et al., (1995). The data collected formed part of a research programme on upward feedback. Although this study does not consider upward feedback the scales are relevant for effective managerial behaviour which is of interest for this present study. The nine leadership competencies were identified based on one-hour interviews with senior level managers. The managers were asked to name leadership competencies which they thought critical for managers to possess thus enabling the organisation remain competitive and equipped for future prosperity. Behavioural examples were provided

by the interviewees. The scale consists of 33 items, with five possible responses ranging from "not at all" to "a great deal". The nine scales will each be described:

The **Coaching** and support scale measures the extent to which managers are available to provide guidance and support, and knowledge sharing. The scale consists of 5 items, example items are "my manager provides coaching and guidance on ways to improve my effectiveness" and "my manager willingly shares his/her knowledge and expertise with me". The coefficient alpha for this study sample was 0.90.

The **Communication** scale measures the extent to which managers communicate pertinent information in a clear manner. The scale consists of 3 items, an example item is "my manger provides timely, specific feedback on my performance". The coefficient alpha for this study sample was 0.85.

The **Creating a Team Environment** scale measures the extent to which the manager promotes and facilitates collaboration. The scale consists of 4 items, example items are "my manager encourages and facilitates team work and collaboration" and "my manager rallys members of the team around a common goal". The coefficient alpha for this study sample was 0.91.

The **Fairness** scale measures the extent to which the manager treats all staff fairly. The scale consists of 3 items, an example item it "my manager treats me fairly and with respect". The coefficient alpha for this study sample was 0.88.

The **Commitment to Quality / Client Satisfaction** scale measures the extent to which the manager promotes a strong commitment to quality ethos and is client driven. The scale consists of 4 items, example items are "my manager regularly stresses the importance of quality and continuous improvement" and "my manager demonstrates a strong commitment to client satisfaction with day-to-day actions". The coefficient alpha for this study sample was 0.88.

The **Integrity and Respect** scale measures the extent to which the manager honours their commitment and behaves in a congruent manner. The scale consists of 4 items, example items are "my manager follows through on his/her commitments" and "my

manager adheres to the same work standards he/she communicates to me". The coefficient alpha for this study sample was 0.89.

The **Participation** and empowerment scale measures the extent to which the manager allows decision latitude and requests feedback on their own performance. The scale consists of 4 items, example items are "my manager encourages and utilises my input when setting my objectives" and "my manager empowers me to make decisions on my own". The coefficient alpha for this study sample was 0.88.

The **Giving Feedback** scale measures the extent to which managers provide their employees with relevant and timely feedback. The scale consists of 3 items, an example item is "my manager lets me know when I have done a good job". The coefficient alpha for this study sample was 0.91.

The **Valuing Diversity** scale measures the extent to which the manager encourages open-mindedness and are willing to accept view points other than their own. The scale consists of 3 items, an example item is "my manager encourages and accepts points of view that differ from his/her own". The coefficient alpha for this study sample was 0.85.

These scales were presented in the questionnaire to form two scales, participation and empowerment, integrity and respect, coaching and support, and fairness were presented in a random order to form a scale which looked at interpersonal managerial behaviours. The communication, commitment to quality / client satisfaction creating a team environment, giving feedback and valuing diversity were presented in a random order forming a scale which looked at task related behaviours. This is similar to the presentation used by Smithers et al., (1995) and Haynes (1999).

The sample size from which Smithers et al., (1995) derived the following data is 1522. The nine scales are intercorrelated (mean r = 0.76), yet as a composite measure the scale has a good reliability (0.98). Unfortunately reliabilities for the separate scales are not presented. The overall reliability obtained from this sample is 0.91.

Confirmatory factor analysis of the manager behaviours scale

Confirmatory factor analysis of the manager behaviours scale was carried out using the data set from study two, to ensure factor distinction between the scale subunits. The inventory had not been used previously in Post Office teams. The model is shown overleaf.

Table 10.08. Fit index: Manager behaviours scale

	Study 2
Chi-squared	2188.866
Degrees of freedom	486
Probability level	0.000
CFI	0.952
RMSEA	0.105
TLI	0.939

The values obtained for the CFI and TLI indices indicate a good fit of the model, both scores are above 0.9, however the RMSEA result is not as supportive of good fit and is above the .05 level. The results provide support for the nine factor model of manager behaviour.

Figure 10.03. Confirmatory factor analysis: Manager Behaviours
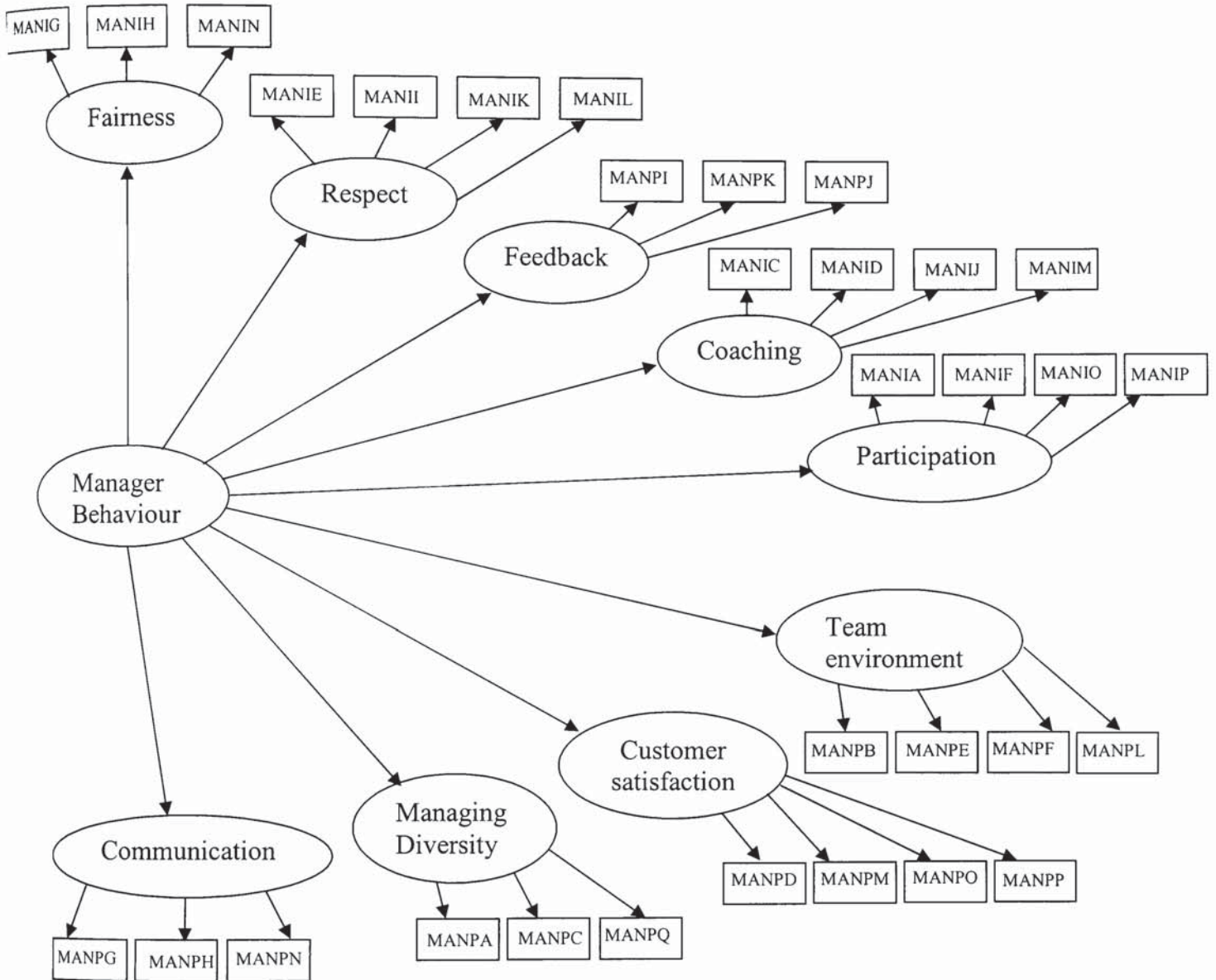
Testing for Redundant Information

Social support is the focus of this research, this study involved the addition of two measures potentially/theoretically associated with support. To ensure that each concept is independent and therefore not too strongly related, a series of correlations were carried out. Social support was correlated with the new process variables, team climate inventory and manager behaviours.

Satisfaction with support and team climate inventory

Table 10.09

Examination of the correlation matrix reveals significant intercorrelations ($p=<0.005$) between all social support variables and team climate inventory subscales. The strength of the associations range between 0.43 and 0.70, therefore, below the 0.80 cut off suggested by Maruyama (1998), in terms of multicollinearity. The team climate inventory scale will therefore be retained for further analysis.

Satisfaction with support and manager behaviours

Table 10.10.

Examination of this correlation matrix reveals significant intercorrelations ($p=<0.005$) between all social support variables and types of manager behaviours, with the exception of satisfaction with colleague support. The strength of the associations range between 0.66 and 0.88, and are therefore, above the 0.80 cut off suggested by Maruyama (1998), in terms of multicollinearity. Emotional challenge is the type of support most strongly associated with the manager behaviours: fairness, participation, valuing diversity, communication, coaching, creating a team environment, respect. With regards to providing feedback, and striving for customer satisfaction, task challenge is equally strongly associated. Thus suggesting that the challenging support behaviours are those most commonly acted by the manager. These variables are however correlated round 0.8, a result which should be treated with caution (Bryman & Cramer, 2001). A series of regressions were performed to explore the extent to which manager behaviours explained additional variance in the dependent variables (job satisfaction, well-being and organisational commitment), beyond that explained by satisfaction with manager support. The additional variance was negligible. These regressions can be found in appendix 7, page 447. As social support is the focus of this thesis and manager behaviours did not further explain differences in well-being outcomes, the manager behaviour scale was not included in the subsequent analysis.

Table 10.09. Intercorrelations for satisfaction with social support source and type, and team climate inventory (n= 40 after listwise deletion)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Manager Satisfaction	1												
2. Team Satisfaction	0.87**	1											
3. Colleague Satisfaction	0.36*	0.44**	1										
4. Task Appreciation Satisfaction	0.88**	0.87**	0.50**	1									
5. Task Challenge Satisfaction	0.85**	0.82**	0.60**	0.89**	1								
6. Practical Assistance Satisfaction	0.82**	0.85**	0.50**	0.87**	0.83**	1							
7. Reality Check Satisfaction	0.89**	0.89**	0.57**	0.90**	0.87**	0.87**	1						
8. Emotional Support Satisfaction	0.87**	0.88**	0.60**	0.82**	0.81**	0.83**	0.86**	1					
9. Emotional Challenge Satisfaction	0.88**	0.83**	0.58**	0.78**	0.82**	0.74**	0.88**	0.92**	1				
10. Listening support Satisfaction	0.87**	0.87**	0.50**	0.83**	0.74**	0.80**	0.86**	0.92**	0.88**	1			
11. TCI Participation	0.65**	0.77**	0.48**	0.70**	0.65**	0.70**	0.69**	0.67**	0.65**	0.69**	1		
12. TCI Objectives	0.48**	0.49**	0.48**	0.43**	0.43**	0.46**	0.50**	0.45**	0.53**	0.52**	0.66**	1	
13. TCI Commit to excellence	0.68**	0.73**	0.45**	0.67**	0.70**	0.64**	0.69**	0.60**	0.65**	0.62**	0.76**	0.62**	1
14. TCI Innovation	0.74**	0.79**	0.61**	0.79**	0.79**	0.75**	0.79**	0.74**	0.76**	0.74**	0.78**	0.75**	0.84**

**   Correlation is significant at the 0.01 level (2-tailed).
*   Correlation is significant at the 0.05 level (2-tailed).

Table 10.10. Intercorrelations for satisfaction with social support source and type, and tanager behaviours (n= 40 after listwise deletion)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Manager Satisfaction	1																		
2. Team Satisfaction	0.87**	1																	
3. Colleague Satisfaction	0.36	0.44	1																
4. Task Appreciation Satisfaction	0.88**	0.87**	0.50	1															
5. Task Challenge Satisfaction	0.85**	0.82**	0.60	0.89**	1														
6. Practical Assistance Satisfaction	0.82**	0.85**	0.50	0.87**	0.83**	1													
7. Reality Check Satisfaction	0.89**	0.89**	0.57	0.90**	0.87**	0.87**	1												
8. Emotional Support Satisfaction	0.87**	0.88**	0.60	0.82**	0.81**	0.83**	0.86**	1											
9. Emotional Challenge Satisfaction	0.88**	0.83**	0.58	0.78**	0.82**	0.74**	0.88**	0.92**	1										
10. Listening support Satisfaction	0.87**	0.87**	0.50	0.83**	0.74**	0.80**	0.86**	0.92**	0.88**	1									
11. MB composite	0.82**	0.75**	0.30	0.68**	0.74**	0.70**	0.72**	0.73**	0.79**	0.65**	1								
12. MB fairness	0.73**	0.68**	0.27	0.55	0.59	0.65**	0.59	0.69**	0.71**	0.61**	0.91**	1							
13. MB participation	0.81**	0.74**	0.23	0.71**	0.69**	0.67**	0.71**	0.70**	0.75**	0.66**	0.95**	0.84**	1						
14. MB integrity and respect	0.79**	0.72**	0.27	0.63**	0.69**	0.72**	0.70**	0.69**	0.75**	0.64**	0.96**	0.91**	0.89**	1					
15. MB providing feedback	0.77**	0.72**	0.29	0.67**	0.75**	0.65**	0.69**	0.70**	0.75**	0.58	0.95**	0.83**	0.90**	0.89**	1				
16. MB valuing diversity	0.71**	0.71**	0.29	0.65**	0.68**	0.69**	0.67**	0.66**	0.70**	0.54	0.92**	0.84**	0.86**	0.86**	0.86**	1			
17. MB coaching	0.83**	0.68**	0.30	0.70**	0.70**	0.67**	0.74**	0.69**	0.76**	0.64**	0.93**	0.82**	0.93**	0.88**	0.87**	0.81**	1		
18. MB communication	0.74**	0.66**	0.27	0.56	0.67**	0.60	0.65**	0.65**	0.76**	0.58	0.96**	0.86**	0.88**	0.92**	0.91**	0.86**	0.87**	1	
19. MB team environment	0.76**	0.71**	0.28	0.61**	0.71**	0.62**	0.69**	0.69**	0.75**	0.61**	0.94**	0.82**	0.86**	0.88**	0.89**	0.87**	0.81**	0.92**	1
20. MB customer satisfaction	0.77**	0.71**	0.30	0.64**	0.76**	0.65**	0.67**	0.67**	0.76**	0.60	0.94**	0.81**	0.85**	0.88**	0.89**	0.89**	0.81**	0.92**	0.94**

**   Correlation is significant at the 0.01 level (2-tailed).
*   Correlation is significant at the 0.05 level (2-tailed).

Teamness and Team Climate Inventory

Further testing for redundant information was also carried out on the teamness and Team Climate Inventory scales. Exploratory factor analysis of the teamness scale and the Team Climate Inventory was undertaken, to ensure that the two measures assessed different aspects of team working (Appendix 7, page 450). Eight factors emerged. The teamness variables all loaded strongly onto one factor, while the team climate inventory suggested a 7 factor solution. While there is some cross-loading on this measure, is clear that the TCI and the teamness scale are distinct factors. The Team Climate Inventory will be used in the analysis in the validated four factor form.

<u>Performance Data</u>

The performance data provided by the organisation were the results from mystery shopper experiences. Mystery shopping is used to assess customer service standards and identify training requirements of employees. This process is managed by an agency external to the Post Office. Mystery shoppers are trained and use a predefined checklist and rating scale. They behave like a normal customer and visit the counter asking a product related question. The visits are carried out at a random time on a random day during the first and third week of the month. Following their Post Office experience the mystery shopper completes the checklist and rating questions. Each month two different assessors visit the Branch offices. The data is collected and collated by the agency and on a monthly basis the results are reported to the Post Office. The data collected represents many different aspects of the Post Office experience. In order to analyse this data three scales were created. These are not scales with psychometric properties, merely items grouped by different performance criteria; therefore internal scale reliability is not necessary and hence not calculated. All items relating to the appearance of the branch, such as the internal cleanliness, tidiness, and the extent to which the fittings and fixtures are well kept within the branch were grouped together to form the **Outlet Appearance** scale. Ratings relating to the customers interaction with the Post Office Counter employee were also grouped together to form a scale entitled: **Personal Service.** This included ratings of how well the counter employee managed the interaction with the customer, e.g. did they provide a greeting, pay full attention during the transaction. The **Product Knowledge** dimension refers to how well the counter employee responded to a product related question posed by the mystery shopper. The response could be either correct or incorrect. The mean response was computed. For a

Productivity rating the amount of time the shopper queued for before being served was taken as an indicator of efficiency. Kendall's Tau correlations were carried out to ensure that there was a relationship between the items selected for those scales consisting of more than one item.

Table 10.11.Performance subscales

Performance subscale	Rating
Outlet Appearance	Is the inside litter free?
	Is the inside clean?
	Is the inside tidy?
	Is the inside well maintained?
	Is the external well maintained?
	Is the external window displayed appropriately?
Personal Service	Did the counter employee greet you?
	Did the counter employee make eye-contact with you?
	Did the counter employee give their full attention to your transaction?
	Did the counter employee serve you immediately on becoming available?
Product Knowledge	Did the counter employee respond correctly to product question no. 1?
	Did the counter employee respond correctly to product question no. 2?
Productivity	Time spent in the queue

The performance data selected was from the three months following the survey response deadline (May, June and July). To control for prior performance the three same three months from the previous year were selected. The Post Office sales and performance figures illustrate seasonality; therefore it is not appropriate to use data from the three months previous to the mailing. These months were then aggregated and figures obtained which represented the mean ratings from spring/summer 2001 and spring/summer 2002.

Reliability of Performance Data

To ensure the reliability of the performance data ICC(2) calculations were carried out.

Table 10.12. Within year reliability ICC(2)

Year	Category	ANOVA P	ICC(2)	Year	Category	ANOVA P	ICC (2)
2001	Appearance	.041	0.31	2002	Appearance	.443	0
2001	Service	.226	0.11	2002	Service	.503	0
2001	Knowledge	.502	0.02	2002	Knowledge	.005	.44
2001	Productivity	.148	0.21	2002	Productivity	.000	.54

It would therefore appear that within months there is little reliability for mystery shopper ratings. Therefore only the objective values such as time spent queuing and whether or not the counter staff employees answered the product question correctly will be used in subsequent analysis as these ratings are not subject to personal interpretation.

Hypotheses

The following hypotheses are derived from the research questions and are constructed to test the theoretical model. Hypotheses 1 to 9 focus on the extent to which the unit are a well-defined team, the climate quality, as the starting point, and the impact that this has on the study variables. Hypotheses 10-13, consider the impact of agreement on teamness, climate strength, on study variables.

Direct relationships

Hypothesis 1

The greater the extent to which the unit are a team, the greater the well-being, job satisfaction, organisational commitment and performance in the team.

Hypothesis 2

The greater the extent to which the unit are a team, the less role conflict and work demands and greater role clarity, job security, feedback, control, and influence experienced.

Hypothesis 3

a. The greater the extent to which the unit are a team, the greater the satisfaction with manager and team support.

b. The greater the extent to which the unit are a team will not influence satisfaction with colleague support.

c. The greater the extent to which the unit are a team, the greater the satisfaction with all types of support.

Hypothesis 4

The greater the extent to which the unit are a team, the better the team functioning.

Hypothesis 5

The greater the extent to which the unit are a team, the more positive the rating of manager behaviours within the team.

Mediated relationships

Hypothesis 6

The relationship between the extent to which the unit are a team and social support will be mediated by team functioning.

Hypothesis 7

The relationship between team functioning and outcomes will be mediated by social support.

Hypothesis 8

The relationship between team functioning and work stressors will be mediated by social support.

Hypothesis 9

The relationship between social support and outcomes will be mediated by work stressors.

Consensus/ Agreement

Hypothesis 10

The greater the agreement about the extent to which the unit are a team will predict well-being and performance outcomes.

Hypothesis 11

The greater the agreement about the extent to which the unit are a team will predict work stressors.

Hypothesis 12

a. The greater the agreement about the extent to which the unit are a team will predict satisfaction with support source.

b. The greater the agreement about the extent to which the unit are a team will predict satisfaction with support type.

Hypothesis 13

The greater the agreement about the extent to which the unit are a team will predict team functioning.

Hypothesis 14

The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and well-being and performance outcomes.

Hypothesis 15

The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and team functioning.

Hypothesis 16

The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and social support source and type.

Hypothesis 17

The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and work stressors.

Chapter Summary

This chapter has detailed the methodology of study two. The aims and model were presented, followed by the study design, access issues, and sampling procedure. The reliabilities of the scales used in the survey have been presented and compared to those of the previous study. Scales not used in study one have been thoroughly described, and factor analysis carried out to ensure there as no redundancy between similar titles subscales of the measures. As a result of this analysis manager behaviours will not be considered in the analysis. The performance data was then discussed, issues of reliability, and the resulting removal of "branch appearance" and "customer service" from the analysis. Finally the hypotheses were stated.

The following chapter provides the results of the second study and discussion of the findings.

Chapter 11

Study 2: Team functioning: The role of social support

Results

Chapter Overview

The first part of the chapter addresses details of the study sample, descriptives and relabilities, presenting this at the individual level. Group level analysis and issues of aggregation are then discussed. The remainder of the chapter and analysis present the data at the group level. The hypotheses are then addressed in turn, using the statistical techniques of multiple regression and confirmatory path analysis.

The Study Sample

A total of three hundred and seventy-one employees from fifty-five teams responded to the survey. Fifty-six teams were sent surveys, of these one Branch did not respond.

The overall sample comprised of 307 (82.7%) Post Office counter staff (POC), 21 (5.7%) Post Shop staff (POS), 43 (11.6%) Branch Managers (BM) and Assistant Branch Managers (ABM). 104 (28%) of the sample are male, 267 (72%) female.

The respondents ages ranged between 19 to 60. Time spent working in the organisation ranged between under a year to 45 years. Time spent working in the current role ranged between under a year to 38 years. 51.5% of the sample work part time while 48.2% work full time, contracted hours range between 4.3 to 42 hours a week. Hours worked over contract ranged between none to 15. 90% of the sample population are British, 4% Indian, and the remaining 6% are made up of other ethnic groups.

As analysis involves conceptualising constructs measured at the individual level at the group level it is necessary that sufficient responses are obtained for each team, thus ensuring that the responses from that team are representative of the team as a whole. It was therefore necessary to remove teams from which there were insufficient responses. Previous researchers (O'Reilly et al., 1999; Williams, 2000) have used a response rate of three plus

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per team to carry out team level analysis. On this basis, teams with a response of n = 3 or greater were held for further analysis. This resulted in the rejection of 15 teams; the resulting group level sample is 40 teams.

Therefore when the number of teams in the sample is forty the total number of respondents is three hundred and forty-seven, 293 (84.4%) Post Office counter staff, 17 (4.9%) Post Shop staff and 37 (10.7%) Branch Managers and Assistant Branch Managers. 93 (26.8%) of the sample are male, 254 (73.2%) female.

The respondents ages ranged between 19 to 60. Time spent working in the organisation ranged between under a year to 45 years. Time spent working in the current role ranged between under a year to 38 years. 51.9% of the sample work part time, while 47.8% work full time, their contracted hours range between 4.3 to 42 hours per week. Hours worked over contract range between none to 15. 90% of the sample are British, 4% Indian, the remaining 6% are made up of other ethnic groups. The mean size of the team is 19 (18.9) (SD = 7.04), team size range from 8 to 32.

Teamness

Based on the continuous team scale the composition of the 40 teams were explored. Using cross tabulation analyses differences in work role make up was examined across the team continuum. The headings in the table indicate the continuum from team to varying quasi team to non-team. Team indicates the respondent answered positively to the five team questions, quasi team 1 indicates that the respondent answered negatively to one of the team questions, quasi team 2 indicates that two team questions were responded to negatively and so on. Non team indicates that the respondent answered negatively to the question "do you work in a well-defined team?"

Table 11.01. The distribution of roles along the well-defined to less well-defined team continuum

	Team		Quasi Team 1		Quasi Team 2		Quasi Team 3		Quasi Team 4		Non Team		Total
Role	N	%	N	%	N	%	N	%	N	%	N	%	N
BM	24	88.9	3	11.1	0	0	0	0	0	0	0	0	27
ABM	8	73	2	18	0	0	1	9	0	0	0	0	11
POC	145	50	79	27	29	10	11	38	1	3	25	8	290
POS	5	29	2	53	3	18	0	0	0	0	0	0	17
Total	182		93		32		12		1		25		

P=.006 (likelihood ratio) .032 (Pearson chi-squared)

These results suggest that an employee's role within the organisation is associated with their perceptions of team working. Employees in the managerial roles (Branch and Assistant Branch Managers) are significantly more likely to work in a well-defined team than those employees who work the counter. This point is addressed in the general discussion, in chapter twelve.

The composition of the 40 teams in the sample are illustrated below. 16 teams are composed of a Branch Manager and Counter staff, 10 are composed of Counter staff, and 5 teams consist of all four job roles.

Figure 11.01. The composition of tasks in each team in the study sample
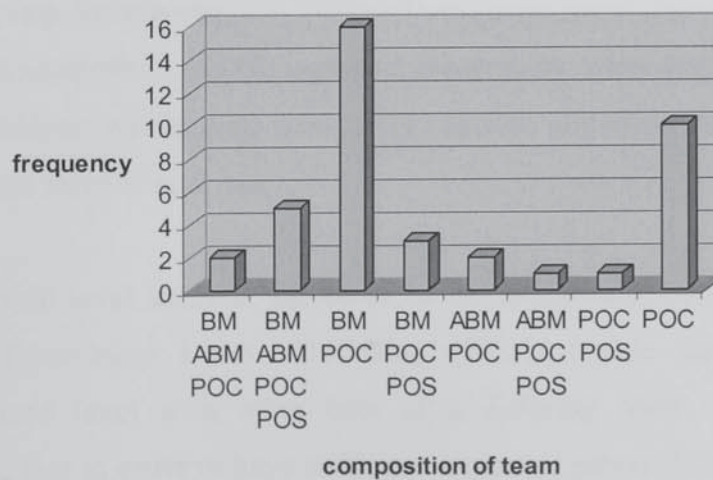
Analysis and Results

Analysis Strategy

Data was firstly considered at the individual level, and reliabilities calculated. The data was then manipulated to enable analysis at the team level. This required the removal of those teams from which there was insufficient response. If insufficient responses were used an unrepresentative view of the team is probable. With the remaining 40 teams, for those respondents who identified themselves as branch managers, items relating to ratings of manager behaviours and manager support were deleted for these individuals (and aggregated scores recalculated). Branch managers would be providing information on individuals exterior to the focus team i.e. their manager, thus by deleting these responses the data remains focused within the team. Team agreement was then calculated using RWG(j) (see discussion later in this chapter). For categorical variables Blau indexes were computed, the mean and SD were calculated for demographic variables. Following the aggregation of the study variables preliminary analysis was carried out to view the initial relationships between teamness, agreement of teamness and the study variables. The hypotheses were then addressed using hierarchical regression techniques. Stage I, which uses the teamness variable, the extent to which the team are well-defined along the continuum, as the focal variable is followed by stage II which focuses on the extent to which there is agreement on teamness.

Within Group Agreement

Bryk and Raundenbush (1992) note that researchers often neglect accounting for different levels of analysis within their work. This section discusses the treatment of the data with regards to the level of analysis.

Recently multi-level analysis has come to the forefront of research analysis. Techniques such as Hierarchical Linear Modelling (HLM) enable data to be analysed at the conceptualised level with other data of a differing level. Hofmann et al., (1999) recommend that in order to have sufficient statistical power, HLM analysis on teams should be performed on a minimum sample of 30 units, with at least 30 individuals within each

unit. Even with a response rate of 100% the current sample of data collected from Branch Offices could not meet these guidelines as the number of employees working in a Branch only exceeds 20 in city branches. Multi-level analysis using the HLM technique is therefore not appropriate in this context. An alternative analytical strategy was therefore pursued.

The concepts studied in this research are the individual's perceptions of their work environment and are therefore collected at the individual level. However, as the context is a work team, several individuals share the same objective work environment, aggregation of the individual level data is then a possibility. A limitation of aggregating individual level data to the team level is that variance at the individual level is ignored; assuming that data for individuals within the team are similar and any differences are not accounted for. To enable data at the individual level to be aggregated a shared psychological meaning of the work environment must exist. This was discussed in the literature review. It is therefore necessary to assess the within group agreement. Within group agreement refers to the extent to which individuals within a group provide approximately the same rating (Kozlowski & Hattrup, 1992). An established and often cited measure of within group agreement is the Rwg or Rwg(j) (James et al., 1984; 1993). The Rwg is used on single items, while the Rwg(j) is used for multiple item scales. The calculation involves the comparison of the observed group variance with an expected random variance. Rwg/Rwg(j) is often applied in estimates of agreement. A score of 0.7 and above indicates that there is statistical justification to aggregate the data / construct (Klein et al., 2000). An alternative approach to assessing within group agreement is used in the calculation of reliability and non-independence. Reliability assesses "the relative consistency of responses among raters" (Kozlowski & Hattrup, 1992:163); while non-independence refers to the extent to which individuals within a group responses are influenced or dependent on the group. Intraclass coefficients ICC (1) and ICC (2) are used to assess these. This approach, using ANOVA, contrasts the within group variance with the between group variance. When the variance between the within group, and between group variance is equal, this suggests that the similarity among group members is due to chance. A greater than chance outcome is indicated by small within group variance relative to between group variance. While there are "no definitive guidelines for determining acceptable values" (Jex & Bliese, 1999: 352:),

with reference to ICC(1) James (1982) indicates that measures of within group agreement generally range from 0 to 0.5. An acceptable value for the ICC(2) measure of group mean reliability is less clear. Jex and Bliese (1999) report such values as ranging between –0.2 to 0.8, referring to a scale, which achieved a reliability of 0.7 as indicating reliability. With reference to their study all variables were aggregated even when statistical support was not strong because the rationale existed theoretically.

The following table shows the values obtained for the variables assessed in study two. The Rwg(j) results show that the majority of scales achieved the 0.7 cut off point for team agreement (James et al., 1984). Although there were some exceptions to this, the focal dependent variables were all well above the cut off, suggesting sufficient agreement within groups regarding the study variables. The ANOVA column provides the data obtained from the analysis which was later used to calculate the ICC(1) and ICC(2) values. With the exception of two variables, control and role clarity, the results are all significant at the 0.05 level. This suggests that there are significant differences in the variables within groups compared to between groups variance, therefore these differences may be attributed to group membership and not chance. The ICC(1) values are on the whole between the 0 and 0.5, as referred to by James (1982) and supporting agreement within the groups. Jex and Bleise (1999) propose that ICC(2) values of 0.7 and above indicate reliability. With the exception of control and role clarity, the values obtained for this data set range between 3.55 and 6.87. Although below this cut off, the same approach will be adopted as that taken by Jex and Bliese (1999), who also obtained values below the 0.7 cut off. Aggregation is carried out based on theoretical rationale.

Table 11.02. Mean, SD, RWG(j), ICC (1) and ICC (2) for study variables

Variable	N	Mean	SD	RWG(j) Mean	ANOVA P	ICC 1	ICC 2
Teamness	40	2.76	.27	.71	.004	.030	.442
Well-being	40	3.42	.19	.82	.000	.042	.529
Job Satisfaction	40	3.60	.16	.92	.000	.045	.543
Org Commitment	40	3.19	.22	.77	.000	.040	.513
Control	40	2.14	.33	.59	.273	.005	.120
Feedback	40	3.63	.23	.81	.004	.030	.439
Role Clarity	40	3.67	.30	.72	.621	-.003	-.093
Work Demands	40	2.64	.34	.56	.000	.044	.535
Role Conflict	40	2.22	.30	.65	.000	.047	.557
Influence	40	2.37	.24	.67	.024	.021	.355
Job Security	40	2.62	.18	.79	.008	.027	.409
Mean				.73			
Participation	40	3.43	.03	.95	.000	.076	.676
Objectives	40	3.30	.14	.89	.000	.050	.569
Task	40	2.86	.27	.66	.002	.033	.464
Innovation	40	3.16	.08	.93	.000	.080	.687
Mean				.86			
TA Satisfaction	40	3.31	.24	.74	.000	.050	.611
TC Satisfaction	40	3.21	.19	.78	.000	.045	.544
PA Satisfaction	40	3.47	.22	.80	.000	.064	.633
RC Satisfaction	40	3.28	.17	.82	.000	.040	.512
ES Satisfaction	40	3.33	.25	.75	.000	.042	.526
EC Satisfaction	40	3.18	.17	.83	.001	.035	.481
LS Satisfaction	40	3.27	.18	.77	.000	.041	.522
Mean				.79			
Manager Satisfaction	40	3.26	.25	.74	.000	.062	.626
Team Satisfaction	40	3.43	.14	.81	.001	.037	.496
Colleague Satisfaction	40	3.10	.30	.73	.000	.063	.629
Mean				.76			

Results

Relationships between Teamness and other Study Variables

Figure 11.02. The theoretical model
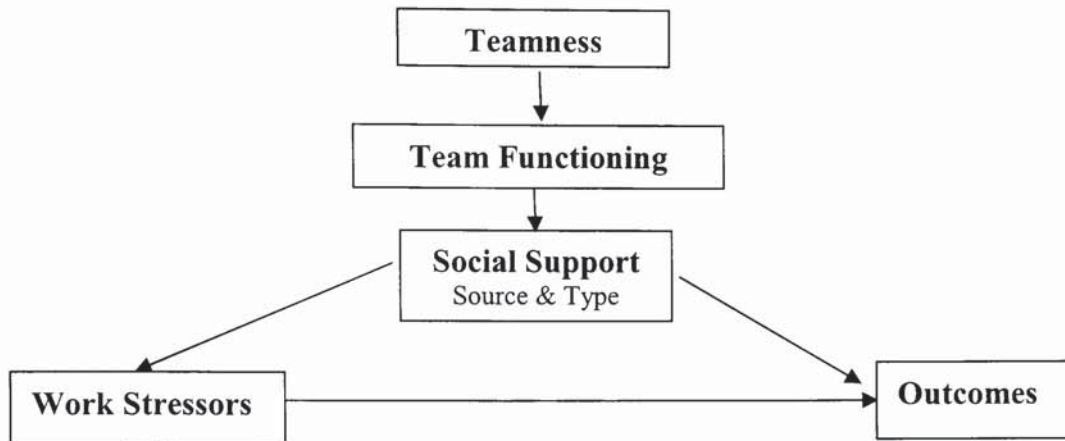
Pearson's Product Moment correlations were computed to explore the strength and direction of relationship between teamness and agreement of teamness on the study variables.

Teamness, teamness agreement, well-being outcomes and work stressors

Table 11.03.

Examination of this correlation matrix reveals that teamness accounts for 25% ($r=0.50$; $p=<0.01$) of the variance in well-being, 49% ($r=0.70$; $p=<0.01$) in job satisfaction, 31% ($r=0.56$; $p=<0.01$) in organisational commitment, 40% ($r=0.63$; $p=<0.01$) in feedback, 41% ($r=0.64$; $p=<0.01$) in role clarity and 18% ($r=0.42$; $p=<0.01$) in job security. Teamness also accounts for 11% ($r=0.33$; $p=<0.05$) of the variance in control, 10% ($r=0.32$; $p=<0.05$) in influence, 14% ($r=0.38$; $p=<0.05$) in work demands and 14% ($r=0.37$; $p=<0.05$) in role conflict. Agreement of teamness accounts for 12% ($r=0.35$; $p=<0.05$) of the variance in well-being and 12% ($r=0.35$; $p=<0.05$) in work demands. Agreement of teamness is not significantly related to the variables listed above.

Table 11.03. Intercorrelations for teamness, agreement of teamness and well-being, job satisfaction, organisational commitment, and work stressors (n=40 after pairwise deletion)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Teamness	1											
2. Teamness Agreement	0.18	1										
3. Well Being	0.50**	0.35*	1									
4. Job Satisfaction	0.70**	0.24	0.78**	1								
5. Commitment	0.56**	0.24	0.76**	0.90**	1							
6. Control	0.33*	0.10	0.33*	0.30	0.29	1						
7. Feedback	0.63**	0.10	0.56**	0.57**	0.40**	0.45**	1					
8. Role Clarity	0.64**	0.24	0.55**	0.75**	0.68**	0.07	0.63**	1				
9. Work Demands	-0.38*	-0.35*	-0.75**	-0.68**	-0.58**	-0.06	-0.41**	-0.57**	1			
10. Role Conflict	-0.37*	-0.09	-0.57**	-0.63**	-0.45**	-0.15	-0.67**	-0.67**	0.60**	1		
11. Influence	0.32*	0.06	0.46**	0.42**	0.45**	0.40**	0.44**	0.24	-0.12	-0.16	1	
12. Job Security	0.42**	0.13	0.55**	0.59**	0.60**	0.41**	0.25	0.33*	-0.41**	-0.27	0.46**	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 11.04. Intercorrelations for teamness, agreement of teamness and satisfaction with social support source and type (n=40 after pairwise deletion)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Teamness	1											
2. Teamness Agreement	0.18	1										
3. Manager Satisfaction	0.51**	0.22	1									
4. Team Satisfaction	0.56**	0.14	0.87**	1								
5. Colleague Satisfaction	0.50**	0.14	0.36**	0.44**	1							
6. Task Appreciation Satisfaction	0.45**	0.15	0.88**	0.87**	0.50**	1						
7. Task Challenge Satisfaction	0.54**	0.25	0.85**	0.82**	0.60**	0.89**	1					
8. Practical Assistance Satisfaction	0.58**	0.26	0.82**	0.85**	0.50**	0.87**	0.83**	1				
9. Reality Check Satisfaction	0.53**	0.32*	0.89**	0.89**	0.57**	0.88**	0.87**	0.87**	1			
10. Emotional Support Satisfaction	0.56**	0.12	0.87**	0.88**	0.60**	0.82**	0.81**	0.83**	0.86**	1		
11. Emotional Challenge Satisfaction	0.62**	0.18	0.88**	0.83**	0.58**	0.78**	0.82**	0.74**	0.88**	0.89**	1	
12. Listening support Satisfaction	0.53**	0.05	0.87**	0.87**	0.50**	0.83**	0.74**	0.80**	0.86**	0.89**	0.88**	1

**   Correlation is significant at the 0.01 level (2-tailed).
*   Correlation is significant at the 0.05 level (2-tailed).

Teamness, teamness agreement and satisfaction with social support

Table 11.04.

Examination of this correlation matrix reveals that teamness is positively and significantly related to satisfaction with all sources and all types of support at the $p=<0.01$ level. In relation to social support source, teamness explains the greatest variance in satisfaction with team support (31%; $r=0.56$; $p=<0.01$). With regards to type of support, teamness explains the greatest variance in satisfaction with emotional challenge (38%; $r=0.62$; $p=<0.01$). Agreement of teamness accounts for 10% ($r=0.32$; $p=<0.05$) of the variance in satisfaction with reality check. Agreement of teamness is not significantly related to the other social support sources or types.

Teamness, teamness agreement and team functioning

Table 11.05.

Examination of this correlation matrix reveals that teamness accounts for 42% ($r=0.65$; $p=<0.01$) of the variance in participation, 36% ($r=0.60$; $p=<0.01$) of the variance in clarity of objectives, 52% ($r=0.72$; $p=<0.01$) of the variance in commitment to task excellence and 49% ($r=0.70$; $p=<0.01$) of the variance in innovation. Agreement of teamness accounts for 13% ($r=0.36$; $p=<0.05$) of the variance in clarity of objectives.

Reporting of Regression Analyses

Control variables were identified using the procedure described in chapter 9. The standardised residuals of the outcome variables were used as the dependent variables in the following analysis. This method was adopted, as due to a relatively small sample size it was necessary to reduce potential shrinkage or inflation of the R squared, which can occur when entering control and independent variables into the regression analysis. The initial dependent variable is regressed on the control variables; the residuals are a linear transformation of the dependent variable, with the effects of the controls deducted, as indicated in the regression equation. The residuals are then used in subsequent analysis; this is essentially the regression analysis of the initial dependent variable having accounted for the effect of the control variables.

Table 11.05. Intercorrelations for teamness, agreement of teamness and team functioning (n=40 after pairwise deletion)

Variable	1	2	3	4	5	6
1. Teamness	1					
2. Teamness Agreement	0.18	1				
3. Participation	0.65**	0.15	1			
4. Objectives	0.60**	0.36*	0.66**	1		
5. Commit to excellence	0.72**	0.20	0.76**	0.62**	1	
6. Innovation	0.70**	0.25	0.87**	0.75**	0.84**	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

The tables report the proportion of variance accounted for by each model, the significance of the model as each factor is entered (if in a block) and the significance of the predictor variables, (change in R^2 (ΔR^2), beta weight (ß) and significance level (P)). Control variables were selected statistically from the demographic data collected. Those which influenced the outcome variables were used. When two similar demographic variables were significant they were entered into the regression simultaneously, and the one which accounted for the greatest variance was selected. For example, mean time in team, mean time in role and mean time in organisation. The control variables are: diversity of contract, proportion of males in the team, proportion of counter staff in the team, mean time in the organisation, proportion of branch managers in the team. They are entered as a block and are labelled stage 1.

Mediations will only be tested for in the analysis when a direct relationship was found between teamness and the dependent variable, as the impact of teamness on the dependent variables is the focus of the investigation.

Table 11.06. The direct effect of control variables on job satisfaction, well-being and organisational commitment

DV		Job Satisfaction		Well-being		Organisational Commitment	
	Controls	**ß**	**P**	**ß**	**P**	**ß**	**P**
1	Diversity of contract	-.473	.002	-.207	.179	-.336	.024
	Prop of males in team	-.167	.509	-.228	.404	-.220	.390
	Prop of counter staff	-.427	.092	-.258	.338	-.384	.132
	Mean time in org	-.294	.064	-.375	.029	-.458	.006
	Mean age	-.179	.238	-.189	.246	-.087	.566
	Prop of branch manager	.042	.763	.119	.426	-.038	.786
	Change in R^2	.482		.401		.472	
	Significance Level	.001		.007		.001	

STAGE I: Exploring the extent to which the unit are a well-defined team: Climate quality/ Teamness

Hypothesis 1

The greater the extent to which the unit are a team, the greater the well-being and performance outcomes in the team.

Figure 11.03. The theoretical model highlighting relationships tested in hypothesis 1
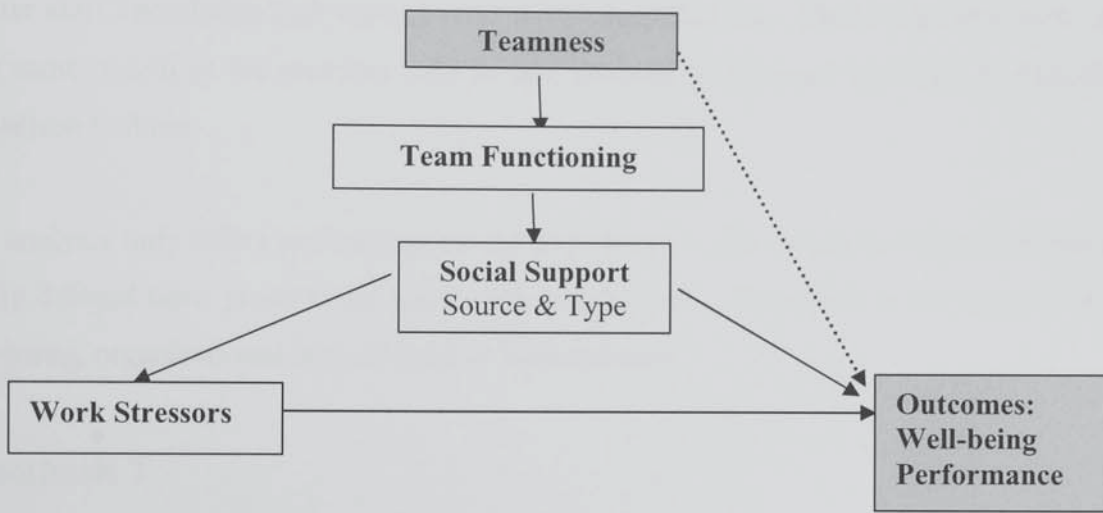
Table 11.07. Direct effect of teamness on job satisfaction, well-being and organisational commitment

DV		Job Satisfaction	Well-being	Organisational Commitment
2	IV ß: Teamness	.414	.243	.263
	Change in R^2	.172	.059	.069
	Sig level	.008	.131	.101

The results suggest that the further along the teamness continuum the work unit are the greater the team's level of job satisfaction. Teamness explains 17.2% of the variance in job satisfaction. Teamness explains 5.9% of the variance in well-being and 6.9% of the variance in organisational commitment, however these regressions are not statistically significant.

Table 11.08. Direct effect of teamness on waiting time and employee knowledge

DV		Knowledge	Wait Time
	Prior performance ß	-.388	.361
2	IV ß: Teamness	-.243	-.085
	Change R^2	.125	.007
	Sig level	.126	.596

As prior performance is often predicative of subsequent performance, prior results of counter staff knowledge and waiting time were controlled for. These measures were taken from same month of the previous year to take account of seasonal variation in Post Office transaction volume.

This analysis only offers partial support for hypothesis 1, the extent to which the unit are a clearly defined team predicts the team's job satisfaction. Teamness is not associated with well-being, organisational commitment or performance.

Hypothesis 2

The greater the extent to which the unit are a team, the less role clarity and work demands; and greater role clarity, job security, feedback control and influence experienced.

Figure 11.04. The theoretical model highlighting the relationships tested in hypothesis 2
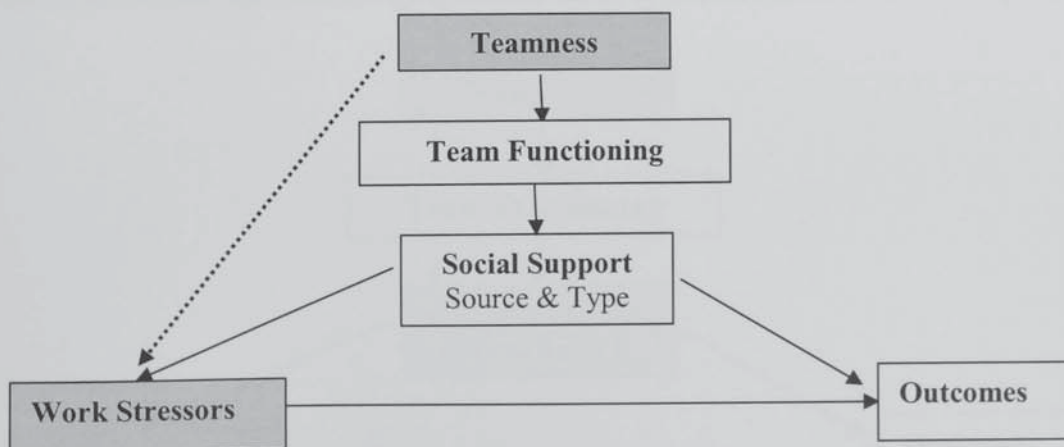
Table 11.09. The direct effect of teamness on work stressors

DV		Control	Feedback	Role Clarity	Work demands	Role conflict	Influence	Job security
2	IV ß: Teamness	.218	.480	.390	-.100	-.258	.182	.062
	Change in R^2	.047	.231	.152	.010	.067	.033	.004
	Sig level	.177	.002	.013	.539	.197	.262	.704

The regression analysis provide partial support for hypothesis 2. The further along the teamness continuum the work unit are, the higher the level of role clarity and feedback within the team. Teamness explains 23.1% of the variance in feedback and 15.2% of the variance in role clarity.

Hypothesis 3

a. The greater the extent to which the unit are a team, the greater the satisfaction with manager and team support.

b. The greater the extent to which the unit are a team will not influence satisfaction with colleague support.

c. The greater the extent to which the unit are a team, the greater the satisfaction with all types of support.

Figure 11.05. The theoretical model highlighting the relationships tested in hypothesis 3
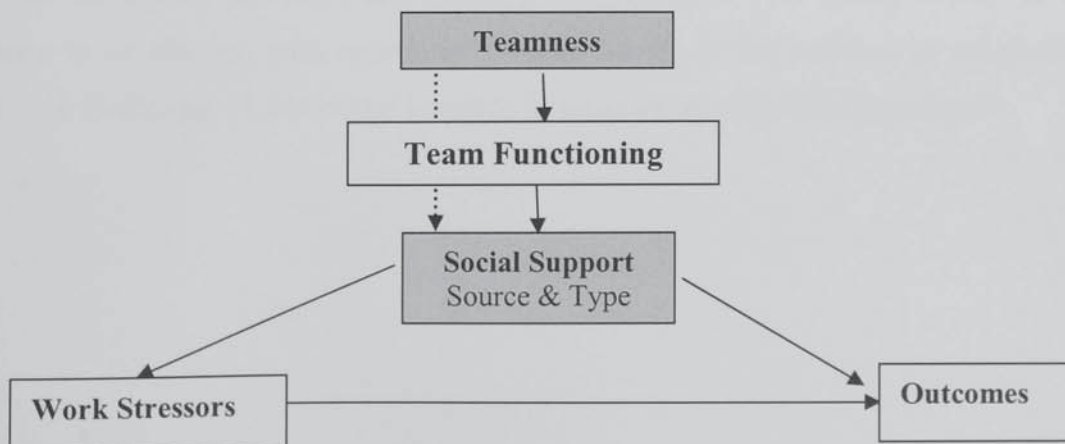
Table 11.10. The direct effect of teamness on satisfaction with source of support

DV		Satisfaction Manager support	Satisfaction Team support	Satisfaction Colleague support
2	IV ß: Teamness	.412	.434	.259
	Change in R²	.170	.189	.067
	Sig level	.008	.005	.107

The regression analysis provides full support for hypothesis 3a, the greater the extent to which the unit are a clearly defined team the higher the level of satisfaction with manager support and team member support. Teamness accounts for 17% of the variance in satisfaction with manager support and 18.9% of the variance in satisfaction with team member support. Hypothesis 3b is also supported, the extent to which the work unit are a team is not associated with satisfaction with colleague support.

Table 11.11. The direct effect of teamness on satisfaction with type of support

DV		Sat TA	Sat TC	Sat PA	Sat RC	Sat ES	Sat EC	Sat LS
2	IV ß: Teamness	.369	.473	.462	.406	.387	.408	.343
	Change R²	.136	.224	.213	.165	.150	.166	.118
	Sig level	.019	.002	.003	.009	.014	.009	.030

The regression analysis provides full support for hypothesis 3c, the greater the extent to which the unit are a clearly defined team the greater satisfaction with all types of support. Teamness accounts for 13.6% of the variance in satisfaction with task appreciation, 22.4% of the variance in satisfaction with task challenge, 21.3% of the variance in satisfaction with practical assistance, 16.5% of the variance in satisfaction with reality check, 15% of the variance in satisfaction with emotional support, 16.6% of the variance in satisfaction with emotional challenge, 11.8% of the variance in satisfaction with listening support.

Hypothesis 4

The greater the extent to which the unit are a team, the better the team functioning.
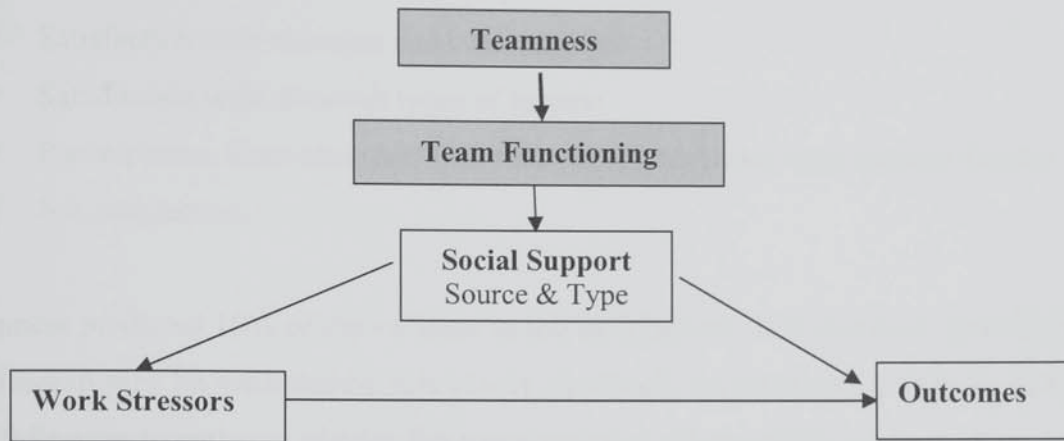
Table 11.12. The direct effect of teamness on team functioning: objectives, commitment to task excellence, innovation and participation

DV		Objectives	Task	Innovation	Participation
2	IV ß: Teamness	.267	.523	.458	.439
	Change in R^2	.071	.273	.210	.193
	Sig level	.096	.001	.003	.005

The regression analysis provides partial support for hypothesis 4; the greater the extent to which the unit are a clearly defined team the higher the level of innovation, participation, and commitment to task excellence. Teamness did not significantly predict clarity of objectives, however, teamness does account for 27.3% of the variance in task excellence, 21% of the variance in innovation and 19.3% of the variance in participation.

Hypothesis 5

The greater the extent to which the unit are a team, the more positive the rating of manager behaviours within the team.

This hypothesis was not tested as the measure was removed from the analysis. The basis for this decision was discussed in chapter 10.

Summary of Direct Relationships

The previous section, hypotheses 1 to 5 explored the direct relationship between teamness and well-being outcomes, performance, team climate, social support and work stressors. Teamness predicted greater:

- Role clarity and feedback
- Satisfaction with manager and team support
- Satisfaction with all seven types of support
- Participation, innovation and commitment to excellence team climate factors.
- Job satisfaction.

Teamness predicted 15% of the variance in job satisfaction. It is therefore possible that this relationship may be mediated by role clarity, feedback, social support, or team functioning. The following hypotheses address the more complex relationships between these variables; considering how team functioning impacts on social support, and how subsequent social support is then associated with job satisfaction.

Hypothesis 6

The greater the extent to which the unit are a team and social support will be mediated by team functioning.

Figure 11.07. The theoretical model highlighting the relationships tested in hypothesis 6
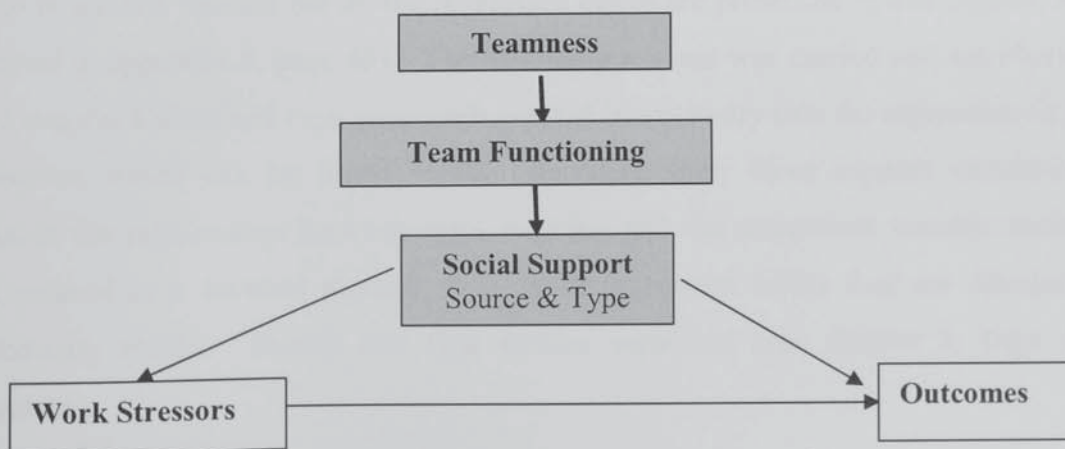
The mediation method, according to Baron and Kenny (1986) was followed to conduct this stage of analysis. As shown above there is a direct relationship between teamness and satisfaction with manager and team support, and satisfaction will all seven types of support; and between teamness and participation, innovation and commitment to excellence. Relationships are established between the explanatory variable and the dependent variables, satisfaction with manager and team support and the 7 types of support; and the explanatory variable and the mediators. There was not a direct relationship between teamness and satisfaction with colleague support, these hypothesis can therefore be rejected as a mediated relationship is subsequently not possible.

The mediation tables follow the same logic as in chapter 9, they contain 3 columns; detailing the beta weights (β), significance level (p) and R-squared change (ΔR^2). These tables are presented in full when presenting hypotheses 1. The second column shows the explanatory variables effect on the mediators, this is presented in full earlier in the chapter. As the standardised residuals of the dependent variables have been calculated the tables do not require detail of the control variable impact on the DV as this has been accounted for. Stage 1 represents the direct relationship between teamness and the DV. Stages 2a and 2b represent the mediation regression. 2a is the entry of the mediator variables, and 2b shows the effect of the explanatory variable on the dependent variable having accounted for the variance explained by the mediator variable.

The mediation tables will present social support source followed by social support type. Due to pragmatic reasons not all the regression tables are presented in this chapter, they are presented in appendix 8, page 451. The following process was carried out, satisfaction with social support source and type were each entered individually into the regression (it is these regressions which can be found in the appendix); then those support variables which mediated the relationship between team working and the dependent variable individually were entered in a forward method. It is these regression tables that are detailed in the forthcoming results. Source and type remain separated (see chapter 8, page 137 for discussion).

Source of support

When the social support source variables were entered separately in to the mediation regression, the results revealed that participation (p=0.565; ΔR^2= .006), innovation (p=0.609; ΔR^2= .006) and commitment to task excellence (p=0.432; ΔR^2= .013) mediate the relationship between teamness and satisfaction with manager support and participation (p=0.911; ΔR^2= .000), innovation (p=0.820; ΔR^2= .001) and commitment to task excellence (p=0.482; ΔR^2= .010) mediate the relationship between teamness and satisfaction with team support.

In order to see the differential impact of participation, innovation and commitment to excellence, on satisfaction with manager support the three team functioning factors were entered together in a stepwise regression analysis.

Table 11.13. The differential impact of participation, innovation and commitment to task excellence on the relationship between teamness and satisfaction with manager support

	DV: Manager support			
		ß	P	ΔR^2
1	**Teamness**	.412	.008	.170
2a	Participation	.543	.000	.295
2b	Teamness	.105	.565	.006
	Total R²			.549

The results show that belonging to a well-functioning team accounts for 17% of the variance in satisfaction with manager support; once the effect of participation has been accounted for, teamness only accounts for 0.06% of additional variance in satisfaction with manager support, beyond that explained by participation. The relationship between teamness and satisfaction with manager support is fully mediated by participation. Innovation and commitment to task excellence did not explain any additional variance in satisfaction with manager support beyond that explained by participation.

In order to see the differential impact of participation, innovation and commitment to excellence, on satisfaction with team support the three functioning factors were entered together in a stepwise regression analysis.

Table 11.14. The differential impact of participation, innovation and commitment to task excellence on the relationship between teamness and satisfaction with team support

	DV: Team support			
		ß	P	ΔR^2
	Teamness	.434	.005	.189
2a	Participation	.655	.000	.429
2b	Teamness	.018	.911	.000
	Total R^2			.429

The results show that belonging to well-functioning team accounts for 18.9% of the variance in satisfaction with team support; once the effect of participation has been accounted for, teamness accounts for no additional variance in satisfaction with team support, beyond that explained by participation. The relationship between teamness and satisfaction with team support is therefore fully mediated by participation. Innovation and commitment to task excellence did not explain any additional variance in satisfaction with team support beyond that explained by participation.

Type of support

When participation, innovation and commitment to excellence were entered separately in to the mediation regression, the results revealed that innovation (p=0.745; ΔR^2= .002), participation (p=0.609; ΔR^2= .000) and commitment to task excellence (p=0.718; ΔR^2= .003) mediate the relationship between satisfaction with task appreciation; innovation (p=0.529; ΔR^2= .005), participation (p=0.213; ΔR^2= .027) and commitment to task excellence (p=0.249; ΔR^2= .027) mediate the relationship between satisfaction with task challenge; innovation (p=0.282; ΔR^2= .023), participation (p=0.259; ΔR^2= .025) and commitment to task excellence (p=0.089; ΔR^2= .064) mediate the relationship between satisfaction with practical assistance; innovation (p=0.836; ΔR^2= .001), participation (p=0.556; ΔR^2= .007) and commitment to task excellence (p=0.431; ΔR^2= .013) mediate the relationship between satisfaction with reality check; innovation (p=0.636; ΔR^2= .005), participation (p=0.649; ΔR^2= .004) and commitment to task excellence (p=0.174; ΔR^2= .044) mediate the relationship between satisfaction with emotional support; innovation (p=0.509; ΔR^2= .009), participation (p=0.428; ΔR^2= .013) and commitment to task excellence (p=0.257; ΔR^2=.029) mediate the relationship between satisfaction with

emotional challenge; and innovation ($p=0.688$; $\Delta R^2 = .004$), participation ($p=0.825$; $\Delta R^2 = .001$) and commitment to task excellence ($p=0.329$; $\Delta R^2 = .023$) mediate the relationship between satisfaction with satisfaction with listening support.

In order to see the differential impact of team functioning on task appreciation, the sub-factors were entered all together in a stepwise regression analysis.

Table 11.15. Differential impact of team functioning mediating the relationship between teamness and task appreciation

		DV: TA satisfaction			
			ß	P	ΔR^2
		Teamness	.369	.019	.136
2a		Innovation	.537	.000	.328
2b		Teamness	-.062	.745	.002
		Total R^2			.330

The results show that belonging to well-functioning team accounts for 13.6% of the variance in satisfaction with task appreciation, once the effect of innovation has been accounted for, teamness accounts for only 0.002% additional variance in satisfaction with task appreciation, beyond that explained by innovation. The relationship between teamness and satisfaction with task appreciation is therefore fully mediated by innovation. Participation and commitment to task excellence did not explain any additional variance in satisfaction with task appreciation beyond that explained by innovation.

Table 11.16. Differential impact of team functioning mediating the relationship between teamness and task appreciation

		DV: TC satisfaction			
			ß	P	ΔR^2
		Teamness	.473	.002	.224
2a		Innovation	.604	.000	.365
2b		Teamness	.099	.592	.005
		Total R^2			.370

The results show that belonging to well-functioning accounts for 22.4% of the variance in satisfaction with task challenge, once the effect innovation has been accounted for, teamness accounts for only 0.005% additional variance in satisfaction with task challenge, beyond that explained by innovation. The relationship between teamness and satisfaction with task challenge is therefore fully mediated by innovation. Participation and commitment to task excellence did not explain any additional variance in satisfaction with task challenge beyond that explained by innovation.

Table 11.17. Differential impact of team functioning mediating the relationship between teamness and task challenge

	DV: PA satisfaction			
		ß	**P**	**ΔR^2**
	Teamness	.462	.003	.213
2a	Participation	.529	.000	.279
2b	Teamness	.206	.259	.025
	Total R^2			.304

The results show that belonging to well-functioning accounts for 21.3% of the variance in satisfaction with practical assistance; once the effect of participation has been accounted for, teamness accounts for only 0.025% additional variance in satisfaction with practical assistance, beyond that explained by participation. The relationship between teamness and satisfaction with practical assistance is therefore fully mediated by participation. Innovation and commitment to task excellence did not explain any additional variance in satisfaction with practical assistance beyond that explained by participation.

Table 11.18. Differential impact of team functioning mediating the relationship between teamness and reality check

	DV: RC satisfaction			
		ß	**P**	**ΔR^2**
	Teamness	.406	.009	.165
2a	Innovation	.551	.000	.304
2b	Teamness	.040	.836	.001
	Total R^2			.305

The results show that belonging to well-functioning accounts for 16.5% of the variance in satisfaction with reality check; once the effect of innovation has been accounted for, teamness accounts for only 0.001% additional variance in satisfaction with reality check, beyond that explained by innovation. The relationship between teamness and satisfaction with reality check is therefore fully mediated by innovation. Participation and commitment to task excellence did not explain any additional variance in satisfaction with reality check beyond that explained by innovation.

Table 11.19. Differential impact of team functioning mediating the relationship between teamness and emotional support

	DV: ES satisfaction			
		ß	P	ΔR^2
	Teamness	.387	.014	.150
2a	Participation	.523	.001	.273
2b	Teamness	.084	.649	.004
	Total R^2			.277

The results show that belonging to well-functioning accounts for 15% of the variance in satisfaction with emotional support; once the effect of participation has been accounted for, teamness accounts for only 0.004% additional variance in satisfaction with emotional support, beyond that explained by participation. The relationship between teamness and satisfaction with emotional support is therefore fully mediated by participation. Innovation and commitment to task excellence did not explain any additional variance in satisfaction with emotional support beyond that explained by participation.

Table 11.20. Differential impact of team functioning mediating the relationship between teamness and emotional challenge

	DV: EC satisfaction			
		ß	P	ΔR^2
	Teamness	.408	.009	.166
2a	Participation	.496	.001	.246
2b	Teamness	.149	.428	.013
	Total R^2			.259

The results show that belonging to well-functioning accounts for 16.6% of the variance in satisfaction with emotional challenge; once the effect of participation has been accounted for, teamness accounts for only 0.013% additional variance in satisfaction with emotional challenge, beyond that explained by participation. The relationship between teamness and satisfaction with emotional challenge is therefore fully mediated by participation. Innovation and commitment to task excellence did not explain any additional variance in satisfaction with emotional challenge beyond that explained by participation.

Table 11.21. Differential impact of team functioning mediating the relationship between teamness and listening support

	DV: LS satisfaction			
		ß	**P**	**ΔR^2**
	Teamness	.343	.030	.118
2a	Participation	.493	.001	.243
2b	Teamness	.042	.825	.001
	Total R^2			.244

The results show that being in a team accounted for 11.8% of the variance in support; once the effect of factors have been accounted for, teamness only accounts for 0.001% of additional variance in support, beyond that explained by participation. The relationship between teamness and support is therefore fully mediated by participation. Innovation and commitment to task excellence did not explain any additional variance in satisfaction with listening support beyond that explained by participation.

Summary Hypothesis 6

Source of support

Participation accounted for variance in satisfaction with manager and team support. Additional variance was not accounted for by the other team functioning factors, innovation and commitment to task excellence, therefore the results offer partial support for hypothesis 6.

Type of support

Participation accounted for variance in satisfaction with task challenge, emotional support, emotional challenge and listening support. Additional variance was not accounted for by the other team functioning factors, innovation and commitment to task excellence. Innovation accounted for variance in satisfaction with task appreciation and reality check, additional variance was not accounted for by the other team functioning factors, participation and commitment to task excellence, therefore the results offer partial support for hypothesis 6.

Hypothesis 7

The relationship between team functioning and outcomes will be mediated by social support.

Figure 11.08. The theoretical model highlighting the relationships tested in hypothesis 7
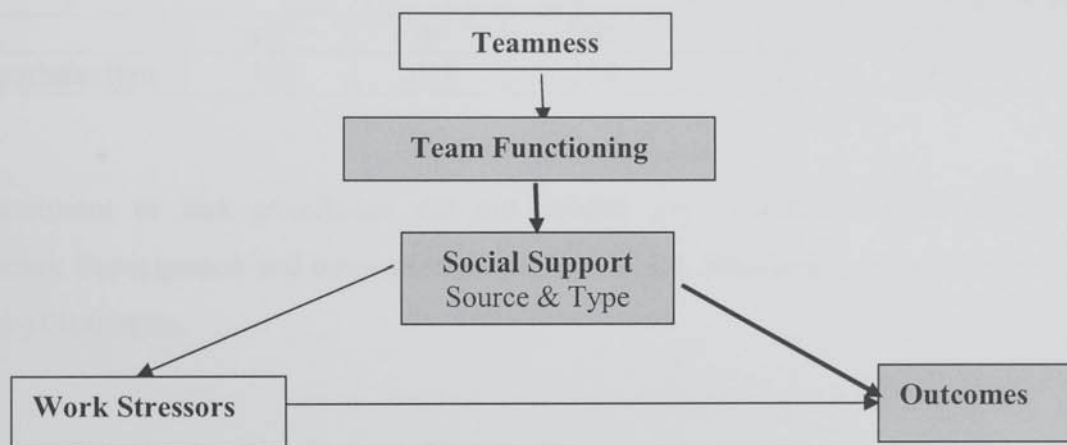
As the regressions analyses are exploratory, to test the theorised model; and teamness only had a direct effect on job satisfaction this is the only outcome variable that will be pursued in this analysis. Team functioning objectives and satisfaction with colleague support will also not be pursued further as they were not predicted by teamness.

The mediation method, according to Baron and Kenny (1986) was followed to conduct this stage of analysis. First it is necessary to establish relationships between the explanatory and outcome variables (stage 1). For pragmatic reasons these regressions are displayed in appendix 8, page 451 and a summary provided in this chapter. The second stage of testing

for mediation involved establishing the relationships between the explanatory and mediator variables, again for pragmatic reasons these are displayed in appendix 8 and a summary provided in this chapter. Following these initial two stages the mediation regression are then presented.

Stage 1: The direct effect of team functioning on job satisfaction

The direct effect of team climate on job satisfaction was explored using regression analyses. The effect of teamness is controlled for. Full tables are detailed in Appendix 8.

Table 11.22. The R^2 change and probability for the direct effect of team functioning on job satisfaction

	Participation		Innovation		Commitment to excellence	
	ΔR^2	P	ΔR^2	P	ΔR^2	P
Job satisfaction	.105	.026	.118	.018	.048	.141

Commitment to task excellence did not predict job satisfaction after controlling for teamness. Participation and innovation do predict the job satisfaction after accounting for the effect of teamness.

Stage 2: The direct effect on team functioning on social support.

The second part of mediation analysis requires that there is a direct relationship between the explanatory variable and the mediator variable. The following regressions show the direct effect of team functioning on social support. Source of support will be presented first followed by type of support.

Table 11.23. The R^2 change and probability for the direct effect of team functioning on social support

	Participation		Innovation		Commitment to excellence	
	ΔR^2	P	ΔR^2	P	ΔR^2	P
Sat Manager	.131	.012	.101	.030	.058	.103
Sat Team	.240	.000	.160	.005	.081	.051
Satisfaction TA	.187	.003	.193	.002	.082	.057
Satisfaction TC	.091	.033	.146	.006	.054	.104
Satisfaction PA	.091	.034	.064	.078	.009	.509
Satisfaction RC	.123	.016	.140	.010	.055	.115
Satisfaction ES	.127	.015	.088	.045	.007	.576
Satisfaction EC	.093	.038	.078	.058	.025	.288
Satisfaction LS	.126	.018	.070	.082	.015	.426

Mediation

The previous two stages of analysis have established a direct relationship between participation and innovation with specific social support types and source, and participation and innovation with job satisfaction, the third stage is to test for mediation of the significant relationships.

Source of support

Table 11.24. Satisfaction with manager support mediating the relationship between team functioning participation and job satisfaction

	DV: Job Satisfaction			
		ß	P	ΔR^2
1	Teamness	.414	.000	.172
	Participation	.424	.026	.105
2a	Satisfaction manager	.342	.012	.087
2b	Participation	.309	.151	.042
	Total R^2			.300

The results show that participation accounted for 10.5% of the variance in job satisfaction; once the effects of satisfaction with manager support have been accounted for, participation only accounts for an additional 4.2% of the variance in job satisfaction, beyond that

explained by satisfaction with manager support. Satisfaction with team support did not explain any additional variance in job satisfaction beyond that explained by satisfaction with manager support.

Table 11.25. Satisfaction with manager support mediating the relationship between team functioning innovation and job satisfaction

		ß	P	ΔR^2
	DV: Job Satisfaction			
1	Teamness	.414	.000	.172
	Innovation	.481	.008	.118
2a	Satisfaction manager	.342	.030	.087
2b	Innovation	.366	.149	.042
	Total R^2			.301

The results show that innovation accounted for 11.8% of the variance in job satisfaction; once the effects of satisfaction with manager support have been accounted for, innovation only accounts for an additional 4.2% of the variance in job satisfaction, beyond that explained by satisfaction with manager support. Satisfaction with team support did not explain any additional variance in job satisfaction beyond that explained by satisfaction with manager support.

Type of support

When satisfaction with the social support types were entered separately, the results revealed that satisfaction with task appreciation (p=.228; ΔR^2 =.022) mediated the relationship between participation and job satisfaction, as did satisfaction with task challenge (p=.156; ΔR^2 =.040), and satisfaction with reality check (p=.199; ΔR^2 =.033). Satisfaction with task appreciation (p=.333; ΔR^2 =.019) mediated the relationship between innovation and job satisfaction, as did satisfaction with task challenge (p=.225; ΔR^2 =.030), and satisfaction with reality check (p=.235; ΔR^2 =.028).

In order to see the differential impact of these types of support on job satisfaction, the relevant types of support were entered together in a stepwise regression.

Table 11.26. Satisfaction with task appreciation mediating the relationship between team functioning participation and job satisfaction

	DV: Job Satisfaction	ß	P	ΔR^2
1	Teamness	.414	.000	.172
	Participation	.424	.026	.105
2a	TA satisfaction	.381	.019	.116
2b	Participation	.245	.288	.022
	Total R²			.310

The results show that participation accounted for 10.5% of the variance in job satisfaction, once the effects of satisfaction with task appreciation have been accounted for, participation only accounts for an additional 2.2% of the variance in job satisfaction, beyond that explained by satisfaction with task appreciation. Satisfaction with task challenge and reality check did not explain any additional variance beyond that explained by satisfaction with task appreciation.

Table 11.27. Satisfaction with task appreciation mediating the relationship between team functioning innovation and job satisfaction

	DV: Job Satisfaction	ß	P	ΔR^2
1	Teamness	.414	.000	.172
	Innovation	.481	.008	.118
2a	TA satisfaction	.381	.019	.116
2b	Innovation	.284	.333	.019
	Total R²			.306

The results show that innovation accounted for 11.8% of the variance in job satisfaction, once the effects of satisfaction with task appreciation have been accounted for, innovation only accounts for an additional 1.9% of the variance in job satisfaction, beyond that explained by satisfaction with task appreciation. Satisfaction with team support did not mediate this relationship. Satisfaction with task challenge and reality check did not explain any additional variance beyond that explained by satisfaction with task appreciation.

Summary Hypothesis 7

Source of support

Satisfaction with manager support mediated the relationship between participation and job satisfaction, and between innovation and job satisfaction. Satisfaction with team support did not mediate either of these relationships as additional variance in job satisfaction was not accounted for beyond that explained by teamness, therefore the results offer partial support for hypothesis 7.

Type of support

Satisfaction with task appreciation mediated the relationship between participation and job satisfaction, and between innovation and job satisfaction. Satisfaction with task challenge and reality check did not account for any additional variance in job satisfaction beyond that explained by task appreciation. Satisfaction with practical assistance, emotional support, emotional challenge and listening support did not mediate either of these relationships as additional variance in job satisfaction was not accounted for beyond that explained by teamness, therefore the results offer partial support for hypothesis 7.

Hypothesis 8

The relationship between team functioning and work stressors will be mediated by social support.

Figure 11.09. The theoretical model highlighting the relationships tested in hypothesis 8
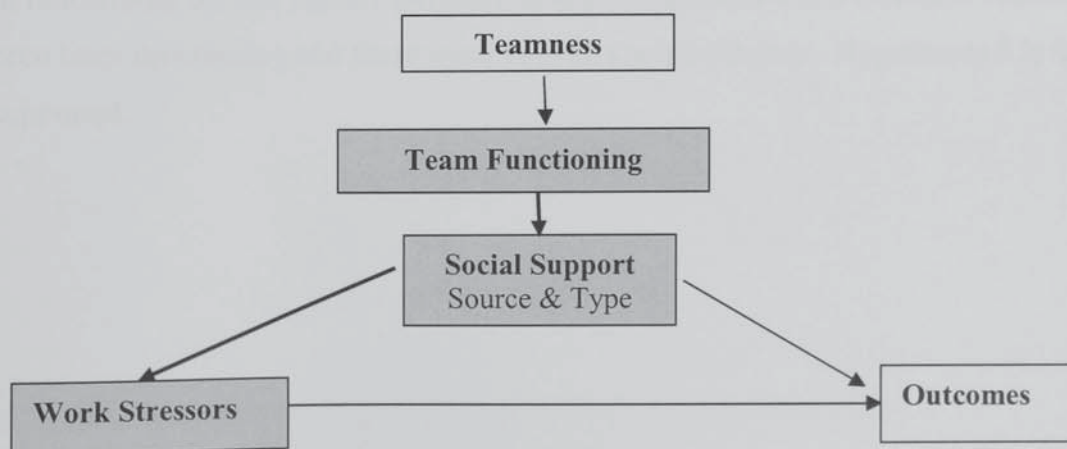
The mediation method, according to Baron and Kenny (1986) was followed to conduct this stage of analysis. Below, the direct relationships between team functioning factors and work stressors are established. Following this the direct relationship between team functioning factors and social support are tested. Following these initial two stages the mediation regression are presented.

Stage 1: The direct effect of team functioning innovation, participation and commitment to task excellence on feedback and role clarity

Table 11.28. The direct effect of team functioning on feedback and role clarity

	Participation		Innovation		Commitment to excellence	
	ΔR^2	P	ΔR^2	P	ΔR^2	P
Feedback	.046	.154	.063	.078	.067	.067
Role Clarity	.047	.148	.073	.057	.050	.135

Stage 2: The direct effect of team functioning participation, task excellence and innovation on social support

These relationships were presented in hypothesis 7, page 268.

Mediation

Team functioning did not predict feedback or role clarity therefore a mediated relationship between team functioning and these work stressors is not feasible. Hypotheses 8 is therefore not supported.

Hypothesis 9

The relationship between satisfaction with support and outcomes will be mediated by work stressors.

Figure 11.10. The theoretical model highlighting the relationships tested in hypothesis 9
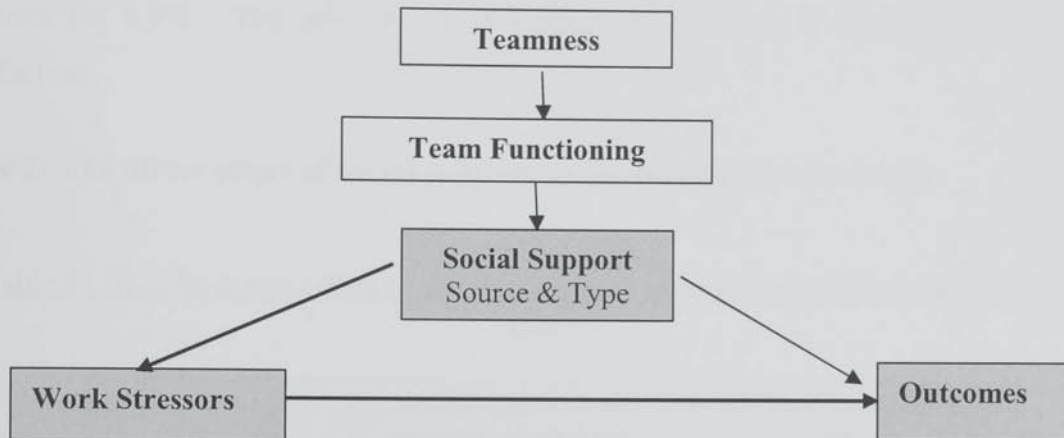
The mediation method, according to Baron and Kenny (1986) was followed to conduct this stage of analysis. Below, the direct relationships between social support and job satisfaction are established. Following this the direct relationship between satisfaction with support and feedback and role clarity are tested. Following these initial two stages the mediation regression are presented.

Stage 1: The direct effect of social support and job satisfaction

Table 11.29. The direct effect of satisfaction with support source on job satisfaction

	Satisfaction with manager support		Satisfaction with team support	
	ΔR^2	P	ΔR^2	P
Job satisfaction	.087	.045	.057	.107

Satisfaction with manger support accounts for 8.7% of the variance in job satisfaction. Satisfaction with team support does not significantly effect job satisfaction.

Table 11.30. The direct effect of satisfaction with support type on job satisfaction

	Sat TA		Sat TC		Sat PA		Sat RC		Sat ES		Sat EC		Sat LS	
	ΔR^2	P	ΔR^2	P	ΔR^2	P	ΔR^2	P	ΔR^2	P	ΔR^2	P	ΔR^2	P
JS	.116	.019	.098	.032	.061	.096	.099	.031	.058	.102	.054	.117	.059	.101

Satisfaction with task appreciation accounts for 11.6% of the variance in job satisfaction, while satisfaction with task challenge accounts for 9.8%, and satisfaction with reality check accounts for 9.9%. The other types of support do not have a significant effect on job satisfaction.

Stage 2: The direct effect of social support on feedback and role clarity

Table 11.31. The direct effect of satisfaction with support source on feedback and role clarity

	Satisfaction with manager support		Satisfaction with team support	
	ΔR^2	P	ΔR^2	P
Feedback	.082	.043	.063	.076
Role Clarity	.075	.066	.002	.784

Satisfaction with manager support accounts for 8.2% of the variance in feedback. Satisfaction with manager support nor team support significant effect role clarity and satisfaction with team support does not have a significant impact on feedback.

Table 11.32. The direct effect of satisfaction with support type on feedback and role clarity

	Sat TA		Sat TC		Sat PA		Sat RC		Sat ES		Sat EC		Sat LS	
	ΔR^2	P	ΔR^2	P	ΔR^2	P	ΔR^2	P	ΔR^2	P	ΔR^2	P	ΔR^2	P
FB	.078	.048	.100	.024	.060	.086	.096	.028	.021	.319	.031	.219	.034	.119
RC	.023	.314	.060	.102	.013	.451	.050	.137	.008	.548	.029	.258	.014	.429

Satisfaction with task appreciation accounts for 7.8% of the variance in feedback, while satisfaction with task challenge accounts for 10%, and reality check accounts for 9.6%. None of the social support types has a significant effect on role clarity.

Mediation

The previous two stages of analysis have illustrated a direct relationship between satisfaction with specific social support types and source and job satisfaction; and satisfaction with specific social support sources and types and feedback and role clarity, the third stage is to test for mediation of those significant relationships.

When entered into the mediation regression, the results reveal that role clarity and feedback do not mediate the relationship between social support and job satisfaction, hypothesis 9 is therefore not supported. These tables are displayed in appendix 8, page 473.

Summary

The analysis tests the above nine hypotheses about the relationships between teamness, team climate, social support, stressors and well-being outcomes. Regression analyses enabled exploration of the associations between variables. The results support a mediated relationship between teamness, participation and manager support; teamness participation and satisfaction with team support. The results also support a mediated relationship between teamness, team functioning innovation, and task appreciation, task challenge and reality check; and teamness, participation and satisfaction practical assistance, emotional support, emotional challenge and listening support. And finally, a mediated relationship between participation, satisfaction with manager support and job satisfaction; and between team climate participation, satisfaction with task appreciation and job satisfaction. In order the view the model as a whole, to see how well the data fits the original model, further analysis in the form of confirmatory path analysis was performed.

Confirmatory Path Analysis

The analysis so far has tested direct and mediated relationships in the proposed model. Two sets of path analyses were carried out to enable the model to be tested as a whole. These were confirmatory path analyses based on the proposed theoretical model, using the results from the hierarchical regression analyses. The analysis was carried out using the residuals as previously used in the regression analyses.

Figure 11.11. Confirmatory path analysis: Source of support
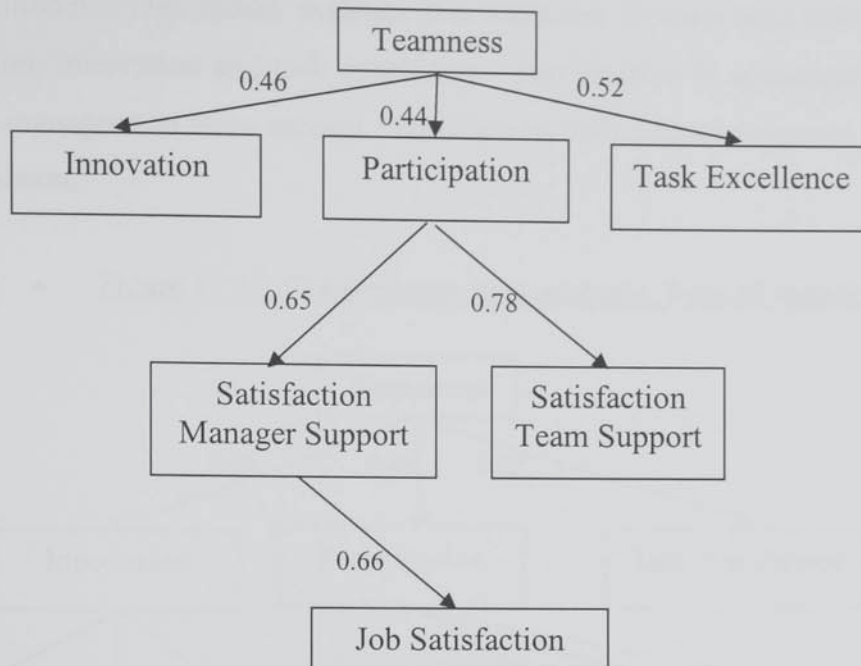
Table 11.33. Fit indecies: Source of support model

Fit Index	Value
Chi-squared	25.569
Degrees of Freedom	11
Probability	0.008
TLI	0.895
RMSEA	0.184
CFI	0.959

Table 11.34. Regression weights, standard error and probability for relationships in the source of support model

			Standardised Regression Weights	Regression Weights			
			Estimate	Estimate	S. E.	C.R.	P
Participation	←	Teamness	0.44	1.14	0.37	3.05	.002
Manager support	←	Participation	0.65	0.65	0.12	5.30	.000
Innovation	←	Teamness	0.46	1.19	0.37	3.22	.001
Task excellence	←	Teamness	0.52	1.36	0.35	3.83	.000
Team support	←	Participation	0.78	0.79	0.10	7.78	.000
Job satisfaction	←	Manager support	0.66	0.66	0.12	5.46	.000

With the exception of the RMSEA value, the fit indices suggest a relatively good fit of the proposed model. This model suggests that teamness is associated with higher levels of participation, innovation and task excellence. Participation is associated with satisfaction with both manager and team support. Satisfaction with manager support is associated with job satisfaction.

Figure 11.12. Confirmatory path analysis: Type of support
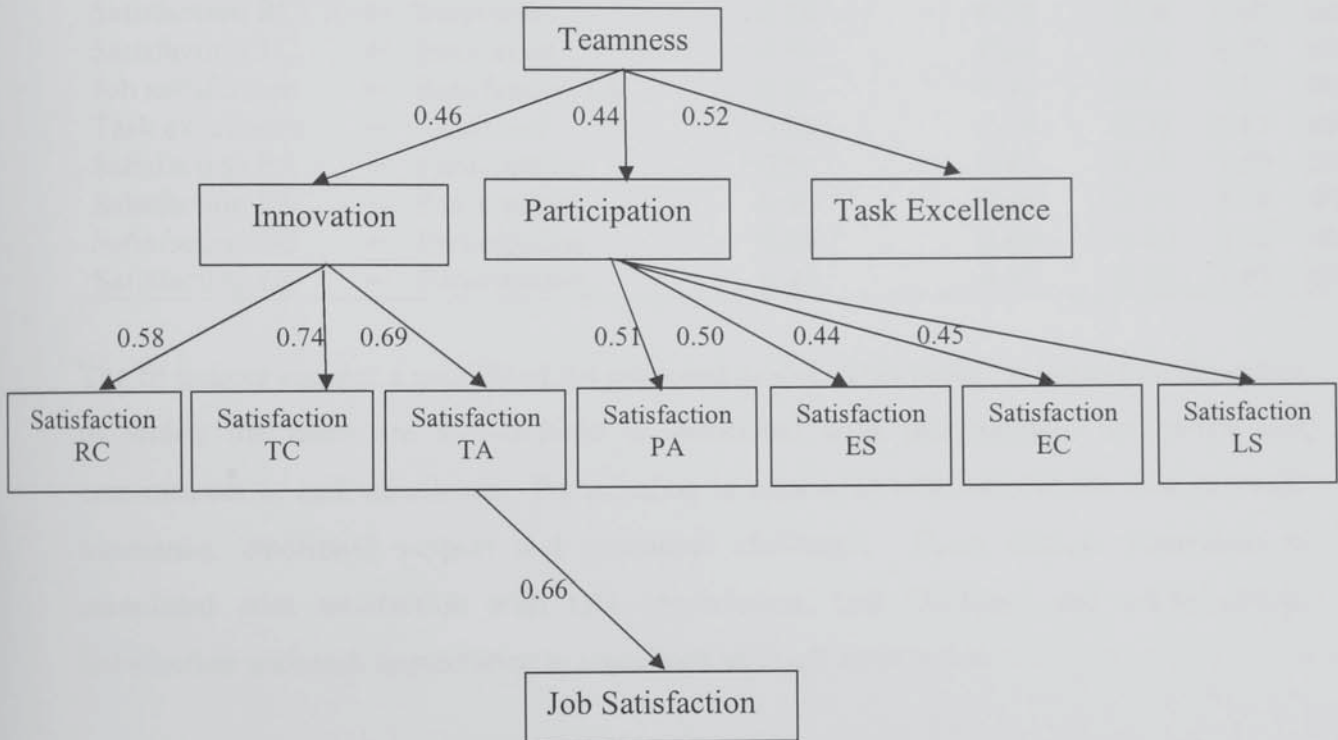
Table 11.35 Fit indecies: Type of support model

Fit Index	Value
Chi-squared	38.260
Degrees of Freedom	31
Probability	0.173
TLI	0.971
RMSEA	0.077
CFI	0.988

Table 11.36 Regression weights, standard error and probability for relationships in the source of type model

			Standardised Regression Weights	Regression Weights			
			Estimate	Estimate	S. E.	C.R.	**P**
Innovation	←	Teamness	0.46	1.19	0.40	3.22	.001
Participation	←	Teamness	0.44	1.14	0.37	3.05	.002
Satisfaction TA	←	Innovation	0.69	0.62	0.09	6.93	.000
Satisfaction RC	←	Innovation	0.58	0.50	0.08	6.03	.000
Satisfaction TC	←	Innovation	0.74	0.64	0.08	8.37	.000
Job satisfaction	←	Satisfaction TA	0.66	0.70	0.13	5.51	.000
Task excellence	←	Teamness	0.52	1.36	0.35	3.83	.000
Satisfaction PA	←	Participation	0.51	0.47	0.11	4.50	.000
Satisfaction ES	←	Participation	0.50	0.46	0.11	4.34	.000
Satisfaction EC	←	Participation	0.44	0.40	0.10	4.02	.000
Satisfaction LS	←	Participation	0.45	0.42	0.12	3.69	.000

The fit indices suggest a good fit of the proposed model. This model suggests that the extent to which the team are well-defined is associated with participation, innovation and commitment to task excellence. Participation is associated with satisfaction with practical assistance, emotional support and emotional challenge. Team climate innovation is associated with satisfaction with task appreciation, task challenge and reality check. Satisfaction with task appreciation is associated with job satisfaction.

Summary

Regression analyses were carried out to address the hypotheses. Firstly direct relationships between teamness and the study variables were explored, followed by exploration of mediated relationships between teamness and social support and team functioning and job satisfaction.

The result only provide partial support for hypothesis 1; the extent to which the team were well-defined was only associated with job satisfaction, not organisational commitment, well-being or performance.

Hypothesis 2 was also only partially supported, the extent to which the team were well-defined was associated with role clarity and feedback.

Support was found for hypotheses 3; the extent to which the team are well-defined was associated with all types of support, and support from the manager and team members. Teamness was not associated with colleague support.

Hypothesis 4 was generally supported; the extent to which the team are well-defined was associated with team climate participation, innovation and task excellence.

Hypothesis 5 was not tested.

Hypothesis 6 was partially supported; team climate participation mediated the relationship between satisfaction with manager and team support. Team climate participation also mediated the relationship between satisfaction with practical assistance, emotional support, emotional challenge and listening support, and team climate innovation mediated the relationship between satisfaction with task appreciation, task challenge and reality check.

Hypothesis 7 was partially supported, satisfaction with manager support mediated the relationship between team climate participation and job satisfaction, and satisfaction with task appreciation mediated the relationship between team climate innovation and job satisfaction.

There was no support for hypothesis 8, as team climate was not associated with role clarity or feedback and therefore no mediated relationships exist.

There was also no support for hypothesis 9, role clarity and feedback did not mediate the relationship between social support and job satisfaction.

The following section details analysis for hypotheses 10 to 17.

STAGE II: Teamness agreement: Climate strength

Hypothesis 10

The greater the agreement about the extent to which the unit are a team will predict well-being and performance outcomes.

Table 11.37. Teamness agreement on well-being, job satisfaction and organisational commitment

DV		Job Satisfaction	Well-being	Organisational Commitment
2	**IV:** Teamness Agreement	.330	.330	.330
	Change in R^2	.041	.109	.029
	Sig level	.210	.038	.290

Table 11.38. Teamness agreement on waiting time and employee knowledge

DV		Knowledge	Wait Time
	Prior performance ß	-.267	.269
2	**IV ß:** Teamness Agreement	-.021	-.158
	Change R^2	.000	.024
	Sig level	.897	.333

The analysis reveals that the consensus about the functional characteristics of the team explains 10.9% of the variance in well-being. Consensus about the functional characteristics of the team are not associated with performance, job satisfaction or organisational commitment. These results offer only partial support for hypothesis 10.

Hypothesis 11

The greater the agreement about the extent to which the unit are a team will predict work stressors.

Table 11.39. The direct effect of teamness agreement on work stressors

DV		Control	Feedback	Role Clarity	Work demands	Role conflict	Influence	Job security
2	IV ß: T Agreement	-.017	.090	.273	-.382	-.176	-.030	.012
	Change in R^2	.000	.008	.075	.146	.031	.001	.000
	Sig level	.915	.581	.088	.015	.278	.853	.942

The analysis reveals that the consensus about the functional characteristics of the team explain 14.6% of the variance in work demands. These results offer only partial support for hypothesis 11.

Hypothesis 12

a. The greater the agreement about the extent to which the unit are a team will predict satisfaction with support source.

b. The greater the agreement about the extent to which the unit are a team will predict satisfaction with support type.

Table 11.40. The direct effect of teamness agreement on satisfaction with social support source

DV		Satisfaction Manager support	Satisfaction Team support	Satisfaction Colleague support
2	IV ß: T Agreement	.261	.150	.132
	Change in R^2	.068	.023	.017
	Sig level	.103	.355	.418

The analysis reveals that consensus about the functional characteristics of the team does not significantly explain any variance in satisfaction with support from manager, team members or colleagues. Therefore hypothesis 12a is not supported.

Table 11.41. The direct effect of teamness agreement on satisfaction with social support types

DV		Sat TA	Sat TC	Sat PA	Sat RC	Sat ES	Sat EC	Sat LS
2	IV ß: T Agreement	.181	.281	.266	.380	.170	.100	.014
	Change R^2	.033	.079	.071	.144	.032	.010	.000
	Sig level	.263	.080	.098	.016	.269	.539	.931

The analysis reveals that the consensus about the functional characteristics of the team explains 14.4% of the variance in satisfaction with reality check, therefore hypothesis 12b is partially supported.

Hypothesis 13

The greater the agreement about the extent to which the unit are a team will predict team functioning.

Table 11.42. The direct effect of teamness agreement on team functioning

DV		Objectives	Task	Innovation	Participation
2	IV ß: T Agreement	.414	.117	.238	.101
	Change in R^2	.171	.014	.057	.010
	Sig level	.008	.473	.138	.535

The analysis reveals that the consensus about the functional characteristics of the team explains 17.1% of the variance in team climate clarity of objectives, therefore offering partial support for hypothesis 13.

Summary of the direct relationships

The previous section, hypotheses 10 to 13 explored the direct relationship between consensus about the functional characteristics of the team and outcomes, work stressors, social support and team climate.

Consensus about the functional characteristics of the team predicted the following:

- Well-being
- Satisfaction with reality check
- Work demands
- Team functioning: clarity of objectives.

The following hypotheses tested for more complex relationships between climate strength, the extent of agreement within the team regarding the functional characteristics of the team and the dependent variables. The moderating effect of team consensus was explored. The investigation of moderated relationships is relatively recent in comparison to mediated relationships (Baron & Kenny, 1986). A moderator is a variable which "partitions a focal variable into subgroups that establish its domains of maximal effectiveness in regard to a given dependent variable" (Baron & Kenny, 1174:1986). This involves the creation of a new variable, which is the product of the focal variable and the moderator variable. This new variable is then entered into the regression together with the original two variables.

Hypothesis 14

The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and well-being and performance outcomes.

Hypothesis 15

The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and team functioning.

Hypothesis 16

The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and social support source and type.

Hypothesis 17

The greater the agreement about the extent to which the unit are a team will moderate the relationship between the extent to which the unit are a team and work stressors.

The moderation regression analyses carried out were all insignificant (the full tables can be found in appendix 8, page 481), therefore suggesting that agreement of teamness does not interact with teamness. Therefore the benefits associated with teamness are not influenced by teamness agreement.

Discussion

The following discussion addresses points specific to the study detailed in this chapter. To reduce repetition, discussion themes which relate to both studies one and two are raised in the following chapter.

Teamness Quality

In this study teamness, the extent to which the team viewed themselves on a continuum from being a well-defined team to being a quasi team, was used as the starting point of enquiry. The teamness measure was created using the 5 items from the original team categorisation index, in a scale format. Teams towards the well-defined end of the continuum were more likely to have clear team objectives, be interdependent, have specific roles within the team for members and be recognised as a team by people external to the team than those teams towards the quasi team end of the continuum. The study reported in this chapter suggests that such differences are associated with higher levels of job satisfaction, which may be related to how well the team function or work together and support each other. Four aspects of team functioning were assessed: participation, innovation, commitment to task excellence

and identification with objectives. Those teams towards the well-defined end of the continuum reported higher levels of participation, innovation, and commitment to task excellence than those teams towards the quasi end of the continuum. Clear team objectives, interdependence, specific roles and recognition of the group as a team therefore contributed to these aspects of team functioning. The extent to which the team were well-defined was not associated with identification with team objectives. However one of the items of the teamness scale assesses if the team have clear objectives. This finding would suggest that team members do not necessarily have to agree with the team objectives, be committed to them, or think that they are worthwhile, individually or to the organisation, or that the objectives are realistic or achievable, the team members just need to be clear about what the objectives are to be categorised as a well-defined team. Positive team functioning in terms of high levels of participation, innovation and commitment to task excellence were associated with higher levels of satisfaction with support from the manager and team members, and with satisfaction with all types of support: task appreciation, task challenge, practical assistance, reality check, emotional support, emotional challenge, and listening support.

The participation scale assesses how information is shared within the team. High levels of participation therefore imply frequent interaction and involvement in decision-making amongst team members. High levels of participation are associated with satisfaction with manager and team member support; and satisfaction with practical assistance, emotional support, emotional challenge and listening support. The results suggest that in such an environment instrumental and emotional communications are more effective. When the team functions well, through high levels of participation, this therefore contributes to the emotional needs of the team being met by the manager and team members. These relationships support the earlier work of Lantz and Laflamme (1996), who also reported positive associations between involvement in the team and support sources. In addition, they report that the exchange of emotional support was richest in teams characterised by high levels of involvement. Participation is associated with both types of emotional social support, support and challenge.

The innovation scale assesses the capacity of the team to provide practical assistance and encourage each other in finding new ways of executing tasks. High levels of innovation are associated with satisfaction with support types: task appreciation, task challenge, and reality check. An environment in which creativity and development are a focus is associated with affective support types, and social comparison. Ways in which tasks are executed are questioned which leads to new ways of doing things, while the task appreciation aspect of support, enables the individual to feel confident about their work ability and enhances their self-esteem. Anderson and West (1998) argue that a necessary condition of innovative outcomes is enacted support. The findings reported in this thesis do not support this argument, as innovation was not associated with practical support, rather support types which are associated with self-esteem development; while high levels of participation were associated with enacted support. Suggesting that high levels of participation involve a degree of activity.

The commitment to task excellence scale assesses team members concern for high levels of performance and a focus on achieving and maintaining high standards. High levels of task excellence did not account for additional support experienced beyond that associated with high levels of participation and innovation within the team. Thus suggesting that these two factors are most important in contributing to a supportive environment.

Teamness is related to team functioning, which is associated with satisfaction with manager support and all support types. When satisfaction with support is evident, this suggests that the interpersonal needs of the team members are being met. Therefore good team functioning can be considered to contribute to a supportive environment.

Teamness was associated with higher levels of feedback and role clarity, however good team functioning (high levels of participation, innovation and commitment to task excellence) did not mediate this relationship. Satisfaction with manager support, reality check, task appreciation and task challenge were also associated with high levels of feedback in well-defined teams, but support did not mediate the relationship between good team functioning and feedback. This would suggest that working in a well-defined team

through the fulfilment of the functional requirements of a team, perhaps mediated though support is associated with greater feedback. Working in a well-defined team was associated with role clarity, this supports earlier research on the relationship between reduced role ambiguity in teams (Carter, 2000). The functioning of the team was not related to work stressors, as hypothesised. Previous research, Peiro et al., (1992), using a slightly different composition of factors to assess team functioning did find a relationship between team functioning and role clarity and role conflict. This would suggest that caution should be exercised when generalising across studies which group together several subscales to measure functioning as they do not assess the same aspects of working together.

Satisfaction with manager support mediated the relationship between participation and job satisfaction. Thus suggesting that when a team functions well in terms of high levels of participation, team members are more likely to express higher levels of satisfaction with support from their manager, which is associated with job satisfaction. Satisfaction with task appreciation mediated the relationship between innovation and job satisfaction, thus suggesting that when a team functions well in terms of innovation, team members are more likely to be satisfied with the extent to which appreciation is expressed for the work that they do and that they are recognised for their effort. These different paths to job satisfaction suggest that experiences contributing to satisfaction at work are multidimensional, depending on aspects of how the team work with each other and the supportive environment.

Working in a well-defined team was not related to team performance. The performance indices used were very specific and such indicators of performance may not be therefore be related directly to quality of team working. There is clearly a relationship between teamwork and performance (Wellins et al., 1994) therefore in this case it is possible that alternative indicators of performance would have yielded different findings. The performance measures may not be consistent with how the team is rated internally therefore not representative of team working.

This study further contributes to the understanding of the relationship between working in a well-defined team and well-being. Suggesting that the extent to which the team work

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together as a well-defined team influences the way in which they function, which is associated with a supportive environment in which the needs of the team members are met. Job satisfaction is associated with the extent to which the unit are a team and is achieved through high levels of participation and innovation, which contribute to the experience of support.

Teamness Agreement

The second set of hypotheses formulated from the literature review focused on the extent to which there was agreement on the functional characteristics of the team (teamness strength). A higher level of agreement was associated with higher levels of team well-being. This supports the findings of Bliese and Halverson (1998), who offer the following explanation for the relationship: when there is less diversity in the team's understanding of their environment, group pressures are less likely to be triggered, which would then lead to a stressful environment, resulting in a negative effect on well-being. A higher level of agreement on the functional characteristics of the team (teamness strength) was not associated with other outcome variables, job satisfaction, organisational commitment or performance. These findings do not therefore support those reported by Gonzalez-Roma et al., (2002) who reported a relationship between team climate agreement and job satisfaction.

Teamness strength was associated with identification with team objectives, therefore suggesting that when there is strong agreement within the team as to their functional characteristics that this has a positive effect on the understanding, commitment to and belief in achieving the objectives and goals of the team.

Teamness strength was also associated with satisfaction with reality check. This type of support involves the individual making comparisons between themselves and others. The result would suggest that when there is agreement as to the team's understanding of their environment, diversity is reduced and therefore comparisons (reality check) are more favourable because there is less difference between the individual and the others that they are making comparisons with, this is therefore perceived as more supportive as the

individual receives confirmation that they are similar along the comparable dimension as others to whom the individual identifies (e.g. team members).

Teamness strength was also associated with perceived lower work demands than when the climate is not strong. This again may be explained by the reduction in diversity (Bliese & Halverson, 1998) and therefore greater agreement within the team. Because the team agree about fundamental aspects of their work environment, such as the functional characteristics of the team, and the objectives of the team the purpose of the work is clear and there will be less conflict surrounding how to execute the work and internal politics. Therefore, the work can be carried out and focus remain on the task itself, thus reducing the additional demands associated with workload.

Gonzalez-Roma et al., (2002) exploring the impact of climate strength on the relationship between climate quality and team outcomes, reported interaction effects. Such moderation effects were tested for in study two reported in this thesis. But interaction effects were not noted. Teamness strength was not found to moderate the relationship of teamness quality on the other study variables. These negative findings support Kozlowski and Doherty (1989) and Lindell and Brandt (2000).

The findings discussed in relation to climate strength cannot be generalised or compared with any confidence to the other studies. On close inspection, it is clear that many different types of climate have been assessed in the studies, therefore explaining inconsistencies in direct and moderated relationships.

The differences in relationships reported in this study between teamness and the study variables; and teamness strength and the study variables lends support to the current research exploring climate quality and strength, as the results from this study illustrate that they are different concepts which interact differently with the variables studied. The associations between teamness strength and outcome variables relate to a shared understanding; teamness strength was related to identification with team objectives and reality check, which both

encompass aspects of comparison and shared meaning, while teamness was related to many more and varied study variables.

The psychological benefits resulting from teamwork are associated with aspects of team functioning, social support from the manager of the team and also team members and task related and emotional support types. The extent to which the unit were a team influenced the job satisfaction of team members: the more well-defined the team the higher levels of job satisfaction experienced than when the team were less well-defined. This difference can be accounted for by higher levels of participation, innovation and commitment to task excellence within the team, these aspects of team functioning are associated with higher levels of satisfaction with all types of support and support from the team manager and fellow team members. Teamness agreement, the climate strength were important in predicting well-being.

Limitations

As in the previous study reported in this thesis, this study also used a cross-sectional design. The limitations associated with this study design are discussed in the following chapter. Common method variance was identified as a limitation in the previous study, to address this an objective measure of performance was included in the study. However, problems were identified with these data. The performance data provided by the organisation was mystery shopper data, whereby an individual enters a Post Office and rates their customer experience along several scales. Some of the data relating to subjective aspects of shopper ratings was not reliable. This limited the scope of performance outcomes that could be explored, to those measures that were objective, namely time spent queuing and if the counter staff answered a product question correctly. It is possible that if alternative performance data had been provided, for example sales data, relationships between team working, social support and performance may have been found.

As the study was conducted at the group level, it was necessary to obtain sufficient responses from members of each team to provide a representative picture of the team. Obtaining sufficient responses from a large number of teams is therefore extremely

challenging compared to obtaining individual responses for individual level analysis. The sample size obtained was 40 teams. While this compares very favourably to sample sizes in other team research (Kline, 2001, 13 teams; Van Yperen & Snijders, 2000, 31 teams; O'Reilly, Caldwell & Barnett, 1989, 20 teams), a larger sample would provide additional statistical power to the results.

The analysis considered social support in detail, and consequently many hypotheses were tested, there is therefore more chance of type 1 error inflation. To address this a probability level of 0.05 was adopted, however, many of the significant interactions did yield probability levels of 0.001. Interpretations should therefore be made with some caution.

Directions for future research are proposed in the following chapter.

Chapter Summary

Within the Michigan model framework, incorporating the concept of team functioning, the study reported in this chapter has explored the effects of social support from multiple sources and multiple types of support on the relationship between stressors and well-being in the context of the team and team functioning. Such an approach has previously not been adopted. The results suggest that in well-defined teams, team members function more effectively, which is associated with satisfaction with social support from the team manager and team members and all types of support. Working in a well-defined team and the resulting experience of work, contributes to higher levels of job satisfaction. Teamness agreement is associated with higher levels of well-being, identification with team objectives, lower work demands and higher levels of satisfaction with reality check. Agreement on teamness was not found to mediate the relationship between teamness and work variables.

The proceeding chapter, drawing on the results reported in the two studies presented in this thesis, addresses the findings in relation to theory and past research. The contribution of the research to theory, and the advancement of understanding social support within a work context are discussed. Limitations and future directions for research are also considered.

Chapter 12

General Discussion and Conclusion

Chapter Overview

This chapter will integrate the results of the two studies reported in this thesis. The research findings are summarised, followed by a general discussion exploring the results in relation to theory and the contribution the work makes theoretically and empirically in the study of social support and teams within a work context. Study specific discussions are presented for each in the corresponding results chapters. The limitations of the research are addressed, and the theoretical and practical implications reviewed. Future directions for research are explored and the conclusion presented.

Summary of Research Findings

The first study reported in this thesis addressed research questions enquiring about team work and well-being, exploring the role of social support in this relationship, within a service sector organisation. The research questions also addressed differences in the experience of social support types and social support from different sources for people who work in a team and those who do not. The study provided evidence that membership to a well-defined team is associated with higher levels of well-being, job satisfaction and organisational commitment. These benefits could be accounted for by higher levels of satisfaction with support from colleagues and the team manager. The results suggest that satisfaction with the team task support (task appreciation and task challenge) and emotional supports (emotional support and emotional challenge) are greater in well-defined teams and that these support types are associated with higher levels of well-being, job satisfaction and organisational commitment.

An advancement of our understanding of working in a team and the experience of social support was provided by study two. Research questions focused on working in a team, exploring the extent to which the work unit were a team and the extent of teamness agreement on social support and associated outcomes. The results showed that teamness was associated with higher levels of job satisfaction. Members of teams further along the well-defined team continuum were more likely to engage in behaviours that result in better team functioning in terms of participation, innovation and commitment to task

excellence. Higher levels of participation, innovation and commitment to task excellence, accounted for variance in job satisfaction, beyond that explained by teamness. Team functioning was also associated with social support processes within the team. The greater the extent to which the unit worked as a team was associated with satisfaction with support from fellow team members, support from the team manager, and satisfaction all types of support. Satisfaction with manager support and satisfaction with task appreciation accounted for the higher levels of job satisfaction experienced by those working in teams towards the well-defined end of the continuum.

General Discussion

Study one, conducted at the individual level reported that team members experience greater well-being, job satisfaction and organisational commitment than those people working in quasi teams; while in study two, teamness was associated with job satisfaction, and agreement of teamness was associated with better well-being. The differences reported between study one and two may be accounted for by the different levels at which the data was analysed. Differences were reported in the stress research when considering constructs at different levels of analysis as different processes may operate at the different levels (Ostroff, 1993; Bliese & Jex, 1999). Replication would be required to substantiate this explanation. However, the general finding remains clear, working in a well-defined team is associated with positive outcomes for the team members.

Study two also included a measure of team performance. Teamness was not associated with the performance of the team. This finding was unexpected as there is substantial evidence for performance benefits of team working (Applebaum & Batt, 1994). Such studies may however only compare performance prior to teamwork and then following team creation. This study did not find differences in performance as a result of the extent to which the unit met the functional requirements of a team. Perhaps for teams to perform well it is sufficient for the team members to feel that they are a team, a condition met by all work units. However, the positive team processes and social support that are associated with working in a well-defined team are associated with performance (Brown & Leigh, 1996; Rosenfeld & Richman, 1998; Hyatt & Ruddy, 1997). And the positive attitudinal outcomes for team members, i.e. job satisfaction is also associated with

performance (Wright & Cropanzano, 2000; Judge et al., 2001). Based on this evidence an alternative proposition as to why working in a team was not associated with performance is based on the performance measure itself. Due to the unreliable nature of the performance data, two indices were removed; time waiting to be served and knowledge of the counter staff remained. It is possible that these indices are not representative of team performance alone and are confounded by aspects of individual performance. Counter staff knowledge is an individual attribute, but would be affected by training and further communication within the team to consolidate knowledge. Therefore combining individual and team level influences. Time spent queuing to be served is also confounded by the number of counters available in the Post Office and the time of day at which the data was collected. Therefore again this measure of performance is influenced by factors beyond the control of the team.

Employees working in teams were more satisfied with support from their manager than those working in quasi teams. This finding was also supported in the second study; those employees in teams further along the well-defined continuum were more satisfied with manager support than those towards the quasi team end of the continuum. The studies support previous research evidence which advocates the key role of manger support in promoting well-being (Beehr, King & King, 1990; Buunk et al., 1989; Fenlassen & Beehr, 1994). Results from study one showed that team members were more satisfied with support from colleagues. This was unexpected, as intuitively there is a greater incentive to help fellow team members as the same goal is being pursued, it is therefore within the interest of team members to ensure that the emotional and tangible needs of their fellow team members are being met through support provision; than to support colleagues who are not working towards the same goal. Study two did not replicate this finding; satisfaction with team member support was greater in well-defined teams than in less well-defined teams. Unfortunately the equivocal findings mean that no clear conclusion can be reached regarding working in a team and resulting satisfaction with team member and colleague support. However, the findings do support the leader/team member exchange literature which suggests that employees can differentiate between sources of interpersonal communications (e.g. Etchegaray et al., 2002).

Both studies reported in this thesis found a positive association between team working and satisfaction will all types of support. In both studies, satisfaction with task

appreciation accounted for variance in job satisfaction. (Study one also reported that satisfaction with emotional challenge contributed to job satisfaction beyond that explained by task appreciation). Study one also found that task appreciation and task challenge accounted for unique variance in organisational commitment and well-being. These studies advocate the importance of affective support types in the experience of job satisfaction, well-being and organisational commitment. This is contrary to Schenk et al., (1997) who suggested that tangible support plays a key role in well-being over affective support. Ducharme and Martin (2000) also report that both affective and tangible support types have parallel effects on job satisfaction, complementing rather than substituting for each other. Studying social support types in greater detail in which affective support is further categorised into task appreciation, task challenge, emotional support, emotional challenge and reality check reveals a different relationship, suggesting a dominant contribution of task appreciation on the experience of job satisfaction. Sources and types of support were most strongly associated with the outcome variables rather than the work stressors themselves. This supports LaRocco and Jones (1978), Beehr (1985) and Ducharme and Martin (2000) amongst others who report evidence for the main effects of social support on outcomes, rather than through a reduction in stressors experienced.

Differences between the two studies in terms of the work stressors associated with working in a well-defined team were also noted. Results from study one suggested that the experience of influence was greater in teams. Higher levels of feedback were also reported in teams, but this result became insignificant during more advanced statistical analysis. Study two did not replicate this finding with regards to influence. The data supported a relationship between working in a well-defined team, and feedback and role clarity. These slight inconsistencies across the two studies may again be explained by differences in levels of analysis, for example Sommers et al., (2002) note the different implications of the effects of stress when studied at the individual and group level. These findings are therefore equivocal as support for greater influence in teams is provided by Lantz and Laflamme (1996), and Carter (2000) provides support for higher levels of role clarity experienced in teams.

The descriptive results from both studies illustrated that Branch Managers were more likely to respond positively to the team questions than Counter Staff the Branch Manager

manages. This would suggest that the managers have a clear understanding of the characteristics of the team, however this understanding is not successfully communication downwards to their staff.

Previous research carried out on well-being in teams suggested that belonging to a team accounts for differences in well-being between those who work in well-defined teams and those who do not (Borrill et al., 2000). West and Sparrow (2002) propose that the innate drive and motivation of humans to form lasting significant relationships which is associated with feelings of belonging and acceptance explains the positive associations of working in a team. Despite the slight differences between the findings reported in the two studies it is possible to conclude that being in a team does not directly lead to better outcomes for team members, but rather it is the processes which occur within well functioning, well-defined teams which account for the positive outcomes associated with team membership.

The research reported in this thesis suggests that this is not the explanation. Rather, it is not team working per se which leads to the beneficial outcomes, rather that belonging to a well-defined team is associated with support behaviours within the team, with which team members are satisfied and it is this satisfaction with support from the manager which is associated with greater influence, both of which are associated with well-being outcomes and colleague support which is associated with job satisfaction. Such team behaviours are also associated with satisfaction with task appreciation and challenge and emotional support and challenge, which are associated with influence and the well-being outcomes. Working in a team did not reduce the experience of work stressors, but did increase perceptions of influence through satisfaction with support. The role of support from sources external to the team also emerged as important for job satisfaction for those employees working in well-defined teams, therefore suggesting that teams members should be encouraged to form relationships with people exterior to the team in addition to developing relationships within the team.

Limitations

The cross sectional nature of the studies limits the extent to which causality can be inferred among the constructs. This is a common limitation of many research

programmes. Causal direction has been hypothesised on the basis of the literature, including longitudinal studies, which conclude that social support is causally related to well-being (Cohen & Wills 1985; Thoits, 1982), and job satisfaction (Parkes, 1982). The causal direction is also based on an established theoretical model. The conclusions drawn from this study and the extent to which they are representative of non care giving roles within private sector organisations in general cannot be determined; reference to similar studies of similar variables in differing organisations provides a reference of the generalisability of the findings. For example, within manufacturing sector teams Parker and colleagues (Axtell & Parker, 1998; Parker & Sprigg, 1999) report an association between greater involvement in decision making and job satisfaction, organisational commitment and less strain. Again, however, due to cross sectional design the direction of causality cannot be confirmed. Communicating the aspects of working in a well-defined team is theorised as the starting point due to the operational nature of the characteristics. Once in place then the team functions and interpersonal relationships and supportive interactions are hypothesised to take place, these aspects then contribute to feelings of satisfaction within the team. It is possible that reverse causality exists. This issue was first proposed by Shaw (1975), derived from his work on perceptions of group and group performance. Shaw (ibid) reports that group characteristics were also affected by how well the group performed, not solely vice versa. Therefore in relation to this study; the conclusion that working in a team leads to better well-being through greater satisfaction with support sources and types is not the only possible explanation. It is possible that those employees who are more satisfied in their jobs report other aspects of their work favourably. This is an alternative explanation for those people working in teams reporting greater well-being, job satisfaction and commitment. However, this direction of causality is not supported as there is no difference between satisfaction with social support from team members between the team types.

The cross sectional nature of the study design also contributes to additional limitations. Although the self-report methodology may result in response bias, steps were taken to reduce the effect of self-report bias by using validated and reliable measures, correlations between outcome variables and process variables were examined which revealed a range of associations indicating differential relationships between work stressors, social support and well-being outcomes, suggesting limited bias attributable to common method variance. In addition, team members did not always report the work

environment more favourably than quasi team members, for example in study one there was no difference in the rating of satisfaction with team member support between the two groups, again indicating differential relationships between constructs.

While common method variance was identified as a limitation in study one, it was addressed by including an objective measure of performance in study two. Despite the inclusion of objective measures of performance, common method variance and direction of causality are still an issue due to the cross sectional nature of the study design and use of self report questionnaires.

It is possible that the upheaval and uncertainty faced within the organisation during the research period may have influenced the findings between stage one and two, accounting for the slightly different findings. However, a comparison of the mean scores of variables between the two studies reveals that there is no significant difference, suggesting that changes within the organisation did not impact on the extent of well-being and associated outcomes, satisfaction with support or perceived stress at work.

Data relating to performance was not of the quality expected. The data had to be reduced to remove those indexes which were not reliable, resulting in only two measures, therefore limiting the scope of investigation of team work, social support and performance.

The studies reported in this thesis were carried out in a single organisation on a single type of team. Therefore the extent to which generalisations can be made is undeterminable. Further studies on Post Office teams in other European counties would contribute to the extent to which generalisations could be made across Post Office Branch teams, but not across other organisations.

Implications: Theoretical and Methodological

This thesis has identified several gaps within the social support and team literature and the social support in team studies. By addressing these issues, conducting two rigorous studies specifically examining social support in teams several theoretical and methodological advances have been made in this field.

Social Support

The Michigan model has been used as the theoretical foundation in many empirical research studies (e.g. LaRocco et al., 1980; Marcelissen et al., 1988). The studies reported in this thesis were also based on the Michigan model, extending it to incorporate the context of the work environment, depicting how differences in team context impact on social support and subsequent relationships with work stressors and well-being outcomes. The results suggest that this is a useful way to conceptualise the role of social support within different contexts and to represent it theoretically.

Social support within a work context had not been examined previously in such detail using a quantitative methodology. Within the work environment, studies examining sources of support have not taken account of the differences in contextual relationships at work, examining manager and grouping together "other" work sources of support. The studies reported in this thesis suggest that there are important differences and resulting outcomes of support from support sources within the "other" category. It is therefore unrepresentative of the work environment to combine sources of support. Study one provides evidence that support sources differ in the support types they actually provide, both studies confirm that employees are capable of making a distinction between support from their manager, team members and colleagues. Greater clarity is therefore required when designing research examining sources of support as employees can and do distinguish between those they actually work with (in a team) and general acquaintances at work (colleagues). This has implications in terms of models of support and the relative contribution of different sources of support to the experience of well-being, and may explain inconsistencies reported in past research which does not differentiate sources of support at work.

At work, different support sources provide different types of support and these types of support have differing effects on job satisfaction, well-being and commitment. In agreement with Pines et al., (1981) it is important therefore for individuals to receive the range of support types. The research also enabled, due to its specific approach, certain sources and types of support and their relative effect on stressors and outcomes to be explored. Different sources and types of support were found to have different effects on

stressors and outcomes, therefore supporting Cutrona and Russell's (1990) optimal matching hypothesis.

The study of social support at work has often been confined to work environments stereotyped as emotionally challenging and traumatic, such as nursing, hospice care and police work. This research highlights that social support at work is beneficial in work environments not characterised by such events.

Team

Previous research had started to address the issue of team membership/single team identity/team perspective and impact on team outcomes. Adopting the team/quasi team distinction the studies reported in this thesis advance understanding of the characteristics that must be in place for employees to function in a team. The studies reported in this thesis reveal that it is not sufficient for the employee to feel as if they are part of a team; the functional characteristics proposed from academic research must also be present if the recognised benefits associated with team working are to be achieved. Through the study of the team/quasi team distinction it emerged that not all team members necessarily perceive the team characteristics in the same way. A continuum was developed to address this, allowing teams to be conceptualised as being positioned along a continuum from a well-defined team to a less well-defined team. Again the analysis suggests that the benefits associated with teamwork are more likely to occur in well-defined teams, i.e. those which fulfil the functional requirements of a team. The team continuum concept was pursued further by examining the impact not only of the extent to which the team viewed themselves as well-defined, but the extent of agreement about the functional characteristics of the team. Both ways of conceptualising teams revealed interesting outcomes which promote the value of further research on teamness and teamness agreement.

Methodological: Social Support Measurement

A short coming of many social support measures is that while respondents may indicate they receive very little of a certain type of support from, i.e. their manager, they may be very satisfied with this. And vice versa, if a respondent reports they receive a great deal of a specific support type they may actually be dissatisfied with this. The scale used in this study, measuring satisfaction with support overcomes the "more is best assumption"

often associated with support (McIntosh, 1991). An additional benefit of assessing satisfaction with support it that when social support is assessed in survey research as the amount of help an individual has received, positive correlations between support and distress might be expected, not because help has a negative effect, but simply because the individual under stress more often seeks help (Buunk et al.,1990). Positive correlations have been reported in studies using such measures (Barrera, 1986; Cohen & Wills, 1985). Such relationships were not found in this study as satisfaction with support was the focus. When assessing support from the manager, colleagues and team members, it is important to note that the respondent is asked to rate his/her relationship with their single manager, but with a number of colleagues and team members. Repetti (1987: 717) notes that this is a common limitation of social support research and "the non-equivalence of the two approaches may partially account for the different findings" i.e. supervisor support is more important. In order to overcome this limitation, social support would need to be assessed from colleagues and team members as individuals, resulting in multiple responses of support per respondent. This approach is not feasible for a study of this scale, but the support measurement used was designed to address some of the limitations of assessment in this field.

Team Assessment

Within the team and Branch Office setting the team boundaries are clearer than in many teams within organisations. An inherent challenge of studying teams is the identification of who actually works in the team and that this perception differs for each individual. Further in-depth work could involve those in the team listing their team members.

The second study considered teams at the group level, and did not replicate the results of the first study. It is possible therefore that the lack of consistency in team study findings may in part be due to the level in which the data is analysed. The research reported in this thesis therefore highlights the potential misinterpretations associated with making comparisons between studies conducted at different levels of analysis and the extent to which generalisations can be made.

The two studies reported used teams and team members within the same organisation, maintaining consistency in respondent type and work unit task. Therefore contributing to the generalisability of replicated findings within the Post Office context.

Implications: Contextual

Labelling a group of employees as a team is not sufficient in bringing about the positive health associated outcomes of teamwork. The team requires several functional characteristics to be present and internalised by the team members, such as appreciation of roles within the team and the need for interdependence. To ensure on-going understanding of the functional characteristic of the team requires continuous communication and reinforcement from management. It is only then; when the team have a shared understanding of their status and shared expectations of the functional characteristics of the group that the positive processes of better team functioning and social support emerge. These processes then facilitate the positive outcomes associated with working in a team. There are benefits to team members associated with the extent to which they are a well defined team, and also whether they agree within the team as to the functional characteristics.

The studies reported in this thesis also emphasise the key role played by the manager in terms of providing support and ensuring that the team members are satisfied with the support they receive. Satisfaction with manager support is greatest when team members work in a well-defined team.

The results from the second study reported in this thesis also suggest that the manager needs to strive for agreement within the team about team structure and that this development of a shared understanding will have a positive effect on team member well-being. The literature reviewed in chapter 4, suggests positive relationships between well-being and absenteeism, (Boyd, 1997), job satisfaction (Danna & Griffin, 1999) and performance (Wright & Bonett, 1997). It is therefore within the organisation's interest to ensure high levels of well-being amongst employees.

Manager training within Branch Offices should focus on methods of clear communication to ensure all staff feel part of a team, that they are aware of the team objectives, their role within the team, the need to work with each other for success and that the team is recognised by upper management. In addition, training on support provision would also improve the work environment and the self-esteem of team members. Although performance benefits were not reported on this occasion, a satisfied

workforce with high levels of well-being are likely to impact on other key organisational output measurables.

Working in a team and the experience of social support within teams was not found to be a particularly effective mechanism through which work stressors were reduced. This contradicts Rau (1994) who proposed stress compensation effects of teamwork. The social support literature also supports stronger effects of support on outcomes such as well-being, than through the stress reduction path (Viswesvaran et al., 1999). Therefore, this research suggests that creating teams is not a beneficial intervention by which to reduce stress in the workplace. Interventions should focus on reducing the stressors directly e.g. increasing role clarity (Bliese & Halverson, 1996).

Directions for Further Research

In order to substantiate these findings and to test their robustness, replication is needed within the same team context at different levels of analysis, to ascertain if findings are due to differences in the levels of analysis used or actual differences in employee perception. The current team data did not meet the requirements of HLM analysis, future data collection focusing on satisfying these criteria would enable further, in-depth exploration of the variables, potentially providing additional insight and developing understanding of the role of types and social support from different sources on the relationship between working in a well-defined team and teamwork outcomes. Replication and exploration at different levels of analysis would also enable clarification on the equivocal findings relating to the relative importance of support from colleagues and team members, which deserves further examination.

The differing results when focusing on teamness and agreement of teamness support the quality and strength climate literature, in that they are clearly different constructs. The further study of such constructs warrants additional study to advance understanding in this relatively new area of enquiry.

Conducting longitudinal research of social support in teams would be beneficial. The directions of causality presented in the studies reported in this thesis are derived from theory and past longitudinal research examining similar variables. A longitudinal

research design would strengthen the proposed direction of causality between working in a well-defined team, social support and teamwork outcomes. In addition, such a study design would enable changes in the extent to which team working, team functioning and the resulting effects of social support could be explored over time. Such an approach would contribute to an understanding of the mechanisms involved in working in a well-defined team contributing to higher levels of satisfaction with social support.

Continuing consideration of complimentary methodological approaches, qualitative data would enable detailed exploration of the interpersonal interactions taking place with the manager, within the team, and amongst colleagues. Thus providing a richer picture of social support from the individual perspective and facilitating understanding of this complex concept. Techniques such as in-depth interviews, diaries, focus groups and team observations would all provide rich qualitative data.

The studies reported in this thesis focus on social support within the workplace, and do therefore not take account of the effect of social support from sources external to the workplace, such as friends and family. Sources of support and experiences outside the work environment are suggested to contribute to organisational stress, support and well-being (Greenhaus & Parasuraman, 1986). Collection of social support from diverse networks encompassing all aspects of an individuals life would develop understanding of the interrelationships between work stress, home stress and the types and sources of support provided at work and at home.

Further research utilising different measures of performance would clarify the relationship between teamwork, social support and aspects of performance. Data such as sales figures or manager ratings of performance, while adding an objective level to the data would also inform on which aspects of performance are related to working in a team and therefore affected by differences in team work.

Enquiry could also be broadened to consider the specific support behaviours that occur within well-defined teams that differentiate them from less well-defined teams. Studying actual support behaviours would enable recommendations to be made to managers as to which behaviours they should encourage within their team and how to lead by example, in the knowledge of the outcomes associated with certain behaviours.

At present the understanding of social support within teams is limited in context to Post Office teams who work along side each other and belong to one team. Further exploration of teams within different contexts, such as teams which are separated by distance and time (virtual teams) and teams which are composed of members who also belong to other teams would widen this enquiry and allow for the context specific nature of social support to be explored and the extent to which generalisations can be made clarified.

Conclusion

This thesis has provided strong empirical support for the relationship between working in a well-defined team and well-being outcomes, and the role of social support in this relationship. The support role of the manager is key in contributing to the beneficial outcomes of teamwork. The relative importance of support from team members and colleagues is more complicated and the results equivocal, however social support from these sources does contribute to well-being outcomes associated with teamwork. The studies also illustrate the importance of designing and structuring teams so that they fulfil the functional requirements of a team. As when these requirements are not met the positive interactions which take place within well-defined teams are less likely to occur and the associated benefits of working in a team less likely to emerge. In addition it is necessary to strive towards agreement within the team regarding the team characteristics, i.e. developing a shared understanding, as this may help to reduce conflict within the work environment and is associated with higher levels of well-being than when agreement does not exist. Working in team is not substantially related to a reduction in work stressors experienced. For interventions aiming to reduce stress within the work place the creation of teams is not the solution. The research findings suggest that stressors should be managed directly for effective reduction in stress. As social support was once thought of as the panacea for well-being, this research points out the danger in assuming the same for team working.

References

Abdalla, I. A. (1991). Social support and gender responses to job stress in an Arab culture. *Journal of Social Behaviour and Personality*, 6, 273-288

Abramis, D. J. (1994). Work role ambiguity, job satisfaction and job performance: meta-analysis and review. *Psychological Reports*, 75, 1411-1433

Agius, R. M., Blenkin, H, Deary, I. J., Zeally, H. E., & Wood, R. A. (1996). Survey of perceived stress and work demands of consultant doctors. *Occupational and Environmental Medicine*, 53, 217-224

Agrell, A., & Gustafson, R. (1994). The team climate inventory and group innovation: A psychometric test on a Swedish sample of work groups. *Journal of Occupational and Organizational Psychology*, 67, 143-151

Aldag, R. J., & Brief, A. P. (1977). Relationships between leader behaviour variability indices and subordinate responses. *Personnel Psychology*, 30, 419-426

Alderfer, C. P. (1977). Group and intergoup relations. In J. R. Hackman & J. L. Suttle (Eds.). *Improving the Quality of Work Life* (pp. 227-296). Pallisades, CA: Goodyear

Anacona, D. G. & Caldwell, D. F. (1992). Bridging the boundary: external activity and performance in organisational teams. *Administrative Science Quarterly*, 37, 634-665

Anderson, C. R. (1976). Coping behaviours as intervening mechanisms in the inverted-U stress-performance relationship. *Journal of Applied Psychology*, 61, 30-34

Anderson, N. R. & West, M. A. (1994). *The Team Climate Inventory*. Winsdor, UK: ASE

Anderson, N, R. & West, M. A. (1998). Measuring climate for work group innovation: development and validation of the team climate inventory. *Journal of Organisational Behaviour*, 19, 235-258

Anntonucci, T. C., & Israel, B. A. (1986). Veridicality of social support: A comparison of principle and network members Reponses. *Journal of Clinical Psychology*, 54, 432-437

Applebaum, E., & Batt, R. (1994). *The New American Workplace*. Ithaca, NY: ILR Press

Argyle, M. (1987). *The Psychology of Happiness*. London: Methuen

Axtell, C., & Parker, S. K. (1998). Employee involvement: To CIT or not to CIT. Paper presented at the International Psychology Conference, Institute of Work Psychology, University of Sheffield, England

BBC news website: article date: 25.6.01, http://news.bbc.co.uk/hi/english/business/newsid_14060000/1406449.stm

Babakus, E, Craven, S. W., Johnston, M., & Moncrief, W. C. (1996). Examining the role of organisational variables in the sales person job satisfaction model. *Journal of Personal Selling & Sales Management*, 16, 33-46

Baird, L. L. (1969). A study of the role relations of graduate students. *Journal of Educational Psychology*, 60, 15-21

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122-147

Barbee, A. P. (1990). Interactive coping: The cheering up process in close relationships. In S. Duck, & R. Silver (Eds.), *Personal Relationships and Social Support* (pp. 46-65). London: Sage

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182

Barrera, M. (1981). Social support in the adjustment of pregnant adolescents. In B. H. Gottlieb (Ed.), *Social Networks and Social Support* (pp. 69-96). Beverly-Hills, CA: Sage

Barrera, M. (1986). Distinctions between social support concepts, measures and models. *American Journal of Community Psychology*, 14, 413-445

Bararra, M., Sandler, I. N., & Ramsey, T. B. (1981). Preliminary development of a scale of social support: Studies on college students. *American Journal of Community Psychology*, 9, 435-447

Barrick, M. R., Stewart, G. L., & Mount, M. K. (1998). Relating member ability and personality to work team processes and team effectiveness. *Journal of Applied Psychology*, 83, 377-391

Bateman, T. S., & Strasser, S. (1984). A longitudinal analysis of the antecedents of organisational commitment. *Academy of Management Journal*, 27, 95-112

Baugh, S. G., & Roberts, R. M. (1994). Professional and organisational commitment among engineers: conflicting or complementary? *IEEE Transitions on Engineering Management*, 41, 108-114

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529

Bedeian, A. G. & Armenakis, A. A. (1981). A path-analytical study of consequences of role and conflict ambiguity. *Academy of Management Journal*, 24, 417-424

Beehr, T. A. (1985) The role of social support in coping with organisational stress. In T. A. Beehr & R. S. Bhagat (1985) *Human Stress and Cognition in Organisations: An Integrated Perspective* (pp. 375-398). Chichester. John Wiley & Sons

Beehr, T. A. (1995). *Psychological stress in the workplace.* New York: Routledge

Beehr, T. A., King, L. A., & King, D. W. (1990). Social support and occupational stress: talking to supervisors. *Journal of Vocational Behaviour*, 36, 61-81

Beehr, T. A., Jex, S. M., Stacy, B. A., & Murray, M. A. (2000). Work stressors and coworker support as predictors of individual strain and job performance. *Journal of Organisational Behaviour,* 21, 391-405

Bell, R. A., LeRoy, J. B., & Stephenson, J. J. (1982). Evaluating the mediating effects of social support upon life events and depressive symptoms. *Journal of Community Psychology*, 10, 325-340

Bennett, J. B., & Lehman, W. E. K. (1999). Employee exposure to co-worker substance use and negative consequences: the moderating effects of work group membership. *Journal of Health and Social Behaviour*, 40, 307-322

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin,* 107, 238-246

Bentler, P. M., & Bonnett, D. G. (1980). Significance tests and goodness-of-fit in the analysis of covariance structures. *Psychological Bulletin*, 88, 588-606

Berkman, L. F. (2000). Social support, social network, social cohesion and health. *Social Work in Health Care,* 31, 3-14

Billings, A. G., & Moos, R. H. (1982). Work stress and the stress buffering roles of work and family resources. *Journal of Occupational Behaviour*, 3, 215-232

Billings, R. S., & Wroten, S. P. (1978). Use of path analysis in industrial/organisational psychology: criticisms and suggestions. *Journal of Applied Psychology*, 63, 677-688

Birnbaum, D., & Somers, M. J. (1993). Fitting job performance into turnover model: an examination of the form of the job performance-turnover relationship and path model. *Journal of Management*, 49, 1-11

Bishop, J. W. & Dow Scott, K, D. (2000). An examination of organisational and team commitment in a self-directed team environment. *Journal of Applied Psychology*, 85, 439-450

Bliese, P. D., & Britt, T. W. (2001). Social support, group consensus and stressor-strain relationships; social context matters. *Journal of Organisational Behaviour*, 22, 425-436

Bliese, P. D., & Castro, C. A. (2000). Role clarity, work overload and organisational support: multilevel evidence of the importance of support. *Work and Stress*, 14, 65-73

Bliese, P. D., & Halverson, R. R. (1996). Individual and nomothetic models of job stress: An examination of work hours, cohesion and well-being. *Journal of Applied Social Psychology*, 26, 1171-1189

Bliese, P. D., & Halverson, R. R. (1998). Consensus and psychological well-being. A large field study. *Journal of Applied Social Psychology,* 28, 563-580

Bliese, P. D., & Jex, S. M. (1999). Incorporating multiple levels of analysis into occupational stress research. *Work and Stress,* 13, 1-6

Blythe, P. (1975). *Stress.* London: Pan Books

Borrill, C. S., Wall, T. D., West, M. A., Hardy, G. E., Shapiro, D. A., Carter, A. W., Golya, D. A., & Haynes, C. E. (1996). *Mental Health of the Workforce in NHS Trusts.* Institute of Work Psychology, University of Sheffield, England

Borrill, C. S., & West, M. A. (1997). Effectiveness in primary health care. *CAIPE Bulletin,* 14

Borrill, C. S., & West, M. A. (1998). *Strain in Primary Health Care.* Unpublished report. Institute of work psychology, University of Sheffield, England

Borrill, C. S., Wall, T. D., West, M. A., Hardy, G. E., Shapiro, D. A., Haynes, C. E., Stride, C. B., Woods, D., & Carter, A. W. (1998). S*tress among staff in NHS trusts.* Institute of work psychology, University of Sheffield, England & Psychological Therapies Research Centre, University of Leeds, England

Borrill, C. S., Carletta, J., Carter, A. J., Dawson, S. G., Garrod, S., Rees, A., Richards, A., Shapiro, D., & West, M. A. (2000). *The effectiveness of health care teams in the NHS.* Final report to the department of health

Borrill, C. S., West, M. A., Scully, J., & Dawson, J. (2003). Working together: Employee involvement and organisational performance in the British National Health Service. Paper presentation at EAWOP, May 2003, Lisbon, Portugal

Boumans, N. P. G., & Landeweerd, J. A. (1992). The role of social support and coping behaviours in nursing work: main or buffering effect? *Work & Stress,* 6, 191-202

Bowlby, J. (1969). *Attachment and loss: Vol 1. Attachment.* New York: Basic Books

Bowlby, J. (1973). *Attachment and loss: Vol 2. Separation anxiety and anger.* New York: Basic Books

Boyd, A. (1997). Employee traps – corruption in the workplace. *Management Review,* 86, 9-22

Brisette, I., Cohen , S., & Seeman, T. E. (2000). Measuring social integration and social networks. In S Cohen, Underwood, L. G. & Gottlieb, B. H. (2000). *Social Support Measurement and Intervention, A guide for health and social scientists* (pp. 53-85). New York: Oxford University Press

Broadhead, W. E., Kaplan, B. H., James, S. A., Wagner, E. H., Schoenback, V. J. (1983). The epidemiologic evidence for a relationship between social support and health. *American Journal of Epidemiology,* 117, 521-537

Brodbeck, F. C. (1996). Criteria for the study of work group functioning. In M. A. West (Ed.). *Handbook of Work Psychology* (pp. 285-315). Chichester: Wiley

Brown, K. G. & Kozlowski, S. W. J. (1999). Dispersion theory: moving beyond a dichotomous conceptualisation of emergent organisational phenomena. Presented in F. P. Morgeson & D. A. Hofmann (Eds) and K. Klein (discussant) Symposium "New Perspectives on Higher Level Phenomena in I/O Psychology presented at the 14 Annual Meeting of the Society of Industrial and Organisational Psychology, Atlanta GA

Brown, S. P., & Leigh, T. W. (1996) A new look at psychological climate and its relationship top job involvement, effort and performance. *Journal of Applied Psychology* 81, 358-368

Brownell, A., & Schumaker, S. A. (1984). Social support: an introduction to a complex phenomenon. *Journal of Social Issues*, 40, 1-10

Browner, C. H. (1987). Job stress and health: the role of social support at work. *Research in Nursing and Health,* 10, 93-100

Bryman, A., & Cramer, D. (2001). *Quantitative Data Analysis with SPSS Release 10 for Windows: A Guide for Social Scientists.* Hove: Routledge

Bryk, A. & Raundenbush, S. (1992). *Hierarchical Linear Models: Applications and Data Analysis Methods. Advanced Quantitative Techniques in the Social Sciences Series.* Newbury, CA: Sage Publications

Buck, V. (1972). *Working Under Pressure.* London: Staples Press

Burke, R. J. (1993). Organisational-level interventions to reduce occupational stressors. *Work Stress*, 7, 77-78

Burke, R.J., & Greenglass, E. (1996). Work stress, social support and psychological burnout and emotional and physical well-being among teachers. *Psychology, Health and Medicine,* 1, 193-205

Burleson, B. R., Albrecht, T. L., & Sarason, I. G. (1994). *Communication of social support: messages, interactions, relationships and community.* London: Sage

Burningham, C., & West, M. A. (1995). Individual climate and group interaction processes as predictors of work team innovation. *Small Group Research*, 26, 106-117

Buunk, B. P., Janssen, P. P. M., & Van Yperen, N. W. (1989). Stress and affiliation reconsidered: the effects of social support in stressful and non-stressful work units. *Social Behaviour*, 4, 155-171

Buunk, B. P. (1990). Affiliation and helping interactions within organisations: A critical analysis of the role of social support with regard to occupational stress. *European review of social psychology*, 1, 293-322

Buunk, B. P., & Hoorens, V. (1992). Social support and stress: The role of social comparison and social exchange processes. *British Journal of Clinical Psychology*, 31, 445-457

Buunk, B. P., & Schaufeli, W. B. (1993). Professional burnout: A perspective from social comparison theory. In W. B. Schaufeli, C. Maslach, & T, Marek (Eds.), *Professional Burnout: Recent Developments in Theory and Research* (pp. 53-69). Washington: Taylor and Francis

Buunk, B. P., de Jonge, J., Ybeme, J. F., & de Wolff, C. J. (1998). Psychosocial aspects of occupational stress. In P. D. J. Drenth, H. Thierry & Ch. J. de Wolff (Eds.), *Handbook of Work and Organisational Psychology*, (Vol 2. pp. 145-182). Hove: Psychological Press

Campion, M.A, Medsker, G.J. Higgs, A.C (1993) Relations between work team characteristics and effectiveness: implications for designing effective work groups. *Personnel Psychology*, 46, 823-850

Campion, M.A. Papper, E.M Medsker G, J (1996) Relations between work team characteristics and effectiveness: a replication and extension. *Personnel Psychology*, 49, 429-

Caplan, R. D. (1971). *Organisational stress and worker strain: A social-psychological study of risk factors on coronary heart disease amongst administrators, engineers and scientists.* (University Microfilms No. 72-14822). Ann Arbor, MI: University of Michigan, Institute for Social Research

Caplan, R. D., Cobb, S., French, J. R. P., Harrison, H. V., & Pinneau, S. R. (1975*). Job demands and worker health. US Dept of health, education and welfare publication.* US Government Printing Office Washington, DC the institute for social research no 75-160

Caplan, R. D., & Jones, K. W. (1975). Effects of workload, role ambiguity and type A personality on anxiety, depression and heart rate. *Journal of Applied Psychology*, 60, 713-719

Caplan, R. D., Cobb, S., French, J. R. P., Harrison, H. V., & Pinneau, S. R. (1980). *Job demands and worker health.* Ann Arbor, MI: Institute for Social Research

Cappelli & Sherer (1991). The missing role of context in OB: The need for a meso-level approach. In B. M. Straw & L. L. Cummings (Eds.), *Research in Organisational Behaviour* (Vol, 13, pp. 55-110). Greenwich, CT: JAI Press

Carter, A, J. (2000) Sharing the burden: team working in secondary health care. Unpublished doctoral dissertation, Institute of Work Psychology, University of Sheffield, England

Carter, A.J. & West, M.A. (1999) sharing the burden – team work in the health care settings. In R. Payne & J. Firth-Cozens (Eds). *Stress in Health professionals: psychological and organisational causes and interventions* (pp.191-292). Chichester: Wiley

Cartwright, S., & Cooper, C. L. (1997). *Managing Work Place Stress.* London: Sage

Cartwright, D, & Zander, A. (1968). *Group dynamics: research and theory* (3rd Edition). New York. Harper & Row

Carayon, P., Yang, C., & Lim, S. (1995). Examining the relationship between job design and worker strain over time in a sample of office workers. *Ergonomics, 38,* 1199-1211

Carlson, D. S., & Perrewe, P. L. (1999). The role of social support in the stressor-strain relationships: an exanimation of work-family conflict. *Journal of Management, 25,* 513-540

Cassell, J. (1976). The contribution of the social environment to host resistance. *American Journal of Epidemiology,* 104, 107-123

Chan, D. (1998). Functional Relations Among Constructs in the Same Content Domain at Different Levels of Analysis: A typology of Composition Models. *Journal of Applied Psychology,* 83, 234-246

Cieslak, R, Widerszal-Basyl, M & Luszczynska-Cieslak, A. (2000) the moderating role of hardiness and social support in the relation between job stressors and well-being: a lesson from a clerical women sample. *International Journal of Occupational Safety and Ergonimics* 6, 257-292.

Cobb, S. (1976) Social support as a moderator of life stress. *Psychosomatic Medicine,* 38, 300-314

Cobb, S. (1979). Social support and health through the life course. In R. W. Riley (Ed.), Aging from Birth to Death. *Interdisciplinary Perspectives* (pp. 93-106). Washington, DC: American Association for the Advancement of Science

Cohen, A. R. (1959). Situational structure, self-esteem, and threat orientated reactions to power. In D. Cartwright (Ed.) *Studies in social power* (pp. 35-52). Ann Arbor, Michigan: Research Centre for Group Dynamics

Cohen, S. G. (1991). New approaches to teams and teamwork. In J. R. Galbraith, E. E. Lawler & Associates (Eds.), *Organising for the future: The new logic for managing complex organisations* (pp. 194-226). San Francisco: Jossey-Bass

Cohen, S. (1995). Cohen, S. G. (1994). Designing effective self-managing work teams. In M. Beyerlein (Ed.), *Advances in Interdisciplinary Studies of Work Teams: Theories of Self-managing Work Teams* (Vol. 1, pp. 67-102). Greenwich, CT: JAI Press

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioural sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum

Cohen, S. & Bailey, D.E. (1997) what makes teams work: group effectiveness research from the shop floor to the executive suite. *Journal of Management,* 23, 239-290

Cohen, S., & Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology*, 13, 99-125

Cohen, S. & McKay, G. (1984). Social support, stress and the buffering hypothesis: A theoretical analysis. In A. Baum, J. E. Singer, & S. E. Taylor (Eds.), *Handbook of psychology and health* (pp. 253-267). Hillsdale, NJ: Erlbaum

Cohen, S., Underwood, L. G. & Gottlieb, B. H. (2000). *Social Support Measurement and Intervention, A guide for health and social scientists*. New York: Oxford University Press

Cohen, S., & Wills, T. A. (1985) Stress, social support and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357

Conn, M. K., & Peterson, C. (1989). Social support: Seek and ye shall find. *Journal of Social and Personal Relationships*, 6, 345-358

Constable, J. F., & Russell, D. W. (1986). The effect of social support and the work environment upon burnout among nurses. *Journal of Human Stress*. Spring 1986

Conway, J. M. (1999). Distinguishing contextual performance from task performance of managerial jobs. *Journal of Applied Psychology*, 84, 3-13

Conway, J. M. (2002). Method variance and method bias in industrial and organisational psychology. In S. G. Rogelberg (Ed.), *Handbook of Research Methods in Industrial and Organisational Psychology* (pp. 344-365). Oxford: Blackwell

Cook, J., & Wall, T. D. (1980). New work attitude measure of trust, organisational commitment and personal need non-fulfilment. *Journal of Occupational Psychology*, 65, 155-334

Cooper, C. L., & Marshall, J. (1988). Sources of managerial stress and white collar stress. In C. L. Cooper & R. Payne (Eds.), *Stress at Work* (pp. 81-106). Chichester: Wiley and Sons

Cordery, J. L., & Wall, T. D. (1985). Work design and supervisory practice: A model. *Human Relations*, 38, 425-441

Cox, T. (1997). Work place health promotion. *Work Stress*, 11, 1-5

Cutrona, C. E., & Russell, D. W. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones & D. Perlman (Eds.), *Advances in Personal Relationships* (pp. 37-67). Greenwich, CT: JAI Press

Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In B. R. Sarason, I. G. Sarason & G. R. Pierce (Eds.), *Social Support an Interactional View* (pp. 319-366). New York: Wiley

Cummins, R. (1989). Locus of control and social support: Clarifiers of the relationship between job stressors and job satisfaction. *Journal of Applied Social Psychology*, 19, 772-788

Danna, K. & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management*, 25, 357-384

Daniels, K., & Guppy, A. (1994). Occupational stress, social support, job control and psychological well-being. *Human Relations* 47, 1523-1544.

Darley, J. M., & Latene, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8, 377-383

Dawson, J. (2002). Personal Communication

David, F. R., Pearce, J. A., & Randolph, W. A. (1989). Linking technology and structure to enhance group performance. *Journal of Applied Psychology*, 74, 233-241

Dekker, S. W. A., & Schaufeli, W. B. (1995). The effects of job insecurity on psychological health and withdrawal: A longitudinal study. Australian Psychologist, 30, 57-63

De Jonge, J., & Kompier, M. S. J. (1997). A critical examination of the demand-control-support model from a psychological perspective. *International Journal of Stress Management*, 4, 235-258

De Jonge, J., & Schaufeli, W.B. (1998). Job Characteristics and employee well-being: a test of Warr's vitamin model in health care workers using structural equation modelling. *Journal of Organisational Behaviour*, 19, 387-407.

De Jonge, J., van Breukelen, G. J. P., Landerweerd, J. A., & Hijhuis, F. J. N. (1999). Comparing group and individual assessments of job characteristics in testing the job demand-control model: A multilevel approach. *Human Relations*, 52, 95-122

DeLongis, A., Folkman, S., & Lazarus, R. S. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. *Journal of Personality and Social Psychology*, 54, 486-495

Deluga, R. J., & Perry, J. T. (1991). The relationship of subordinate upward influencing behaviour, satisfaction and perceived superior effectiveness with leader-member exchanges. *Journal of Occupational Psychology*, 64, 239-252

Depner, C. E., Wethington, E., & Ingersoll-Dayton, B. (1984). Social support: Methodological issues in design and measurement. *Journal of Social Issues*, 41, 37-54

Diehl, M., & Stroebe, W. (1987). Productivity loss in brainstorming groups: Toward the solution of a riddle. *Journal of Personality and Social Psychology*, 53, 497-509

Diener, E.,Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276-302

Drake, B., & Mitchell, T. (1977). The effects of vertical and horizontal power on individual motivation and satisfaction. *Academy of Management Journal*, 20, 573-591

Driskell, J. E., Salas, E. & Johnson, J. (1999). Does Stress Lead to a Loss of Team Perspective? *Group Dynamics: Theory, Research and Practice* 3, 291-302

Drory, M. & Shamir, B. (1988). Effects of organisational and life variables on job satisfaction and burnout. *Group and Organisational Studies*, 13, 441-455

Ducharme, L. J., & Martin, J. K. (2000). Unrewarding work, co-worker support and job satisfaction: a test of the buffering hypothesis. *Work and Occupations* 27, 223-243

Dunkel-Schetter, C & Bennett, T. L. (1990). The availability of social support and its activation in times of stress. In I. G. Sarason, B. R. Sarason, & G. R. Pierce (Eds.), *Social Support: An Interactional Review* (pp. 267-296). New York: Wiley

Dunkell-Schetter, C., & Wortman, C. (1981). Dilemmas of social support: parallels between victimisation and aging. In S. B. Kiesler, J. N. Morgan, & V. K. Oppenheimer (Eds.), *Aging and Social Change* (pp. 136-151). Thousand Oaks, CA: Sage

Dunkel-Schetter, C, Folkson, S & Lazarus, R.S. (1987). Correlates of social support receipt. *Journal of Personality and Social Psychology*, 52, 71-80

Eaton, W. W. (1978). Life events, social supports, and psychiatric symptoms: Pre-analyses of new haven data. *Journal of Health and Social Behaviour*, 19, 230-234

Edwards, J. R. (1992). A cybernetic theory of stress, coping and well-being in organisations. *Academy of Management Review*, 17, 238

Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, Pd., & Rhoades, L. (2001). Reciprocation of perceived organisational support. *Journal of Applied Psychology*, 86, 42-51

Eisenberger, R., Huntington, R., Hutchinson, S., & Sowa, D. (1986). Perceived organisational support. *Journal of Applied Psychology*, 71, 500-507

Etchegaray, J. M., Toney, L. P., Schmidt, L. L., Sellas, E. J., & Tetrick, L. E. (2002). Discriminant validity of foci of exchange: Organisation, team and leader. Paper presented at the 17th Annual Conference of the Society of Industrial and Organisational Psychology. Toronto, Canada

Etzion, D. (1984) Moderating effect of social support on the stress-burnout relationship. *Journal of Applied Psychology*, 69, 615-622

Farris, G. F., & Lim, F. G. Jr. (1969). Effects of performance on leadership cohesiveness, influence, satisfaction and subsequent performance. *Journal of Applied Psychology*, 53, 490-497

Felton, B. J., & Shinn, M. (1992) Social integration and social support moving social support beyond the individual level. *Journal of Community Psychology* 20, 103-115.

Fenlassen, K. J., & Beehr, T. A. (1994) Social support and occupational stress: effects of talking to others. *Journal of Organisational Behaviour,* 15, 157-175

Ferrie, J. E., Shipley, M. J., Marmot, M. G., Stanfeld, S., & Smith, G. D. (1998). The health effects of major organisational change and job insecurity. *Social Science and Medicine,* 46, 243-254

Festinger, L. (1950). Informal social communication. *Psychological Review,* 57, 271-282

Firth, H., McIntee, J., McKeown. P., & Britton, P. (1986). Interpersonal Support amongst nurses at work. *Journal of Advanced Nursing,* 11, 273-282

Fisher, J. D., Nadler, A., & Witcher-Alagna, S. (1982). Recipients reactions to aid. *Psychological Bulletin,* 91, 27-54

Fisher, C. D., & Gitelson, R. (1983). A meta-analysis of the correlates of role conflict and role ambiguity. *Journal of Applied Psychology,* 68, 320-333

Fisher, G. (2002). Personal Communication

Forsyth, D. R. (1996). The functions of groups. Paper presented at the Annual Meetings of the American Psychological Association. Toronto, Canada.

Fox, M. L., Dwyer, D. J., & Ganster, D. C. (1993). Effects of stressful job demands and control on physiological and attitudinal outcomes in a hospital setting. *Academy of Management Journal,* 36, 289-318

French, J. R. P., Israel, J & As, D, (1960). An experiment in participation in a Norwegian factory, *Human Relations,* 13, 3-20

French, J. R. P., & Caplan, R. D. (1972). Organisational stress and individual strain. In A. J. Morrow (Ed.), The Failure of Success. New York: AMACOM.

French, J. R. P., & Caplan, R. D. (1970). Psychosocial factors in coronary heart disease. *Industrial Medicine,* 39, 383-397

French, J. R. P., Caplan, R. D., & Harrison, V. R. (1982). *The mechanisms of job stress and strain.* New York: Wiley

French, J. R. P., & Kahn, R. L. (1962). A programmatic approach to studying the industrial environment and mental health. *Journal of Social Issues,* 18, 1-47

Fry, L. W., & Slocum, J. W. (1984). Technology, structure and work group effectiveness: A test of a contingency model. *Academy of Management Journal,* 27, 221-246

Gains, J., & Jermier, J. M. (1983). Emotional exhaustion in high stress organisation. *Academy of Management Journal*, 26, 567-586

Ganster, D. C. (1989). Worker control and well-being: A review of research in the work place. In S. L. Suater, J. J. Hurrell, C. L. Cooper (Eds.), *Job Control and Worker Health*, Chapter 1, John Wiley & Sons: New York

Ganster, D. C., Fusilier, M. R., & Mayes, B. T. (1986). Role of social support in the experience of stress at work. *Journal of Applied Psychology*, 71, 102-110

Ganster, D. C., & Murphy, L. (2000). Workplace interventions to prevent stress-related illness: Lessons from research and practice. In C. L. Cooper & E. A. Locke (Eds.), *Industrial and Organisational Psychology: Linking Theory with Practice* (pp. 34-51). Malden, MA: Blackwell

Garland, D. J., & Barry, J. R. (1990). Personality and leader behaviours in collegiate football: A multidimensional approach to performance. *Journal of Research in Personality*, 24, 355-370

Gelade, G. A., & Ivery, M. (2002) The climate carousel: operations management, climate and organizational performance. in press

George, J. M. (1990). Personality, affect, and behaviour in groups. *Journal of Applied Psychology*, 75, 107-116

George, J. M., & Bettenhausen, K. (1990). Understanding prosocial behaviour, sales performance and turnover: A group-level analysis in a service context. *Journal of Applied Psychology*, 75, 698-709

George, J. M., & Brief, A. P. (1992). Feeling good- doing good: A conceptual analysis of the mood at work-organisational spontaneity relationship. *Psychological Bulletin*, 112, 310-329

George, J. M., & Jones, G. R. (1997). Organisational Spontaneity in context. *Human Performance*, 10, 153-170

Gersick, G. J. G., & Hackman, J. R. (1990). Habitual routines in task-performing groups. *Organisational Behaviour and Human Decision Processes*, 47, 65-97

Gladstein, D.L. (1984) groups in context: a model of task group effectiveness. *Administrative Science Quarterly*, 29, 499-517

Gonzalez-Roma, V, Peiro, J. M. & Tordera, N (2002). An examination of the antecedents and moderator influences of climate strength. *Journal of Applied Psychology*, 87, 465-473

Gotteib, B. H. (1978). The development and application of a classification scheme of informal helping behaviours. *Canadian Journal of Science*, 10, 105-115

Goodman, P. S. (1986). Impact of task and technology on group performance. In P. S. Goodman & Associates (Eds.). *Designing Effective Work Groups*. (pp. 120-167). San Francisco: Jossey-Bass

Gottlieb, B. (1978). The development and application of a classification scheme of informal helping behaviours. *Canadian Journal Of Behavioural Science*, 10, 105-115

Gottlieb, B. (1983). *Social Support Strategies: Guidelines for Mental Health Practice*. Beverly Hill, CA: Sage

Greenberger, D. B., Strasser, S., Cummings, L. L., & Dunham, R. B. (1989). The impact of personal control on performance and satisfaction. *Organizational Behaviour and Human Decision Processes*, 43, 29-51

Greene, C. N. (1975). The reciprocal nature of influence between leader and subordinate. *Journal of Applied Psychology*, 60, 187-193

Greenglass, E. R. (1993). The contribution of social support to coping strategies. *Applied Psychology: An International Review*, 42, 323-340

Gregson, T., & Wendell, J. (1994). Role conflict, role ambiguity, job satisfaction and the moderating effect of job-related self-esteem: a latent variable analysis. *Journal of Applied Business Research*, 10, 106-113

Greller, M. M., Parsons, C. K., & Mitchell, D. R. D. (1992). Additive effects and beyond: Occupational stressors and social buffers in a police organisation. In J. C. Quick, L. R. Murphy, & J. J. Hurrell Jr (Eds.). *Stress and Well-being at Work: Assessments and Interventions for Occupational Mental Health*. Washington, DC: American Psychological Society

Griffin, M. A., Patterson, M. G., & West, M. A. (2001) Job satisfaction and teamwork: the role of supervisor support. *Journal of Organisational Behaviour*, 22, 537-550

Griffiths, A. (1994). Editorial: Musculoskeletal upper-limb disorders and white collar work in the UK. *Work and Stress*, 9, 1-3

Gully, S. M., Joshi, A., & Incalcaterra, K. A. (2001). A meta-analytic investigation of the relationships among team efficacy, self-efficacy and performance. Presented at the 16th Annual Conference of the Society for Industrial and Organisational Psychology, San Diego, CA

Guzzo, R. A., & Dickson, M. W. (1996). Teams in organisations: Recent research on performance and effectiveness. *Annual Review of Psychology*, 47, 307-338

Guzzo, R. A., & Salas, E. (1995). *Team Effectiveness and Decision Making in Organisations*. San Francisco: Jossey-Bass

Guzzo, R. A. & Shea, G. P. (1992). Group performance and intergroup relations in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and*

Organizational Psychology (2nd Ed., pp. 269-313). Palo Alto, CA: Consulting Psychologists Press

Hackman, J. R. (1987). The design of work teams. In J. Lorsch (Ed.), *Handbook of Organizational Behaviour* (pp. 315-342). New York: Prentice Hall

Hackman, J. R. (1990). *Groups that work (and those that don't): Creating conditions for effective team work.* San Francisco: Jossey-Bass

Hackman, J. R. (1992). Group influences on individuals in organisations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and Organisational Psychology* (pp. 199-267). Palo Alto, CA: Consulting Psychologists Press

Hackman, R. J. & Morris, C. G. (1975).Group tasks, group interaction process, and group performance: A review and proposed integration. In L. Berkowitz (Ed.), *Advances in Experimental Psychology* (pp. 45-99). New York: Academic Press

Hackman, R, J. & Oldham, G, R., (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60, 59-170

Hackman, R. J., & Oldham, G. R. (1980). *Work redesign.* Reading, MA: Addison-Wesley

Hair, Jr, J. F., Anderson, R.E., Tatham, R.L., & Black, W. C. (1998) *Multivariate data analysis* (5th Ed International). London: Prentice Hall

Hampton, R., Dubinsky, A J., & Skinner, S. J. (1986). A model of sales supervisor leadership behaviour and retail salespeople's job-related outcomes. *Academy of Marketing Science,* 14, 33-43

Harkins, S. G. (1987). Social loafing and social facilitation. *Journal of Experimental Social Psychology*, 23, 1-18

Hart, P. M. (1994). Teacher quality of work life: Integrating work experiences, psychological distress and morale. *Journal of Occupational and Organisational Psychology,* 67, 109-132

Hart, P. M., & Cooper, C. L. (2001). Occupational stress: Toward a more integrated framework. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *Handbook of Industrial, Work and Organisational Psychology*, (pp. 93-114). London: Sage

Hartenian, L. S., Hadaway, F. J., & Badovick, G. J. (1994). Antecedents of role perceptions: a path analytic approach. *Journal of Applied Business Research*, 10, 40-50

Hassen, R. O., Jones, W. H., & Carpenter, B. N. (1984). Relational competence and social support. In Ph. Shaver (Ed.), *Review of Personality and Social Psychology* (Vol 5). Beverly Hills, CA. Sage

Hartfield, E., & Sprecher, S. (1983). Equity theory and recipients' reactions to help. In J. D. Fisher, A Nadler & B. M. DePaulo (Eds.), *New Directions in Helping Behaviour*, (Vol 1, pp.113-141). New York: Academic Press

Haynes, C. E. (1999). Leadership and upward feedback in the British National Health Service. Unpublished doctoral dissertation, Institute of Work Psychology, University of Sheffield, England

Heaney, C. A., Israel, B. A., & House, J. S. (1994). Chronic job insecurity among automobile workers: Effects on job satisfaction and health. *Journal of Social Science and Medicine,* 38, 1431-1437

Helgeson, V. S. (1993). Two important distinctions in social support: Kind of support and perceived verses received. *Journal of Applied Social Psychology*, 23, 825-845

Hellman, C. M., Witt, L. A., & Hilton, T. F. (1993). Member-team exchange quality and commitment to a matrix team. Paper presented at the Society for Industrial and Organisational Psychology, San Francisco, CA

Hendrix, W. H., Ovalle, N. K., & Troxler, R. G. (1985). Behavioural and physiological consequences of stress and its antecedent factors. *Journal of Applied Psychology*, 70, 188-201

Henderson, S. (1980). A development in social psychiatry: The systematic study of social bonds. *Journal of Nervous and Mental Disease*, 168, 63-69.

Henderson, S., Byrne, D. G., & Duncan-Jones, P. (1981). *Neurosis and the social environment*. New York: Academic Press

Hill, G. A. (1996). Interpersonal and dispositional influences on problem-related interactions. *Journal of Research in Personality*, 30, 1-22

Hirsch, B. J (1979). Psychological dimensions of social networks: A multimethod analysis. *American Journal of Community Psychology*, 7, 263-276

Hirsch, B. J (1980). Natural Support systems and coping with major life changes. *American Journal of Community Psychology*, 8, 153-16.

Hodson, R., (1997). Group relations at work: Solidarity, conflict and relations with management. *Work and Occupations*, 24, 426-452

Hofmann, D. A., Griffin, M. A. & Gavin, M. B. (1999). The application of hierarchical linear modelling to organisational research. In K. J. Klein & S. W. J. Koslowski (Eds.). *Multilevel theory, research and methods in organisations. Society for Industrial and Organisational Psychology*. Frontier Book Series: Jossey-Bass Inc

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment scale. Journal of *Psychosomatic Research*, 11, 213-218

House, R. L., Filley, A. C., & Kerr, S. (1971). Relation of leader consideration initiating structure to R & D subordinates' satisfaction. *Administrative Science Quarterly*, 16, 19-30

House, J. S. (1981). *Work Stress and Social Support*. Reading, MA: Addison-Wesley

House, J. S., & Cottington, E. M. (1986). Health and the workplace. In L. Aiken, & D. Mechanic (Eds.), *Application of Social Science to Clinical Medicine and Health Policy*. New Brunswick, NJ: Rutgers University Press

House, R, J., & Rizzo, J. R. (1972). Role conflict and ambiguity as critical variables in a model of organisational behaviour. *Organisational behaviour and Human Performance*, 7, 467-505

House, J. S., & Kahn, R. L. (1985). Measures and concepts of social support. In S. Cohen & S. L. Syme (Eds.), *Social Support and Health* (pp.83-108). New York: Academic Press

House, J. S., & Wells, J. A. (1978). Occupational stress, social support, and health. In A. McLean, G. Black, & M. Colligan (Eds.), *Reducing Occupational Stress: Proceedings of a Conference* (pp. 78-140). Washington, DC: Department of Health, Education and Welfare Publication

House, R. J., & Mitchell, T. R. (1974). Path-goal theory of leadership. *Journal of Contemporary Business*, 3, 81-97

Hoyle, R. H., Georgeson, J. C. & Webster, J. M. (2001). Analysing data from individuals in groups: the past, the present and the future. *Group Dynamics*, 5, 41-47

Howell, J. P., & Costley, D. L. (2001). *Understanding Behaviours for Effective Leadership*. New Jersey: Prentice Hall

Hyatt, D. E., & Ruddy, T. M. (1997). An examination of the relationship between work group characteristics and performance: Once more into the breech. *Personnel Psychology*, 50, 553-585

Iaffaldoano, M. T., & Muchinsky, P. M. (1985). Job satisfaction and job performance: A meta-analysis. *Psychological Bulletin*, 97, 251-273

Igbaria, M. (1991). Job performance of MIS professionals: an examination of the antecedents and consequences. *Journal of Engineering and Technology Management*, 8, 141-171

Illgen, D. R., Major, D. A., Hollenbeck, J. R., & Sego, D. J. (1993). Team research in the 1990s. In M. M. Chemers & R, Ayman (Eds.), *Leadership Theory and Research: Perspectives and Directions* (pp. 245-270). San Diego, CA: Academic Press

Isen, A. M., & Baron, R. A. (1991). Positive affect as a factor in organisational behaviour. In L. L Cummings & B. M. Straw (Eds.), *Research in Organisational Behaviour* (Vol 13). Greenwich, CT: JAI Press

Israel, B. A., House, J. S., Schurman, S. J.,Heaney, C. A., & Mero, R. P. (1989). The relation of personal resources, participation, influence, interpersonal relationships and coping strategies to occupational stress, job strains and health: A multivariate analysis. *Work and Stress*, 3, 1163-1192.

Ivancevich, J. M., & Matteson, M. T. (1980). *Stress and work: A managerial perspective.* Glenview, IL: Scott Foresman and Company

Jackson, S. E. (1983). Participation in decision making as a strategy for reducing job-related strain. *Journal of Applied Psychology*, 68, 3-19

Jackson, S. E., & Schuler, R. S. (1985). A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings. *Organisational Behaviour and Human Decision Processes,* 36, 16-78

Jackson, P. R., Wall, T. D., Martin, R., & Davids, K. (1993). New measures of job control, cognitive demand and production responsibility. *Journal of Applied Psychology*, 78, 753-762

Jacobs, T. O. (1970). *Leadership and Exchange in Formal Organisations.* Alexandria, VA: Human Resources Research Organisation

Jamal, M. (1984). Job stress and job performance controversy: An empirical assessment. *Organisational Behaviour and Human Performance*, 33, 1-21

Jamal, M. (1997). Job stress, satisfaction, and mental health: an empirical examination of self-employed and non-self employed Canadians. *Journal of Small Business Management*, 35, 48-57

James, L. (1982). Aggregation bias in estimates of perceptual measures. *Journal of Applied Psychology,* 67, 219-229

James, L, R., & Sells, S. B. (1981). Psychological climate: Theoretical perspectives and empirical research. In D. Magnusson (Ed.), *Toward a Psychology of Situations: An Interactional Perspective* (pp. 275-295). Hillsdale, NJ: Erlbaum

James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69, 85-98

James, L. R., Demaree, R. G., & Wolf, G. (1993). Rwg: An assessment of within-group interrater agreement. *Journal of Applied Psychology*, 78, 306-309

Janis, I. L. (1982). *Groupthink: Psychological studies of policy decisions and fiascos.* Boston: Houghton Mifflin

Jayaratne, S., & Chess, W. A. (1984). The effects of emotional support on perceived job stress and strain. *The Journal of Applied Behavioural Science*, 20, 141-153

Jayaratne, S., Himle, D., & Chess, W. A. (1988). Dealing with work stress and strain: Is the perception of support more important than its use? *Journal of Applied Behavioural Science*, 24, 191-202

Jehn, K. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40, 256-282

Jex, S. M. (1998). *Stress and Job Performance: Theory, Research and Implications for Managerial Practice.* Thousand Oaks, CA: Sage

Jex, S. M. & Bliese, P.D. (1999). Efficacy beliefs as a moderator of the impact of work related stressors: A multi level study. *Journal of Applied Psychology*, 84, 349-361

Johnson, J. V., & Hall, E. M. (1988). Job strain, workplace social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health*, 78, 1336-1342

Jones, A., & James, L. (1979). Psychological climate: dimensions and relationships of individual and aggregated work environment perceptions. *Organisational Behaviour and Human Performance*, 23, 201-250

Jordan, M. H., Field, H. S. & Armenakis, A. A., (2002). The Relationship of Group Process Variables and Team Performance. A Team Level Analysis in a Field Setting. *Small Group Research*, 33, 121-150

Joyce, V. F., & Slocum, J. W. (1984). Collective climate: agreement as a basis for defining aggregate climate in organisations. *Academy of Management Journal*, 21, 721-742

Judge, T. A., & Locke, E. A. (1993). Effects of dysfunctional though processes on subjective well-being and job satisfaction. *Journal of Applied Psychology*, 78, 475-490

Judge, T. A., Thoreson, C. J., Bono, J. E. & Patton, G. K. (2001). The Job Satisfaction-Job Performance Relationship: A Qualitative and Quantitative Review. *Journal of Applied Psychology*, 127, 376-407

Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organisational Stress: Studies in Role Conflict and Ambiguity.* New York: Wiley

Kahn, R. L., & Antonucci, T. (1980). Convoys over the life course: Attachment, roles and social support. In P. B. Baltes & O. Brim (Eds.), *Life Span Development and Behaviour* (pp. 253-286). Boston: Lexington Press

Kahn, R. L., & Byosiere, P. (1992). Stress in organisations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and Organisational Psychology* (2nd ed., pp.571-650). Palo Alto, CA: Consulting Psychologists Press.

Kahn, R., & Antonucci, T. (1980). Convoys over the life course: Attachment roles and social support. In P. B. Baltes & O. G. Brim (Eds.), *Life-span Development & Behaviour* (pp. 253-286). New York: Academic Press

Kaplan, B. H., Cassell. J. C., & Gore. S. (1977). Social Support and Health. *Medical Care*, 15, 47-58

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24, 285-306

Karasek, R. A., Baker, D., Marxer, F., Ahlbom, A., & Theorell, T. (1981). Job design latitude, job demands and cardiovascular disease: A prospective study of Swedish men. *American Journal of Public Health*, 71, 694-705

Karasek, R. A., Triantis, K. P., & Chaudhry, S. S. (1982). Co-worker and supervisor support as moderators of associations between task characteristics and mental strain. *Journal of Occupational behaviour*, 3, 181-200

Karasek, R. A., & Theorell, T. (1990). *Healthy Work: Stress, Productivity and the Reconstruction of Work Life*. New York: Basic Books

Kasl, S.V (1973) mental health and the work environment, *Journal of Occupational Medicine*, 15, 509-518

Katz, D., & Kahn, R. L. (1978). *The social psychology of organisations* (2nd Ed.) New York, Wiley

Kaufman, G. M., & Beehr, T. A. (1986). Interactions between job stressors and social support: some counterintuitive results. *Journal of Applied Psychology*, 71, 522-526

Keita, G. P., & Hurell, J. J. (1994). *Job stress in a changing workforce: Investigating gender, diversity and family issues*. Washington, DC: American Psychological Association

Keller, R. T. (1986). Predictors of the performance of project groups in R & D organisations. *Academy of Management Journal*, 29, 715-726

Kelloway, E. J., & Barling, J. (1990). Item verses content item wording: Disentangling role conflict and role ambiguity. *Journal of Applied Psychology*, 75, 738-742

Kemery, E. R., Mossholder, K. W., Bedeian, A. (1987). Role stress, physical symptomatology, and turnover intentions: A causal analysis of three alternative specifications. *Journal of Occupational Behaviour*, 8, 11-23

Kerr, S., Hill, K. D., & Broedling, L.(1986). The first line supervisor: Phasing out or here to stay? *Academy of Management Review*, 11, 103-117

Kessler, R. C. (1992). In H. O. F. Veiel, & U. Bauman (Eds.), *The Meaning and Measurement of Social Support* (pp. 259-271). New York: Hemisphere Publishing Corporation

Kirmeyer, S. L., & Lin, T. (1987). Social support: Its relationship to observed communication with peers and supervisors. *Academy of Management Journal*, 30, 138-151

Kirmeyer, S. L., & Dougherty, T. W. (1988). Workload, tension, and coping: moderating effects of supervisor support. *Personnel Psychology*, 41, 125-139

Kivimäki, M., Kuk, G., Elovaino, M., Thomson, L.,Kalliomäki-Levanto, T., & Heikkilä, A. (1997). The Team Climate Inventory (TCI) – four or five factors? Testing the structure of the TCI in samples of high and low complexity jobs. *Journal of Occupational and Organizational Psychology*, 70, 375-389

Klein, K. J., Bliese, P. D., Kozlowski, S. W. J., Dansereau, F., Gavin, M. B., Griffin, M. A., Hofmann, D. A., James, L. R., Yamminarino, F. J., & Bligh, M. C. (2000). Multilevel analytical techniques. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel Theory Research and Methods in Organisations: Foundations, Extensions and New Directions* (pp. 512-553). San Francisco: Jossey-Bass

Klein, K. J., Conn, A. B., Smith, D. B., & Sorra, J. S. (2001). Is everyone in agreement? An exploration of within group agreement in employee perceptions of the work environment. *Journal of Applied Psychology*, 86, 3-16

Klein, K. J., Dansereau, F., & Hall, R. J. (1994). Levels issues in theory development, data collection and analysis. *Academy of Management Review*, 19, 195-229

Kline, T. J. B. (2001). Team members' and supervisor ratings of team performance: A case of inconsistency. *Psychological Reports*, 88, 1015-1022

Koch, J. D., & Steers, R. M. (1978). Job attachment, satisfaction and turnover among public sector employees. *Journal of Vocational Behaviour*, 12, 119-128

Koys, D. J. (2001). The effects of employee satisfaction, organisational citizenship behaviour and turnover on organisational effectiveness: A unit-level, longitudinal study. *Personnel Psychology*, 54, 101-114

Kopelman, R. E., Brief, A. P., & Guzzo, R. A. (1990). The role of climate and culture in productivity. In B. Schneider (Ed.), *Organisational Climate and Culture*, (pp. 282-318). San Francisco: Jossey-Bass

Kozlowski, S. W. J. & Bell, B S. (2001). Work groups and teams in organisations. In W. C. Borman, D. R Illgen, & R. J. Klimoski (Eds.), *Comprehensive handbook of psychology (Vol 12): Industrial and Organizational Psychology* (pp. 1-57). New York: Wiley.

Kozlowski, S. W. J. & Doherty, M. L. (1989). Integration of climate and leadership: examination of a neglected issue. *Journal of Applied Psychology*, 74, 546-553

Kozlowski, S. W. J., & Hattrup, K. (1992). A disagreement about within-group agreement: Disentangling issues of consistency verses consensus. *Journal of Applied Psychology*, 77, 161-167

Kozlowski, S. W. J. & Hultz, B. M. (1987). An exploration of climates for technical updating performance. *Personnel Psychology*, 40, 539-563

Kruger, L. J., Botman, H. I., & Goodenow, C. (1991). An investigation of social support and burnout among residential counsellors. *Child and Youth Care Forum*, 20, 335-352

LaRocco, J., & Jones, A. (1978). Co-worker and leader support as moderators of the stress-strain relationship in work situations. *Journal of Applied Psychology*, 63, 629-634

LaRocco, J., House, J. S., & French, J. R. P. (1980). Social support, occupational stress, and health. *Journal of Health and Social Behaviour*, 21, 202-218

Lakey, B., & Cohen, S. (2000). Social support theory and measurement. In S. Cohen, L . G. Underwood, & B. H. Gottlieb (Eds.), *Social Support Measurement and Intervention: A guide for health and social scientists* (pp. 29-52). New York: Oxford University Press.

Landbergis, P. A. (1988). Occupational health and health care workers: A test of the job demands-control model. *Journal of Organisational Behaviour*, 9, 217-240

Landeweerd, J. A., & Boumans, N. P. G. (1994). The effect of work dimensions and need for autonomy on nurses work satisfaction and health. *Journal of Occupational and Organisational Psychology*, 67, 207-217

Larson, C. E., & LaFasto, F. M. J. (1989). *TeamWork: What must go right/ what can go wrong*. Newbury Park, CA: Sage

Lantz, A., & LaFlamme, L. (1996). Leadership, social support and work influence. A study of the group form of working in a Swedish psychiatric hospital. *Industrial Relations*, 51, 693-725

Latane, B., Williams, K., & Harkins, S. (1979). Many hands make light work: The causes and consequences of social loafing. *Journal of Personality and Social Behaviour*, 37, 882-832

Lauderdale, P., Smith-Cunnien, P., Parker, J., & Inverarity, J. (1984). External threat and the definition of deviance. *Journal of Personality and Social Psychology*, 46, 1058-1068

Lazarus, R. S. (1966). *Psychological Stress and the Coping Perspective*. New York: McGraw-Hill

Lazarus, R. S., & Folkman, S. (1984). *Stress, Coping and Adaptation*. New York: Springer

Leatham, G., & Duck, S. (1990). Conversations with friends and the dynamics of social support. In S, Duck, & R. Silver (Eds.), *Personal Relationships and Social Support* (pp. 1-29). London: Sage

Ledford, G. E., Lawler, E. E., & Mohrman, S. A. (1988). The quality circle and its variations. In J. P. Campbell, R. J. Campbell & Associates (Eds.), *Productivity in Organisations* (pp. 255-294). San Francisco: Jossey-Bass

Lee, R. M. & Robbins, S. B. (1995). Measuring belongingness: the social connectedness and the social assurance scales. *Journal of Counselling Psychology*, 45, 153-161

Leiter, M. P. (1991). The dream denied: Professional burnout and the constraints of human service organisations. *Canadian Psychology*, 32, 547-555

Leiter, M. P. (1992). Burnout as a crisis in professional role structures: Measurement and conceptual issues. *Anxiety, Stress and Coping*, 5, 79-93

Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organisational commitment. *Journal of Organizational Behaviour*, 9, 297-308

Lewin, K. (1947). Frontiers in group dynamics. *Human Relations*, 1, 5-42

Likert, R. (1961). *New Patterns of Management*. New York: McGraw-Hill

Lindell, M. K. & Brandt, C. J. (2000). Climate quality and climate consensus as mediators of the relationship between organisational antecedents and outcomes. *Journal of Applied Psychology,* 85, 331-348

Lindorff, M. (2000). Is it better to perceive than receive? Social support, stress and strain for managers. Psychology, *Health and Medicine*, 5, 271-286

Lim, V. C. (1997). Moderating effects of work based support on the relationship between job insecurity and its consequences. *Work and Stress*, 11, 251-266

Litwak, E., & Messeri, P. (1989). Organisational theory, social supports and mortality rates: A theoretical convergence. *American Sociological Review*, 54, 49-66

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organisational Psychology* (pp. 1297-1343). Chicago: Rand NcNally

Lott, A. J., & Lott, B. E. (1965). Group cohesiveness as interpersonal attraction: A review of relationships with antecedent and consequent variables. *Psychological Bulletin*, 64, 259-309

Lowenthal, M. F. & Haven, C. (1968). Interaction and adaptation: intimacy as a critical variable. *American Sociological Review*, 33, 20-30

Lowin, A., & Craig, J. R. (1968). The influence of level of performance on managerial style: An experimental object-lesson in the ambiguity of correlational data. *Organizational Behaviour and Human Decision Performance*, 3, 440-458

Lynch, J. J. (1979). *The Broken Heart: the Medial Consequences of Loneliness*. New York: Basis Books

Lu, L., & Argyle, M. (1992). Receiving and giving support: effects on relationships and well-being. *Counselling Psychology Quarterly*, 5, 123-133

Mak, A, S. & Mueller, J. (2000). Job Insecurity, coping resources and personality dispositions in occupational strain. *Work and Stress*, 14, 312-328.

Mankin, D., Cohen, S. G., & Bikson, T. K. (1996). *Teams and Technology: Fulfilling the Promise of the New Organisation*. Boston, MA: Harvard Business School Press

Manning, F. J., & Fullerton, T. D. (1988). Health and well-being in highly cohesive units on the US Army. *Journal of Applied Social Psychology*, 18, 503-519

Marcelissen, F. H. G., Winnubst, J. A. M., Buunk, B. P., & De Wolff, Ch. J. (1988). Social support and stress: A causal analysis. *Social Science and Medicine*, 26, 365-373

Margolis, B.L, Kroes, WH., and Quinn R.P (1974) Job stress: an unlisted occupational hazard. *Journal of Occupational Medicine*, 16, 654-661

Marrow, A., Bower, D., & Seashore, S. (1967). *Management by Participation*. New York: Harper & Row

Maruyama, G. H (1998). *Basics of Structural Equation Modelling*, London: Sage

Maslach, C. (1993). Burnout: A multi-dimensional perspective. In W. B. Schaufeli, C. Maslach & T. Marek (Eds.), *Professional Burnout: Recent Developments in Theory and Research* (pp. 19-32). New York: Taylor Francis

Maslach, C., & Leiter, M. P. (1996). *The Truth About Burnout*. San Francisco: Jossey-Bass

Maslow, A. H. (1968). *Toward a Psychology of Being*. New York: Van Nostrand

Matsui, T., & Onglacto, M. L. (1992). Career self-efficacy as a moderator of the relation between occupational stress and strain. *Journal of Vocational Behaviour*, 41, 79-88

McAdams, D. P., & Bryant, F. B., (1987). Intimacy motivation and subjective mental health in a nationwide sample. *Journal of Personality*, 55, 395-413

McGrath, J. E. (1964). *Social Psychology a Brief Introduction*. New York: Holt Rinehart & Winston

McGrath, J. E. (1970). *Social and Psychological Factors in Stress*. New York: Holt Reinhart & Winston

McGrath, J. E. (1976). Stress and behaviour in organisations. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organisational Psychology* (pp. 1351-1395). Chicago: Rand McNally

McGrath, J. E. (1984). *Groups: Interaction and performance.* Engelwood Cliffs, NJ: Prentice Hall

McIntosh, N. L. (1991). Identification and investigation of the properties of social support. *Journal of Organisational Behaviour*, 12, 201-217

Mead, G. H. (1934). *On Social Psychology.* Chicago: University of Chicago Press

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualisation of organisational commitment. *Human Resource Management Review*

Meyer, J. P., Paunonen, S. V., Gellatly, I. R., Goffin, R. D., & Jackson, D. N. (1989). Organisational commitment and job performance: it's the nature of the commitment that counts. *Journal of Applied Psychology*, 74, 152-156

Miles, R. H. (1976). Role requirements as sources of organisational stress. *Journal of Applied Psychology*, 61, 172-179

Miller, P. M., & Ingram, J. G. (1979). Reflections of the life events to illness link with some preliminary findings. In I. G. Sarason & C. D. Speilberger (Eds.), *Stress and Anxiety* (pp. 313-336). New York: Hemisphere

Miller, K. I., & Monge, P. R. (1986). Participation, satisfaction, and productivity: A meta-analytic review. *Academy of Management Journal*, 29, 727-753

Miller, I. W., & Norman, W. H. (1979). Learned helplessness in humans: A review and attribution theory model. *Psychological Bulletin*, 86, 93-118

Miller, K., Ellis, B., Zook, E., & Lyles, J. (1990). An integrated model of communication, stress and burnout in the workplace. *Communication research*, 17, 300-326

Mitchell, J. C. (1969). The concepts and use of social networks. In J. C. Mitchell (Ed.), *Social Networks in Urban Situations* (pp. 1-50). Manchester: Manchester University Press

Moch, M. K. (1980). Job involvement, internal motivation, and employees integration into networks of work relationships. *Organisational Behaviour and Human Performance*, 25, 15-31

Monroe, S. M., & Johnson, S. L., (1992). Social support, depression, and other mental disorders: in retrospect and toward future prospects. In H. O. F., Veiel & U., Baumnan (Eds.) *The Meaning and Measurement of Social Support* (pp. 93-105). New York, Taylor Francis

Moreland, R. L., & Levine, J. M. (1982). Group socialisation: Temporal changes in individual-group relations. In L. Berkowitz (Ed.), *Advances in Experimental Psychology* (pp.137-192). New York, NY: Academic Press

Mohrman, S, A, Cohen, S, G., & Mohrman, A, M. (1995) *Designing team based organisations: new forms for knowledge work.* San Francisco: Jossey Bass.

Morris, J. H., & Koch, J. L. (1979). Impacts of role perceptions on organisational commitment, job involvement and psychosomatic illness among three vocational groupings. *Journal of Vocational Behaviour,* 14, 88-101

Morris, J. H., Steers, R. M., & Koch, J. L (1979). Influence of organisational structure on role conflict and ambiguity for three occupational groupings. *Academy of Management Journal,* 22, 58-71

Morris, J. H., & Sherman, J. D. (1981). Generalisability of an organisational commitment model. *Academy of Management Journal,* 24, 512-526

Moscovici, S., & Doise, W. (1994). *Conflict and Consensus: A General Theory of Collective Decisions.* London: Sage

Mossholder, K.W., Bedeian, A.G. (1983) Group interactional processes: individual and group level effects. *Group and Organization Studies,* 8, 187-202

Mossholder, K.W., Bedeian, A.G., & Armenakis, A. A., (1982) Group Process-Work outcome relationships: a note on the moderating impact of self-esteem. *Academy of Management Journal,* 25, 575-585

Motowildo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: Its causes and consequences for job performance. *Journal of Applied Psychology,* 71, 618-629

Mullen, B., & Cooper, C. (1994). The relation between group cohesiveness and performance: An integration. *Psychological Bulletin,* 115, 210-227

Myers, D. (1992). *The pursuit of happiness.* New York: Morrow

Norris, F. H., & Kaniasty, K. (1996). Received and perceived social support in times of stress. *Journal of Personality and Social Psychology,* 71, 498-511

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd Ed.). New York: McGraw-Hill

O'Driskell & Cooper, C. (1996). Sources and management of excessive job stress and burnout. In P. Warr, (Ed.). *Psychology at Work* (pp. 188-223). London: Penguin Books

O'Reilly, C. A., & Chatman, J. (1986). Organisational commitment and psychological attachment: The effects of compliance, identification and internalisation on prosocial behaviour. *Journal of Applied Psychology,* 71, 492-499

Ostroff, C. (1992). The relationship between satisfaction, attitudes and performance: An organisational level analysis. *Journal of Applied Psychology*, 77, 963-974

Ostroff, C. (1993). Comparing correlations based on individual-level and aggregated data. *Journal of Applied Psychology*, 78, 569-582

Ostroff, C., & Bowen, D. E. (2000). Moving HR to a higher level: HR practices and organisational effectiveness. In K. J. Klein, & S. W. J. Kozlowski (Eds.), *Mulitlevel Theory, Research and Methods in Organisations* (pp. 211-266). San Francisco: Jossey-Bass

Parasuraman, S., Greenhaus, J. H., & Granrose, C. S. (1992). Role stressors, social support, and well-being among two-career couples. *Journal of Organisational Behaviour*, 13, 339-356

Parker, S. K., & Sprigg, C. A. (1999). Minimizing and maximising learning: the role of job demands, job control and proactive personality. *Journal of Applied Psychology*, 84, 925-939

Parkes, K. R. (1982). Occupational stress among student nurses: A natural experiment. *Journal of Applied Psychology*, 67, 784-796

Parkes, K. R., Mendham, C. A., & von Rabenau, C. (1994). Social support and the demand-discretion model of job stress: tests of additive and interactive effects in two samples. *Journal of Vocational Behaviour*, 44, 91-113

Payne, R. L., & Jones, J. G. (1987). Measurement and methodological issues in social support. In S. V. Kasl & C. L. Cooper (Eds.), *Stress and Health: Issues in Research Methodology* (pp. 167-205). Chichester: John Wiley & Sons

Peeters, M. (1994). Supportive interactions and stressful events at work: An event-recording approach. Unpublished doctoral dissertation, Katholieke Universiteit Nijmengen, The Netherlands

Peeters, M. C. W., & Le Blanc, P. M. (2001). Towards a match between job demands and sources of social support: A study among oncology care providers. European Journal of *Work and Organisational Psychology*, 10, 53-72

Peiro, J. M., Gonzalez-Roma, V., & Ramos, J (1992). The influence of work-team climate on role stress, tension, satisfaction and leadership perceptions. *European Review of Applied Psychology*, 42, 49-58

Peters, L. H., & O'Conner, E. J. (1980). Situational constraints and work outcomes: The influences of a frequently overlooked construct. *Academy of Management Review*, 5, 391-397

Petty, M. M., McGee, G. W., & Cavender, J. W. (1984). A meta-analysis of the relationship between individual job satisfaction and individual performance. *Academy of Management Review*, 9, 712-721

Phillips, J. M. (2001) The Role of Decision Influence and Team Performance in Member Self-Efficacy, Withdrawal, Satisfaction with the Leader, and Willingness to Return. *Organizational Behaviour and Human Decision Processes*, 84, 122-147

Pierce, G. R., Sarason, I. B., & Sarason, B. R. (1991). General and relationship based perceptions of social support: Are two constructs better than one? *Journal of Personality and Social Psychology*, 61, 1028-1039

Pines, A., Aranson, A., & Kafry, D. (1981). *Burnout: From tedium to personal growth*. NewYork: Free Press

Plas, J., Hoover-Dempsey, K., & Wallston, B. (1985). A conceptualisation of professional women's interpersonal fields: Social support, reference groups and persons-to-be-reckoned with. In I. G. Sarason & B. R. Sarason (Eds.), *Social Support: Theory, Research and Applications* (pp. 187-204). Boston: Martinus Nijhoff

Potter, E. H., & Fielder, F. E. (1981). The utilization of staff member intelligence and experience under high and low stress. *Academy of Management Journal*, 24, 361- 376

Price, J. L., & Mueller, C. W. (1981). A causal model of turnover for registered nurses. *Academy of Management Journal*, 24, 543-565

Pretty, G. M. H., McCarthy, M. E., & Catano, V. M. (1992). Psychological environments and burnout: gender considerations within the corporation. *Journal of Organisational Behaviour*, 13, 701-711

Procidano, M., & Heller, K. (1983). Measures of perceived social support from friends and from family: The validational studies. *American Journal of Community Psychology*, 11, 1-24

Quick, J. C., Quick, J. D., Nelson, D. L., & Hurrell, J. J. (1997). *Preventative stress management in organisations*. Washington, DC: American Psychological Association

Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviours and environmental policy in employee "ecoinitiatives" at leading-edge European companies. *Academy of Management Journal*, 43, 605-626

Reeves, R. (2001). *Happy Mondays: Putting the Pleasure Back into Work*. London: Pearson Education

Reichers, A., & Schneider, B. (1990). Climate and culture: An evolution of constructs. In B. Schneider (Ed.), *Organisational Climate and Culture* (pp. 5-39). San Francisco: Jossey-Bass

Repetti, R. L. (1987). Individual and common components of the social environment at work and psychological well-being. *Journal of Personality and Social Psychology*, 52, 710-720

Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organisation: the contribution of perceived organisational support. *Journal of Applied Psychology*, 86, 825-836

Richman, J. M., & Rosenfeld, L. B. (1987) Stress Reduction for Hospice Workers: A support group model. *The Hospice Journal*, 3, 205-221

Richman, J. M., Rosenfeld, L. B. & Hardy, C. J. (1993). The social support survey: A validation study for a clinical measure of the social support process. *Research on social work practice*, 3, 288-311

Rizzo, J., House, R., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organisations. *Administrative Science Quarterly*, 15, 150-163

Rook, K. S. (1984). The negative side of social interaction: impact on psychological well-being. *Journal of Personality and Social Psychology*, 46, 1097-1108

Rosenfeld, L. B., Richman, J. M. & Hardy, C. J. (1989). Examining social support networks among athletes: Description and relationship to stress. *The Sport Psychologist*, 3, 23-33

Rosenfeld, L. B., & Richman, J. M. (1997). Developing effective social support: Team building and the social support process. *Journal of Applied Sport Psychology*, 9, 133-153

Rosenfeld, L. B., Richman, J. M., & Bowen, G. L. (1998). Supportive communication and school outcomes for academically "at-risk" and other low income middle school students. *Communication Education*, 47, 309-325

Rosenfeld, L. B., & Richman, J. M (2000). Personal communication.

Ryan, A. M., Schmitt, M. J Johnson, R (1996) Attitudes and effectiveness: examining relations at an organizational level. *Personnel Psychology*, 49, 853-882

Ruh, R. A., White, J. K., & Wood, R. R. (1975). Job involvement, values, personal background, participation in decision making, and job attitudes. *Academy of Management Journal*, 18, 300-312

Russell, D. W., Altmaier, E., & Van Velzen, D. (1987). Job related stress, social support, and burnout among classroom teachers. Journal of Applied Psychology, 72, 269-274

Sarason, I. G., Levine, H., Basham, R., & Sarason, B. R. (1983). Concomitants of support: The social support questionnaire. *Journal of Personality and Social Psychology*, 44, 127-139

Sarason, I. B., Sarason, B. R., Shearin, E. N., & Pierce, G. R. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, 4, 497-510

Sarason, I, G., Sarason. B. R., & Pierce, G. R. (1990). Social support: the search for theory. *Journal of Social sand Clinical Psychology*, 9, 113-147

Sarason, I. G., Shearin, E. N., Pierce, G. R., & Sarason, B. R. (1987). Interrelations of social support measures: Theoretical and practical implications. *Journal of Personality and Social Psychology*, 52, 813-832

Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology*, 44, 127-139

Sarason, I. G., Pierce, G. R. & Sarason, B. R. (1994). General and specific perceptions of social support. In W. R. Avison & I. H. Gottlib (Eds.), *Stress and Mental Health*. New York: Plenum Press

Sarason, I. G., Sarason, B. R, & Shearin, E. N. (1986). Social support as an individual difference variable: Its stability, origins and relational aspects. *Journal of Personality and Social Psychology*, 50, 845-855

Sargent, L. D., & Terry, D. J. (2000). The moderating role of social support in Karasek's job strain model. *Work and Stress*, 14, 245-261

Savery, L. K. (1988). The influence of social support on the reaction of an employee. *Journal of Managerial Psychology*, 3, 27-31

Savery, L. K. (1991). Perceived and preferred styles of leadership influences on employee job satisfaction. *Journal of Managerial Psychology*, 6, 28-32

Savery, L. K. (1994). Attitudes to work: the influence of perceived style of leadership on a group of workers. *Leadership & Organizational Development Journal*, 15, 12-18

Savery, L. K., & Hall, K. (1985). Management work, stress and the uses of leisure. *Human Resource Management Australia*, 23, 1-8

Savery, L. K., & Luks, A. J. (2001). The relationship between empowerment, job satisfaction and reported stress levels: some Australian evidence. *Leadership and Organisational Development Journal*, 33, 97-104

Seashore, S. E. (1954). *Group cohesiveness in the Industrial work group*. Ann Arbor: Survey Research Center, Institute for social research, University of Michigan.

Schaubroeck, J., & Fink, L. S. (1998). Facilitating and inhibiting effects of job control and social support on stress outcomes and role behaviour: a contingency model. *Journal of Organizational Behaviour*, 19, 167-195

Schenk, C. L., Kinkie, A. J., & Davy, J. A. (1997). Testing the mediating processes between work stressors and subjective well-being. *Journal of Vocational Behaviour*, 50, 96-123

Schaefer, C., Coyne, J. C., & Lazarus, R. S. (1981). The health related functions of social support. *Journal of Behavioural Medicine*, 4, 381-406

Schneider, B., & Bowen, D. E. (1992). Personnel/human resources management in the service sector. In G. R. Ferris & K. M. Rowland (Eds.), *Research in Personnel and Human Resource Management* (Vol. 10, pp. 1-30). Greenwich, CT: JAI

Schneider, B., & Reichers, A. E. (1983). On the aetiology of climate. *Personnel Psychology*, 36, 19-39

Schneider, B., Salvaggio, A. N., & Subirats, M. (2002). Climate strength: A new direction for climate research. *Journal of Applied Psychology*, 87, 220-229

Schein, E. H. (1985). *Organisational Cultured and Leadership*. San Francisco: Jossey Bass

Schuler, R. S. (1982).An integrative transactional process model of stress in organisations. *Journal of Occupational Behaviour*, 3, 5-19

Seers, A. (1989). Team-member exchange quality: A new construct for role-making research. *Organisational Behaviour and Human Decision Processes*, 43, 118-135

Seers, A., Petty, M. M., & Cashman, J.F (1995). Team-Member Exchange Under Team and Traditional Management. A Naturally Occurring Quasi-Experiment. *Group & Organizational Management*, 20, 18-38

Seyle, H. (1956). *The Stress of Life*. New York: McGraw: Hill

Shaw, M. E. (1981). *Group Dynamics: The Psychology of Small Group Behaviour*. New York: McGraw-Hill

Shea, G. P., & Guzzo, R. A. (1987). Groups as human resources. In K. M. Rowland, G. R. Ferris (Eds.), *Research in Human Resources and Personnel Manage*ment (vol 5, pp.323-356). Greenwich, CT: JAI Press

Shumaker, S., & Brownell, A. (1984). Toward a theory of social support: Closing conceptual gaps. *Journal of Social Issues*, 41, 11-46

Skaret, D. J., & Bruning, N. S. (1986). Attitudes about the work group: An added moderator of the relationship between leader behaviour and job satisfaction. *Group and Organisational Studies*, 11, 254-279

Skevington, S. (1981). Intergroup relations and nursing. *European Journal of Social Psychology*, 11, 43-59

Slack, K. J., Etchegaray, J. M., Jones, A. P., Tetrick, L. E., Da Silva, N. Latting, J. K., & Beck, M. H. (2002). Supervisor support and employee performance: The role of perceived values. Poster presented at the 17th Annual Conference of the Society for Industrial and Organisational Psychology (April, 2002). Toronto, Canada

Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organisational citizenship behaviour: Its nature and antecedents. *Journal of Applied Psychology*, 68, 653-663

Smith et al (1984) Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organisational citizenship behaviour: Its nature and antecedents. *Journal of Applied Psychology*, 68, 653-663

Smith, P. C., Kendall, L., & Hulin, C. (1969). *The Measurement of Satisfaction in Work and Retirement*. Chicago, IL: Rand-McNally

Smith, C. S., Tisak, J., & Schmieder, R. A. (1993). The measurement properties of the role conflict and role ambiguity scales: A review and extension of the empirical research. *Journal of Organisational Behaviour*, 14, 37-48

Smith, K. G., Smith, K. A., Olian, J. D., Sims, H. P., O'Brannon, D. P., & Scully, J. A. (1994).Top management team demography and process: The role of social integration and communication. *Administrative Science Quarterly*, 39, 412-438

Smither, J. W., London, M., Vasilopoulos, N. L., Reilly, R. R., Millsap, R. E., & Salvemini, N. (1995). An examination of an upward feedback programme over time, *Personnel Psychology*, 48, 1-34

Soderfeldt, B., Soderfeldt, M., Jones, K., O'Campo, P., Muntaner, C., Ohlson, C. G., & Warg, L. W. (1997). Does organisation matter? A multi-level analysis of the demand-control model applied to human services. *Social Science and Medicine*, 44, 527-534

Sommers, J. A., Thomas, J. L., & Sinclair, R. R. (2002). Examining ambient stress effects on military readiness, attachment and well-being. Paper presented at the 17th Annual Conference of the Society for Industrial and Organisational Psychology (April, 2002). Toronto, Canada

Sonnentag, S. (1996). Work Group Factors and Individual Well-Being. In M.A. West (Ed) *Handbook of Work Group Psychology* (pp. 345-367). Chichester: John Wiley & Sons

Sparks, K., & Cooper, C. L. (1999). Occupational differences in the work-strain relationship: Towards the use of situation-specific models. *Journal of Occupational and Organisational Psychology*, 72, 219-229

Sparrow, P. R. (1998). The pursuit of multiple and parallel organisational flexibilities: reconstituting jobs. *European Journal of Work and Organisational Psychology*, 7, 79-95

Sparrow, P. R., & West, M. A. (2002). Psychology and organisational effectiveness. In I. T. Robertson, M. Callinan, D. Bartrum (Eds.), *Organisational Effectiveness: The Role of Psychology* (pp. 13-44). Chichester: John Wiley & Sons

Spector, P. E. (1994). Using self-report questionnaires in OB research: a comment on the use of a controversial method. *Journal of Organisational Behaviour*, 15, 385-392

Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the job satisfaction survey. *American Journal of Community Psychology*, 13, 693-713

Spector, P. E. (1987). Interactive effects of perceived control and job stressors on affective reactions and health outcomes for clerical workers. *Work and Stress*, 1, 155-162

Spector, P. E. (1994). Using self-report questionnaires in OB research: A comment on the use of a controversial method. *Journal of Organisational Behaviour*, 15, 385-392

Spector, P. E., Dywer, D. J., & Jex, S. M. (1988). Relation of job stressors to affective, health and performance outcomes: A comparison of multiple data sources. *Journal of Applied Psychology*, 73, 11-19

Steers, R. M. (1977). Effects of need achievement on the job performance-job attitude relationship. *Journal of Applied Psychology*, 60, 678-682

Steiner, I. D. (1972). *Group Processes and Productivity*. New York: Academic Press

Stephens, C., & Long, N. (2000). Communication with police supervisors and peers as a buffer of work related traumatic stress, *Journal of Organisational Behaviour*, 21, 407-424

Steptoe, A. (2000). Stress, social support and cardiovascular activity over the working day. *International Journal of Psychophysiology*, 37, 299-308

Stevens, F., Diedericks, J., & Phillipsen, H. (1992). Physician satisfaction, professional characteristics and behaviour formulisation in hospitals. *Social Science and Medicine*, 35, 295-303

Stumpf, S., Brief, A., & Hartman, K. (1987). Self-efficacy expectations and coping with career-related events. *Journal of Vocational Behaviour*, 31, 91-108

Sullivan, S. E., & Bhagat, R. S. (1992). Organisational stress, job satisfaction and job performance: Where do we go from here? *Journal of Management*, 18, 353-374

Sundstrom, E.,De Meuse, K. P., & Furtell, D. (1990). Work teams: Applications and effectiveness. *American Psychologist*, 45, 120-133

Tabachnick, B. G. & Fidell, L. S. (2000). *Using Multivariate Statistics* (4th Edition). Needham Heights, MA: Allyn & Bacon

Tajfel, H. (1972) Social categorisation. In S. Moscovici (Ed.), *Introduction to Social Psychology* (pp. 272-302). Paris: Larouse

Tajfel, H. (1979). Individuals and groups in social psychology. *British Journal of Social and Clinical Psychology*, 18, 183-190

Tannenbaum, S. I., Salas, E., & Cannon-Bowers, J. A. (1996). Promoting team effectiveness. In M. A. West (Ed.), *Handbook of Work Group Psychology* (pp. 503-530). Chichester: Wiley

Terborg, R. R., Castore, C., & DeNinno, J. A. (1976). A longitudinal field investigation of the impact of group composition on group performance and cohesion. *Journal of Personality and Social Psychology,* 34, 782-790

Terry, D. J., Nielson, M., & Perchard, L. (1993). Effects of work stress on psychological well-being and job satisfaction: The stress-buffering role of social support. *Australian Journal of Psychology*, 45, 168-175

Thoits, P. A. (1982). Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. *Journal of Health and Social Behaviour*, 23, 145-159

Thoits, P. A. (1985). Social support processes and psychological well-being: Theoretical possibilities. In I. G. Sarason, & B. Sarason (Eds.), *Social Support: Theory, Research & Applications* (pp. 51-72). The Hauge, Netherlands: Martinus Nijhof

Tierney, P (1999) Work relations as a precursor to a psychological climate for change. The role of work group supervisors and peers. *Journal of Organizational Change,* 12, 120-133

Theorell, T. G., & Karasek, R. A. (1996). Current issues relating psychosocial job strain and cardiovascular disease research. *Journal of Occupational Health Psychology*, 1, 9-26

Trist, E. L., & Bamforth, K. W. (1951). Some Social and Psychological consequences of the longwall method of coal-getting. *Human Relations*, 4, 3-38

Tubre, T. C., Sifferman, J. J., & Collins, J. M. (1996). Jackson & Schuler (1985) revisited: A meta-analytic review of the relationship between role stress and job performance. Paper presented at the annual meeting for the Society for Industrial and Organisational Psychology, San Diego, CA.

Turner, J. C. (1981). The experimental social psychology of intergroup behaviour. In J. C. Turner & H. Giles (Eds.). *Intergroup Behaviour* (pp. 66-101). Oxford: Basil Blackwell

Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social Identity and Intergroup Relations* (pp. 15-40). Cambridge: Cambridge University Press

Turner, J. C. (1985). Social categorisation and the self-concept: A social cognitive theory of group behaviour. In E. J. Lawler (Ed.), *Advances in Group Processes* (Vol 2, pp77-122). Greenwich, CT: JAI

Turner, R, J., Frankel, B. G., & Levin, D, M. (1983). Social support: conceptualisation, measurement and implications for mental health. *Research in Community and Mental Health*, 3, 67-111

Uchino, B. N., Cacioppo, J, T., & Kiecolt-Glaser, J, K., (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin*, 119, 488-531

Ulrich, D., Halbrook, R., Mecker, D., Stucklik, M., & Thorpe, S. (1991). Employee and customer attachment: Synergies for competitive advantage. *Human Resource Planning*, 14, 89-103

Vachon, M., Lyall, W., Rogers, J., Freedman-Leftofsky, K., & Freeman, S. (1980). A controlled study of a self-help intervention for widows. *American Journal of Psychiatry*, 137, 1380-1384

Van der Pompe, G., & de Heus, P. (1993). Work stress, social support, and strains among male and female managers. *Anxiety, Stress and Coping*, 6, 215-229

Van Dierkendonk, D., Buunk, B. P., & Schaufeli, W. B. (1998). The evaluation of an individual burnout intervention program: The role of inequity and social support. *Journal of Applied Psychology*, 83, 392-407

Van Dierkendonk, D., Haynes, C., Borrill, C. S., & Stride, C. (in preparation). Leadership behaviour, upward feedback and subordinate well-being: Findings from a longitudinal intervention

Van Knippenberg, A. F. M. (1984). *Intergroup differences in group perceptions*. In H. Tajfel (Ed.), The Social Dimension. London: Cambridge University Press

Van Knippenberg, A., & Van Oers, H. (1984). Social identity and equity concerns in intergroup perceptions. *British Journal of Social Psychology*, 23, 351-361

Van Sell, M., Brief, A. P., & Schuler, R. S. (1981). Role conflict and role ambiguity: Integration of the literature and directions for future research. *Human Relations*, 34, 43-71

Van Yperen, N. V., van der Berg, A. E., & Willering, M. C. (1999). Towards a better understanding of the link between participation in decision-making and organisational citizenship behaviour: A multi-level analysis. *Journal of Occupational and Organisational Psychology*, 72, 377-392

Van Yperen, N. V., & Snijders, T. A. B. (2000). A multilevel analysis of the demand control model: Is stress at work determined by factors at the group level or the individual level? *Journal of Occupational Health Psychology*, 5, 182-190

Vaux, A. (1982). Measures of three levels of social support: Resources, behaviour and feelings. Unpublished manuscript, Southern Illinois University. In A. Vaux, (1992). Assessment of social support. In H. O. F. Veiel, & U. Bauman (Eds.), *The Meaning and Measurement of Social Support* (pp. 193-216). New York: Hemisphere Publishing Corporation

Vaux, A. (1992). Assessment of social support. In H. O. F. Veiel, & U. Bauman (Eds.), *The Meaning and Measurement of Social Support* (pp. 193-216). New York: Hemisphere Publishing Corporation

Veiel, H. O. F. (1985). Dimensions of social support: A conceptual framework for research. *Social Psychiatry*, 20, 156-162

Veiel, H. O. F., & Baumann, U. (1992). *The Meaning and Measurement of Social Support.* New York: Hemisphere Publishing Corporation.

Veiel, H. O. F., Crisand, M., Stroszeck-Somscher, H., & Herrie, J. (1991). Social support networks of chronically strained couples: Similarity and overlap. *Journal of Social and Personal Relationships,* 8, 279-292

Viswesvaran, C., Sanchez, J. I., & Fisher, J. (1999). The role of social support in the process of work stress: A meta-analysis. *Journal of Vocational Behaviour*, 54, 314-334

Vroom, V. H. (1960). *Some Personality Determinants of the Effects of Participation.* Engelwood Cliffs, NL: Prentice Hall

Vroom, V. H. (1964). *Work and Motivation.* New York: Wiley

Vroom, V. H., & Yetton, P. W. (1973). *Leadership and Decision-making.* Pittsburgh: University of Pittsburgh Press

Wagner, J. A. (1994). Participant's effects on performance and satisfaction: A reconsideration of research evidence. *Academy of Management Review*, 19, 312-330

Ward, A. E., & Davis, E. (1995). The effect of benefit satisfaction on organisational commitment. *Compensation and Benefits Management*, 11, 35-40

Warr, P. D. (1987). *Work, Unemployment, and Mental Health.* Oxford: Oxford University Press.

Warr, P. B. (1990). The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology,* 63, 193-210

Warr. P. B. (1996). Employee well-being. In P. B. Warr (Ed.), *Psychology at Work,* (4th Edition, pp. 224-253). London: Penguin.

Watson, W. E., Kumar, K., & Michaelson, L. K. (1993). Cultural diversity's impact on interaction process and performance: comparing homogenous and diverse task groups. *Academy of Management Journal*, 36, 590-602

Weingart, L. R. (1989). Group goals, effort, planning and group performance. Unpublished Doctoral Dissertation. Northwestern University, Evanston, IL

Weisenfeld, A. R., & Weis, H. M. (1979). A mental health consultation program for beauticians. *Professional Psychology*, 10, 786-792

Weiss, M. R., & Friedrichs, W. D. (1986). The influence of leader behaviour, coach attributes, and institutional variables on performance and satisfaction of collegiate basketball teams. *Journal of Sport Psychology*, 8, 332-346

Wellins, R. S., Byham, W. C., & Dixon, G. R. (1994). *Inside Teams: How 20 world-class organisations are winning through teamwork.* San Francisco: Jossey-Bass

West, M. W. (1994). *Effective Teamwork.* Leicester: British Psychological Society

West, M. A. (1996). *The Handbook of Work Group Psychology.* Chichester: Wiley

West, M. A., Borrill, C. S., & Unsworth, K. L. (1998). Team effectiveness in organisations. In C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial and Organisational Psychology* (Vol. 13, pp. 1-48). Chichester: Wiley

West, M. A., Smith, H., Feng, W. L., & Lawthom, R. (1998). Research excellence and departmental climate in British universities. *Journal of Occupational and Organisational Psychology*, 71, 261-281

Westre, K. R., & Weiss, M. R. (1991). The relationship between perceived coaching behaviours and group cohesion in high school football teams. *Sport Psychologist*, 5, 41-54

Wethington, E., & Kessler, R. C. (1986). Perceived support, received support, and adjustment to stressful life events. *Journal of Health and Social Behaviour*, 27, 78-89

Wilcox, B. L., & Vernberg, E. (1985). Conceptual and theoretical dilemmas facing research. In I. G. Sarason & B. R. Sarason (Eds.), *Social Support: Theory, Research and Application* (pp. 3-20). The Hague: Martinus Nijhoff

Williams, T. (1998). Job satisfaction in teams. *The International Journal Of Human Resource Management,* 9, 782-799

Wills, H. T., & Shinar, O. (2000). Measuring perceived and received social support. In S Cohen, Underwood, L. G. & Gottlieb, B. H. (2000). *Social Support Measurement and Intervention, A guide for health and social scientists* (pp. 86-135). New York: Oxford University Press

Williams, L. J., Ford, L. R., & Nyugen, N. (2002). Basic and advanced measurement models for confirmatory factor analysis. In S. G. Rogelberg (Ed.*), Handbook of Research Methods in Industrial and Organisational Psychology* (pp. 363-389). Oxford: Blackwell

Williams, A. W., Ware, J. E., & Donald, C. A. (1981). A model of mental health, life events and social supports applicable to general populations. *Journal of Health and Social Behaviour*, 22, 324-336

Winnubst, J. A. M., Buunk, B. P., & Marcelissen, F. H. G. (1988). Social support and stress: perspectives and processes. In S. Fisher & J. Reason (1988*) Handbook of Life Stress, Cognition and Health*, (pp. 511-528). New York: John Wiley & Sons

Wood, M. T. (1973). Power relationships and group decision making in organisations. *Psychological Bulletin*, 79, 280-293

Woodman, R. W., & Sherwood, J. J. (1980). The role of team development in organizational effectiveness: A critical review. *Organisational Behaviour and Human Decision Processes*, 41, 330-351

Wong, C. S., & Campion, M. A. (1991). Development and test of a task level model of motivational job design. *Journal of Applied Psychology*, 76, 825-837

Wright, D. B. (2003). Making friends with your data: Improving how statistics are conducted and reported. *British Journal of Educational Psychology*, 73, 123-136

Wright, T. A., & Cropanzano, R. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology*, 5, 84-94

Wright, T. A., Bonnett, D. G., & Sweeney, D. A. (1993). Mental health and work performance: results of a longitudinal field study. *Journal of Occupational and Organisational Psychology*, 66, 277-284

Wright, T. A., & Bonett, D. G. (1997). The role of pleasantness and action-based well-being in performance prediction. *Journal of Occupational Health Psychology*, 2, 212-219

Xie, J. L., & Schauboreck, J. (2002). Job demands and social support on stress: A longitudinal study. Poster presented at the 17th Annual Conference of the Society for Industrial and Organisational Psychology (April, 2002). Toronto, Canada

Yamminaro, F. J., & Naughton, T. J. (1988). Time spent communicating: A multiple levels of analysis approach. *Human Relations*, 41, 655-676

Yousef, D. A. (1998). Organizational commitment: a mediator of the relationships of leadership behaviour with job satisfaction and performance in a non-western country. *Journal of Managerial Psychology*, 15, 6-28.

Yukl, G. A. (1994). *Leadership in Organisations*. Engelwood Cliffs, NJ: Prentice-Hall

Zaccaro, S. J., & Dobbins, G. H. (1989). Contrasting group and organisational commitment: Evidence for differences among multilevel attachments. *Journal of Organisational Behaviour*, 10, 267-273

Zajonc, R. B. (1965). Social facilitation. *Science*, 149, 269-274

Zander, A., Stotland, E., & Wolfe, D. (1960). Unity of group, identification with group, and self esteem of members. *Journal of Personality*, 28, 463-478

Zander, A., & Quinn, R. (1962). The social environment and mental health: a review of past research at the institute for social research. *Journal of Social Issues*, 18, 48-66

Zellars, K. L., & Perrewe, P. L. (2001). Affective personality and the content of emotional social support: Coping in organisations. *Journal of Applied Psychology*, 86, 459-467

Zeffane, R. (1994). Patterns of organisational commitment and perceived management style: a comparison of public and private sector employees. *Human Relations*, 47, 977-1010

Zimmerman, S., & Applegate, J. L. (1992). Person-centred comforting in the hospice interdisciplinary team. *Communication research*, 19, 240-263