

Sense of Belonging in the Workplace as a Predictor of
Mental and Physical Health and Intention to Leave Among
University Employees

Stuart I. Oldfield

B.App.Sci., Grad. Dip. (Applied Psych.) (Ballarat)

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School of Behavioural and Social Sciences and Humanities

University of Ballarat

PO Box 663

University Drive, Mount Helen

Ballarat, Victoria 3353

Victoria

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STATEMENT OF AUTHORSHIP

Except where explicit reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma. No other person's work has been relied upon or used without due acknowledgement in the main text and reference list of the thesis.

Signature: J. J. Oldfield

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Abstract

It has been recognised that sense of belonging and related concepts are strongly associated with mental and physical health. Research to date, however, has focused on sense of belonging to the community in which one lives. The present research extended the work on sense of belonging by assessing the relationship between sense of belonging in the workplace and the mental and physical health of staff employed in a regional university. It was hypothesised that there would be a significant negative relationship between sense of belonging and stress. It was also hypothesised that those staff who indicated a higher sense of belonging to their work team and organisation would be less likely to leave their employment and have fewer mental and physical health problems. A sample of 46 male and 49 female staff members completed sense of belonging and stress questionnaires. The research found that females showed a higher sense of belonging to both the work team and the organisation than males. Also, employees who showed a lower sense of belonging to the University had stronger intentions of leaving their employment. Further, workers who indicated a higher sense of belonging to the work team exhibited lower burnout, lower global stress, and better general health. Results suggested that the mental health of workers can be improved by encouraging a sense of belonging to the immediate work team and that retention of workers may be increased by facilitating a sense of belonging to the organisation.

1. Introduction

Occupational stress has been identified as a significant problem that impacts upon the mental and physical health of workers (Calnan, Wainwright, & Almond, 2000; Dollard & Metzler, 1999; Dollard, Winefield, & Winefield, 1999; Johnson & Hall, 1988; Kinnie, 2002; Morris & Long, 2002; Stanton, 2000; Winefield, Gillespie, Stough, Dua, & Hapuarachchi, 2002). A key predictor of mental health that has been identified relatively recently is sense of belonging (Hagerty, Lynch-Sauer, Patusky, Bowsema, & Collier, 1992). Initial research has examined the relationship between sense of belonging and mental health in student and community samples (Hagerty et al., 1992; Hagerty, Lynch-Sauer, Patusky, & Bowsema 1993; Hagerty & Patusky, 1995; Hagerty, Williams, Coyne, & Early, 1996; Hagerty & Williams, 1999; Hagerty, Williams, & Oe, 2002; McLaren, Jude, Hopes, & Sherritt, 2001; Sargent, Williams, & Hagerty, 2002), with results clearly indicating the importance of having a sense of belonging to one's community. Sense of belonging, however, has rarely been examined in other contexts, such as the workplace.

1.1 The Need to Belong

Maslow (1954) identified belonging as a basic human need, ranking it third in his hierarchy. He postulated that if both the physiological and the safety needs of a person were gratified, the love, affection, and belongingness needs would emerge. Maslow proposed that an emotional void would exist for absent friends, wife or children, and that one would hunger for close relations. He proposed that humans would strive with great intensity to achieve this goal, and that their drive to achieve these social goals would supersede other basic needs, such as hunger. Since Maslow's (1954) initial publication, other researchers have also described belonging as a basic human need (House, 1981; Maslow, 1968; Thoitis, 1982). This need has

been regarded as necessary for psychological well-being and self actualisation (Chubb & Fertman, 1992).

Humans are primarily social animals who favour group living and meaningful contact with others (Morikawa, Hanley, & Orbell, 2002) Baumeister and Leary (1995) purported that human beings possess an innate, pervasive drive to form and maintain lasting, positive interpersonal relationships. This innate quality in the human race assists in both survival and reproduction and thus has fulfilled an evolutionary function. A lack of human interaction may impact upon an individual's formation of a personal identity and can affect every aspect of their lives, from their personal development through to social relationships, mental health and sense of belonging (Anant, 1967; Hagerty et al., 1992).

Sense of belonging as a unique concept has not been thoroughly investigated by researchers, either in the qualitative or quantitative domains (Coyne & Downey, 1991). Rather, prior research has incorporated sense of belonging into a multitude of categories, including affiliation (Hagerty et al., 1993), attachment and alienation (Flett, Blankstein, Hicken, & Watson, 1995), belongingness (Anant, 1967), connectedness (Lee & Robins, 1998), hopelessness (Gangster & Victor, 1988), identification (Flett et al., 1995), loneliness (Russell, Cutrona, Rose, & Yurko, 1984), and social support (Gangster & Victor, 1988).

1.1.1 Interpersonal Relatedness

Interpersonal relatedness has been recognised as vital to an individual's physical and psychological well-being (Bennett & Murphy, 1997; Cohen, Kessler, & Gordon, 1995; Coyne & Downey, 1991; Hagerty et al., 1992; Hagerty & Patusky, 1995; Sheldon & Battencourt, 2002; Stein & Miller, 1993; Toates, 1995). Relatedness encompasses all aspects of interpersonal interactions (Hagerty et al., 1993) and refers to the experiences of an individual

in all types of relationships, regardless of function. Interpersonal interactions are vital to growth and development and enable individuals to survive (Hagerty & Patusky, 1995). A key factor in interpersonal relationships is an individual's social support network (Hagerty et al., 1992).

Social support is a concept incorporated within the broader concept of relatedness (Hagerty et al., 1992, 1993), and has been defined as the structural characteristics of a social network and perceived availability of resources (Billings & Moos, 1984; Brown & Harris, 1978; Coyne & Downey, 1991; Gangster & Victor, 1988). Many researchers have found that social support can assist in the reduction of negative outcomes when different life conditions such as anxiety, depression, stress and illness, are experienced (Bennett & Murphy, 1997; Chipuer, 2001; Coyne & Downey, 1991; Flett et al., 1995; Folkman & Lazarus, 1980; Rice, 1999; Thoitis, 1982). Further, Dooley (1985) hypothesised that this occurs either as a direct effect or as a buffering effect during stress conditions. Deficits in social relationships and the contexts of these deficits differ between individuals (Weiss, 1974) and result in loneliness.

Loneliness has been described as being inherent in the developmental tasks of peer interaction and consensual validation while satisfying the need for belonging (Gat, 2002; Nezelek, Richardson, Green, & Schatten-Jones, 2002). Loneliness in adults may occur due to the lack of an adequate dyadic or social relationship to fulfil needs of security and belongingness (Nezelek et al., 2002).

Weiss (1974) proposed that there were two types of loneliness, emotional and social, each with differing causes, expressions and remedies. Emotional loneliness is caused by the absence of an attachment relationship, such as a parent or a close friend, from whom the individual obtains a sense of belonging and intimacy. Social loneliness reflects one's lack of

attachment to a larger social network, including kinship groups, peer groups, or other social groups that provide the individual with a sense of social integration (Chipuer & Pretty, 2000). Thus, the deficits of social loneliness operate within the context of a group, and do not depend on any one individual within the group.

1.2 Sense of Belonging

The concept of belonging, as introduced by Maslow (1954), was extended by Anant (1966, 1967, 1969). Anant's studies focused upon interpersonal interactions, and from these studies he identified a factor that significantly contributed to the effectiveness of an individual's support network. Anant named the factor 'belonging' and proposed that belongingness was vital to the development and growth of an individual. Further, Anant proposed that there was an inverse relationship between sense of belonging and anxiety but was unsure if dependence or belonging was being measured. Further, Anant's research did not separate sense of belonging from social support. The instrument used to measure belonging had no clear conceptual underpinnings, and information on item content, validity or reliability was not reported.

Despite the lack of an instrument to measure belonging, the concept of sense of belonging was evident in the literature. For example, a lack of sense of belonging was identified as a common denominator in the mental ill-health of battle-stricken Israeli soldiers (Dasberg, 1976). These soldiers described feelings of being cut off and uprooted, abandoned, rejected and psychologically severed. Other research has focussed on solitary child survivors of the Holocaust (Kestenberg & Kestenberg, 1988). These children felt that they did not belong anywhere in terms of country, social group, or age. Kestenberg and Kestenberg noted that as a normal child grows, they develop a sense of belonging not only to the family, but also to the

community, the nation, and a cultural group. These children of the Holocaust lacked the opportunity to develop this sense.

It was not until 1992 that sense of belonging was hypothesised to be a vital concept within the mental health field. At this time, Hagerty et al. (1992) investigated sense of belonging using a concept-analysis strategy that evolved from a series of inductive and deductive strategies, including literature review, interviews, focus groups and model case, antecedents, consequences, related case, borderline case, contrary case, invented case, and empirical referents). From these analyses Hagerty et al. (1992, p. 173) defined sense of belonging as “the experience of personal involvement in a system or environment so that persons feel themselves to be an integral part of that system or environment”. They proposed that clients in the field of psychiatric nursing could be assessed for the extent to which they show sense of belonging with respect to individuals, groups, organisations, environments, and spiritual dimensions. Further, Hagerty et al. believed that deficits in sense of belonging could be identified and subsequent interventions implemented and tested. Their study developed the conceptual foundations for sense of belonging as an important mental health phenomenon.

Building on their 1992 study, Hagerty et al. (1993) investigated the concepts of connectedness and disconnectedness. Focus groups with people who had no psychiatric treatment history were conducted, to discuss their perceptions of connectedness and disconnectedness with self, others, society and environments. Four states of relatedness were proposed. The first state, connectedness, referred to when a person was actively involved with another person, object group or environment, and that involvement promoted a sense of comfort, well being and anxiety-reduction. The second state, disconnectedness, was obtained when a person was not actively involved with another person, object, group or environment,

and that lack of involvement was associated with discomfort, anxiety and a lack of well being. The third state, parallelism, referred to when a person's lack of involvement with another person, object, group or environment was experienced as being comfortable and as promoting a sense of well-being. Finally, enmeshment was shown when people were involved with others, objects, groups, or environments and this involvement was coupled with discomfort and anxiety.

Four major processes or social competencies involved in establishing relatedness were identified. First, sense of belonging referred to personal involvement in a system or environment so that persons feel themselves to be an integral part of the system or environment. Second, reciprocity indicated the individual's perception of an equitable, alternating, interchange with another person, object, group or environment that is accompanied by a sense of complementarity. Third, mutuality referred to the experience of real or shared commonalities of visions, goals, sentiments, or characteristics, including shared acceptance of differences that validate the person's world-view. Finally, synchrony described the person's experience of congruence with his or her internal rhythms and external interaction with persons, objects, groups or environments. They proposed that the extent to which each competency was evident in any particular relationship with other people, groups, objects or environments would influence and determine the person's state of relatedness.

Moreover, a person will experience connectedness with respect to a particular relationship when that person experiences high levels of sense of belonging, reciprocity, mutuality and synchrony. Hagerty et al. (1993) viewed their research into relatedness to be pertinent to the implementation of the nurse-client relationship and provided a unique basis for assessing and intervening with clients. They identified that future research should investigate if the client

had a sense of belonging with any person, object or environment and how he or she could be assisted with that development.

Hagerty and colleagues (1992, 1993, 1995, 1996, 1999, 2002) advanced the concept of sense of belonging as a unique element of interpersonal relatedness, and as noted previously, defined it as the experience of personal involvement in a system or environment so that the person feels a part of the system or environment (Hagerty et al., 1992). From their work Hagerty et al. (1993) identified two critical attributes of sense of belonging: (a) valued involvement, or the experience of being valued and needed, and (b) fit, the person's perception that his or her characteristics articulate with or complement the system or environment.

It was not until 1995 that an instrument with sound empirical underpinnings (reliability and validity) was developed to measure sense of belonging (Hagerty & Patusky, 1995). The Sense of Belonging Instrument's (SOBI) constructs were derived from the psychological, sociological, physical and spiritual perspectives. There were two important dimensions identified by Hagerty and colleagues. The antecedents (SOBI-A), or precursors, to sense of belonging were identified as "energy" for involvement, potential and desire for meaningful involvement, and potential for shared or complementary characteristics ("it is important to me that I am valued or accepted by others"). The second factor was the psychological factor (SOBI-P), which reflected the individual's experience of being valued and of fitting in or belonging ("If I died tomorrow, very few people would come to my funeral"). Items were generated from the literature, clinical experiences, and statements made by persons who had participated in earlier focus groups. A panel of seven experts who had research and clinical expertise with concepts related to sense of belonging assessed the content validity of the

instrument. This was calculated by determining the proportion of judges that rated the item as quite or very relevant. The content validity for the entire instrument was .83.

Several samples were involved in the initial psychometric testing of the instrument. The first sample consisted of 379 students from a local community college using the 49-item SOBI. Respondents were aged 18 to 72 years (mean = 26 years), with females representing 59.1% of the sample, and 34% of the sample with a history of some type of psychiatric treatment. The second sample consisted of 31 respondents in treatment for major depression, meeting the DSM-111R (American Psychiatric Association, 1987) criteria for major depression. Respondents were 21 to 78 years of age (mean = 38.8 years, with 64.5% being females). The third sample consisted of 37 Roman Catholic nuns. The respondents were aged 44.3 years of age to 84 years of age (mean = 73.8 years). All respondents were invited to be part of an 8-week re-test study.

Hagerty and Patusky (1995) confirmed that their instrument contained the two dimensions of sense of belonging that were originally proposed. The psychological state of sense of belonging consisted of 18 items, while the antecedents of sense of belonging consisted of 15 items. The interscale correlation was .45 for the student group. The construct validity of the instrument was supported by factor analysis and contrasted group analysis. Hagerty et al. noted that additional research was required in various group settings and the relationship between sense of belonging and a broad range of health problems needed to be examined.

Hagerty et al. (1996) examined the relationship between sense of belonging, personal characteristics and indicators of social and psychological functioning. Their participants were 379 college students, aged between 18 to 72 years old. Sense of belonging was examined in

relation to social support, conflict, involvement in community activities, attendance at religious services, loneliness, depression, anxiety, history of psychiatric treatment, and suicidality. It was evident from this research that sense of belonging was closely related to indicators of both social and psychological functioning. Further, these relationships tended to be stronger for females than males.

Research into the effects of the interpersonal phenomena of sense of belonging, social support, loneliness, and conflict on depression was investigated by Hagerty and Williams (1999). Participants consisted of clients with major depressive disorders and students in a midwestern community college. Their findings supported earlier research (Hagerty et al., 1996) and further demonstrated that a low sense of belonging was strongly associated with higher levels of depression. Further, they evaluated the predictive value of sense of belonging for depression in the context of other interpersonal phenomenon. Results indicated that 64% of the variance of depression could be explained by variables within their proposed model. Further, while the type of participant had the most direct effect on depression, psychological sense of belonging and loneliness were also significant predictors. Results indicated that sense of belonging was a better predictor of depression than perceived social support. Social support did not have a direct link to depression but it was believed that social support mediated illness outcomes indirectly under stressful conditions. Sense of belonging appeared to be a more important concept in relation to an individual's depression, even when perceived social supports were measured. Sense of belonging was also found to be a significant predictor of stress. Therefore, sense of belonging appeared a critical factor in psychological well-being.

In more recent research McLaren et al. (2001) examined whether rural–urban differences existed in sense of belonging, stress and depression. A random community sample of

Australians was divided into 4 groups; urban ($n = 106$), regional city ($n = 119$), regional town ($n = 82$), and rural ($n = 90$). Consistent with the results from the American studies, analyses indicated that sense of belonging was a significant predictor of stress and depression. Further, place of residence made an additional contribution to the prediction of depression, with less populated areas (more rural) reporting less symptomology, over and above sense of belonging.

Recently, Bay, Hagerty, Williams, Kirsch, and Gillespie (2002) found that sense of belonging had a negative relationship with depression in participants ($n = 75$) with mild to moderately brain injury. All participants were tested within two years of the date of injury and were living in the community. Bay et al. concluded that post injury chronic stress and sense of belonging were strong predictors of post injury depression.

In summary, although the concept of belonging was recognised approximately 50 years ago, it is only recently that a reliable and valid instrument has been available to assess the construct. Since the development of Hagerty and Patusky's (1995) Sense of Belonging Instrument, researchers have consistently demonstrated that sense of belonging to the community in which one resides is important to one's mental health.

While research has begun to demonstrate linkages between sense of belonging and psychological functioning, the processes by which an individual develops a sense of belonging had not been examined until recently. Hagerty, Williams, and Oe (2002) purport that early childhood relationships with others, particularly caregivers, are influential in how young persons perceive themselves and behave in relation to others. This research identified that there were significant positive antecedents for the dimension of sense of belonging, including perceived caring by both mother and father while growing up, participation in high

school athletic activity, and parents' marriage remaining intact. Further, factors related to a lessened sense of belonging included perceived overprotection of father, high school pregnancy, family financial problems while growing up, incest and homosexuality. It is clear that further research is required to explain the development of sense of belonging.

1.2.1 Sense of Belonging and Gender

Research indicates that there are gender differences in sense of belonging, with females reporting higher levels of belonging than males (Belle, 1991; Clancy & Dollinger, 1993; Hagerty et al., 1992; Lang-Takac & Osterweil, 1992; Martin & Ruble, 1997). It has also been found that the relationships between sense of belonging and indicators of both social and psychological functioning are stronger for women than men (Hagerty et al., 1996). Other research has shown that female college students low in sense of belonging experienced more stress, anxiety and depression than male students equally low in sense of belonging (Mallinckrodt & Leong, 1992).

Hagerty et al. (1996) attributed some of the gender differences in reported sense of belonging to a lack of support from a spouse. further, negative interactions in general had more of an effect upon females' sense of belonging than males. An explanation for these differences was that women tend to define themselves by their interpersonal relationships and place more importance upon relationships with other individuals in order to validate their sense of self.

Clancy and Dollinger (1993) also suggested that females tend to define themselves in terms of relationships with others, in particular social connectedness. Females also tend to report interpersonal domains as being more important to their general well-being, thus relying more upon social supports during times of mental anguish (Clancy & Dollinger, 1993). In

contrast, males define themselves in terms of separateness and rely less upon social support in times of stress or crisis. Lang-Takac and Osterweil (1992) and Martin and Ruble (1997) supported these findings, showing that females desire higher emotional intimacy compared to their male counterparts. Other researchers (Gangster & Victor, 1988; Weist, Freedman, Paskewitz, Proescher, & Flannery, 1995) found that females are more likely to benefit directly from social support and related constructs and are more likely to receive support from different sources than males. Females who have a low sense of belonging have been found to have an increased vulnerability to physiological and psychological disorders, such as depression and anxiety (Belle, 1991; Lang-Takac & Osterweil, 1992).

It is evident, therefore, that a link exists between sense of belonging and gender. Females are more likely than males to establish a sense of belonging to their community. Further, females who report a stronger sense of belonging to the community are less likely to suffer physical or mental ill health compared to females who report a lessened sense of belonging to the community.

1.2.2 Summary

Sense of belonging has been recognised as a highly relevant factor in determining mental health. Research has linked sense of belonging to stress (Hagerty et al., 1992, 1993, 1996; Hagerty & Patusky, 1995; Hagerty & Williams, 1999), depression (Herbert, 1997; McLaren et al., 2001; Rice, 1999; Toates, 1995; Sargent et al., 2002; Wade, Monroe, & Michelson, 1993), suicide (Greenberg, 1984; Rice 1999), anxiety disorders (Herbert, 1997; Rice, 1999; Wade, Monroe, & Michelson 1993), and self-esteem (Lee & Robbins, 1998). Despite Hagerty and colleagues proposing that sense of belonging can occur in relation to a variety of systems and environments, researchers to date have focussed their attention almost exclusively on sense of

belonging to the community in which one resides. Little research has examined sense of belonging in relation to other environments or systems, including the school environment and the workplace.

1.2.3 Sense of Belonging and Other Environments

Among the few studies that have investigated sense of belonging in relation to systems and environments other than the community in which one lives, House and Howard (2002) found that a sense of belonging to the family and school were major protective factors against health risk behaviours in young people. As a result, schools are developing strategies to identify those students whose sense of belonging is low, and to make special efforts to ensure their inclusion by creating opportunities to belong and enhancing interpersonal skills (House & Howard, 2002). Bohannon (2002) has also examined the importance of a young person's sense of attachment or belonging in their social environments, and found that a sense of belonging to peers underpins a young person's emotional wellbeing.

Little research has investigated sense of belonging in relation to the workplace. For example, Hagerty, Williams, Yousha, et al. (2002) showed that the experience of sense of belonging and loneliness was related to Navy recruits' perceptions of themselves in relation to others. Their study consisted of 443 recruits, of whom 200 exhibited depressive symptoms. These were matched with 243 participants lacking depressive symptoms. The study showed that depressed recruits who were more likely to leave the Navy and not complete training displayed a lower sense of belonging, more emotion-orientated coping, and less task-oriented coping.

Winter-Collins and McDaniel (2000) investigated the relationship between sense of belonging and job satisfaction in newly graduated nurses. Results suggested that participants

with a greater sense of belonging, related to co-worker support, had fewer intentions of leaving their occupation.

Though not addressing sense of belonging specifically, research has documented other aspects of human relatedness within the workplace. For example, Maxwell (2001) noted that social loneliness could occur when individuals are promoted in the work environment, since promotion can result in a change of peers, lack of acceptance by others and, ultimately, can cause social isolation. Other research has documented the importance of social support in the workplace. For example, research investigating stress in human services workers indicated that ideal organisations were those that fostered social relationships between staff (Hatton et al., 1999). A recent study examined the relationship between social support and sleep patterns in Swedish workers ($n = 5720$) (Åkerstedt et al., 2002). Low social support at work was associated with difficulties awakening in the mornings. Other research has shown that social support at work is associated with well-being (van Veldhoven, de Jonge, Broersen, Kompier, & Meijman, 2002), mental health (Olstad, Sexton, & Søgaaard, 2001) and burnout (Gil-Monte, Valcarcel, & Zornoza, 1993).

In summary, a paucity of research has examined sense of belonging in contexts other than the general community. The limited evidence available suggests that sense of belonging may predict occupational stress. This proposition, however, has yet to be empirically tested.

1.3 Occupational Stress

Occupational stress has received much attention in the literature. Reasons for this interest have included the cost of work-related stress to the individual, the work organisation, and society as a whole. For example, occupational stress has been linked to cardiovascular disease (Melamed, Kushnir, & Shirom, 1992; Spector, 2002), alcohol use (Coffey & Coleman, 2001;

Delaney, Grube, Greiner, Fisher, & Ragland, 2002), distress (Calnan et al., 2000) and physical (Mak & Mueller, 2001) and mental ill-health (Booth & Lloyd, 2000; Calnan et al., 2000; Hardy, Woods, & Wall, 2003; Morris & Long, 2002; O'Connor, White, O'Connor, & Bundred, 2000). Further, stress has been seen to impact negatively on the worker's family (Burbeck, Coomber, Robinson, & Todd, 2002; Coomber et al., 2002; Kahn, Parsons, Pizzo, Newburger, & Homer, 2001; Vagg, Spielberger, & Wasala, 2002; Wong, Chen, Yu, Lin, & Cooper, 2002).

The work organisation is also negatively affected by stress. For example, researchers have demonstrated a relationship between stress at work and absenteeism (Hardy et al., 2003; Piirainen, Räsänen, & Kivimäki, 2003; Pousette & Hanse, 2002; Sui, 2002), work-related accidents (Cartwright, Cooper, & Barron, 1996; Rundmo, 1995; Trimpop, Kirkcaldy, Athanasou, & Cooper, 2000), and termination of employment (Blix, Cruise, Mitchell, & Blix, 1994; Hromco, Lyons, & Nikkel, 1995; Parker & Kulik, 1995; Rahim & Psenicka, 1996). Stressed employees also tend to be less productive than other employees (Caldwell & Ihrke, 1994; Kompier & Di Martino, 1995).

The financial costs of occupational stress have also encouraged empirical research in to the phenomenon. Policies have been developed which focus on the rights of stressed employees to sue their employers for negligence in the workplace (Kendall-Sage, 1994; LaDou, Mulryan, & McCarthy, 1980; Shortt, 1995). In addition, there has been a substantial increase in the number of workers' compensation claims being lodged (Dimond, 2002; Earnshaw & Cooper, 1991; Haines, Williams, & Woo, 1996). For example, the California Workers' Compensation Institute reported a 700% increase in mental stress claims between 1979 and 1988 (Earnshaw & Cooper, 1991). A substantial rise in workers' compensation

claims for stress has also been noted in Tasmania (Haines et al., 1996). Thus, employers are being held legally responsible for the psychological as well as the physical well-being of their employees (Howard, 1995).

It is evident, therefore, that a number of factors are responsible for the large volume of research that has focussed on occupational stress. Within the area of occupational stress, several theories have been proposed.

1.3.1 Theories of Occupational Stress

Stress can be defined as the emotional and physiological reactions to stressors (Kinnie, 2002; Maslach, Jackson, & Leiter, 1996). A stressor is a demand, situation or circumstance that disrupts a person's equilibrium and initiates the stress response of autonomic arousal (Kinnie, 2002). Prolonged stress (strain) is associated with chronic anxiety, illness and a variety of other emotional problems (Caughey, 1996). Historically, two key theoretical models have been influential in stress research (Sargent & Terry, 2000): Karasek's (1979) job demands-control model and Cohen and Wills' (1995) stress-buffering model.

The job demands-control model (Karasek, 1979) postulates that the work environment consists of two elements, job demands and work control. These elements are believed to impact on an individual's level of well-being and the quality of his or her working life. Psychological strain is believed to be the result of the joint or interactive effects of the two variables. Thus the model predicts that job strain results from the interaction of job demands and work control (Dollard, Winefield, Winefield, & de Jonge, 2000). The main tenet of the job demands-control model is that high levels of work control protect the employee from the harmful effects of a demanding job (Sargent & Terry, 2000). Further, a work context that is low in job demand and control is considered to be 'passive' where, over time, employees may

become unable to make decisions, solve difficulties, and rise to work challenges. The model further proposes that people with high levels of control and minimal work demands will experience 'low strain' (Sargent & Terry, 2000).

Researchers who have reviewed the job demands-control model (de-Jonge & Kompier, 1997; Kristensen, 1995) have found the framework appropriate for further empirical investigation. Most researchers have found empirical support for the job demands-control model (Dollard & Winefield, 1998; Karasek, 1981; Landsbergis, Schnall, Deitz, Friedman, & Picketing, 1992). Sargent and Terry (2000) examined the moderating role of social support in Karasek's job strain model. They focused on the extent to which different sources of social support, work overload and task control influence job satisfaction, depersonalisation, and supervisor assessment of work performance. Results found that high levels of supervisor support mediated the negative affects of high strain jobs on levels of job satisfaction and reduced reported levels of depersonalisation. High levels of non-work support and co-worker support also mediated the negative affects of high strain jobs on levels of work performance. Dollard, Winefield, Winefield and de Jonge (2000) examined the main and interactive effects of the key dimensions of the demand-control-support model in predicting levels of strain and feelings of productivity and competency in human service workers. They found that jobs combining high demands, low control and low support produced the lowest levels of satisfaction in workers. Jobs combining high demands and high control produced the highest levels of personal accomplishment. Meijman, Ulenbelt, Lumens, and Herber's (1996) study appears to be an exception, with their results failing to support the model.

The stress-buffering model (Cohen & Wills, 1985) considers the relationship among levels of stress, coping resources and adjustment. The model proposes that the resources that

people have access to when facing stressful life events buffer or protect them from the negative effects of stress. The effects of a range of different coping resources have been considered by researchers such as physical, intellectual, technical and social support. In particular, access to high levels of social support has been shown to buffer the negative effects of stress (Sargent & Terry, 2000). Social support appears to assist with the reduction of stress by helping the person to redefine the problem, or by providing a solution to the problem (Cohen & Wills, 1985). Hyman, Gold, and Cott (2003) investigated the social support as a buffer against development of posttraumatic stress disorder (PTSD). Their sample consisted of 172 adult females who were victims of child sexual abuse. Results indicated that social support significantly buffered PTSD development. Further, self-esteem support was identified as the most important variable in preventing PTSD development.

Winefield, Gillespie, Stough, Dua and Hapuararchchi (2002) examined the role of Employee Assistance Programs in reducing occupational stress among Australian university employees. They found that 82% of employees reported that the Employee Assistance Programs to be helpful in supporting them through stressful times. Employees were assisted in their ability to manage their stress through education, training, personal counselling and coaching.

It is evident that consensus on a model of stress does not exist. It is clear, however, that the outcomes of occupational stress impact on workers, their families and the work organisation. Within the occupational stress literature, many outcome variables have been examined, including general health, burnout, global stress and intentions to leave the organisation. These will now be examined in detail.

1.3.2 General Health

The general health of workers has been assessed often in studies investigating occupational stress (Booth & Lloyd, 2000; Burbeck et al., 2002; Iwi, Watson, Barber, Kimber, & Sharman, 1998; Knussen & Niven, 1999; McElfatrick et al., 2000; Stanfield, Fuhrer, Shipley, & Marmot, 1999). One of the most frequently used scales to measure general health in such research is the General Health Questionnaire (GHQ; Goldberg & Hillier, 1979). The GHQ assesses the inability of one to carry out normal functions and the presence of new distressing phenomena, by examining the number of occasions that the individual has experienced medical complaints and health in general over the previous weeks. The scale gives an indication of current physical and mental general health.

Research using the GHQ has focused on two issues. First, researchers have utilised the GHQ to assess the prevalence of distress and pathology in samples of workers. For example, Burbeck et al. (2002) had 371 doctors complete the GHQ. Results indicated that 44.4% of the sample had GHQ-12 scores over the threshold for distress, indicating “caseness”. Another survey of doctors indicated that 29% of the sample was suffering distress, as indicated by scores on the GHQ-12 (Coomber et al., 2002). Booth and Lloyd (2000) examined farmers and found that 35% of the sample was suffering distress. Welfare employees facing organisational changes were found to be under more work-related pressure and their health markedly poorer, as measured by the GHQ, compared to welfare workers in more stable organisations (Iwi et al., 1998)

The second area of research has focused on examining predictors of GHQ scores among workers. Burbeck et al. (2002), for example, reported that being overworked, and having work stress impact on their families predicted “caseness” on the GHQ for a sample of doctors.

GHQ scores in Coomber et al.'s (2002) study of doctors were predicted by a lack of recognition by others, too much responsibility, effects of work stress on family life, having to keep up to date with new information and techniques, and having to make decisions alone. Booth and Lloyd (2000) found that higher GHQ scores were indicative of elevated levels of anxiety and depression in the farming community. Work setting, professional role, gender and patient care ratio were found to be indicators of higher GHQ scores in general nurses (Cocco, Gatti, & de Mendonca Lima, 2003).

In summary, it is evident that occupational stress impacts upon the general health of workers. It is also clear that a number of work-related factors predict the general health of workers. Overall, research indicates that general health is an important variable to be considered when investigating occupational stress.

1.3.3 Burnout

The concept of worker burnout in regards to one's occupation has been intensively researched (Abu-Hilal & El-Emadi, 2000; Butterworth, Carson, Jeacock, White, & Clements, 1999; He, Zhao, & Archbold, 2002; Lloyd, King, & Chenoweth, 2002, McElfatrick et al., 2000; Taris, Schreurs, & Van Iersel-Van Silfhout, 2001). An instrument for measuring burnout is the Maslach Burnout Inventory (Maslach, 1981). The MBI consists of three elements assessing the participant's emotional exhaustion, expression of depersonalisation, and feelings of personal accomplishment.

The MBI has been utilised to research the factors that contribute to burnout in many occupations. For example, a study of stress and burnout in 270 nursing home caregivers and 280 geriatric ward hospital caregivers (Cocco et al., 2003) found that the hospital work-setting, professional role, female gender and patient/carer ratio were significant indicators of

high scores on emotional exhaustion. General work setting and disability were predictors of high scores on depersonalisation. Kalliath and Morris (2002) assessed differential levels of job satisfaction on burnout among 197 nurses. Job satisfaction was found to have a significant negative effect on emotional exhaustion. A study on 169 physical therapists and 138 occupational therapists in relation to the prevalence of burnout and work-related factors was conducted by Balogun, Titiloye, Balogun, Oyeyemi, and Katz (2002). Physical therapists and occupational therapists scored higher on all three subscales of the MBI than the reported norms, and the work environment was identified as the possible cause of the high levels of burnout. A survey of 415 white-collar workers and 298 blue-collar workers investigated the sequential processes of the three dimensions of burnout (Toppinen-Tanner, Kalmo, & Mutenen, 2002). Results indicated that the symptoms of emotional exhaustion were persistent over time and there were no differences between the two occupational groups in the process of burnout.

In summary, it is clear that burnout is prevalent in a number of occupations. Burnout and work-related factors significantly impact upon one's physical and mental health. These stressors include variables related to the individual, the work environment, including organisational changes, and social pressures, linked to friends and family.

1.3.4 Global Stress

It is evident that stress experienced at work impacts on individuals in a range of ways, from the experience of occupational stress, to physical ill-health and burnout. Less frequently recognised and assessed, however, is that work stress impacts on the employee outside of the work environment, and may also affect the spouse and family (Mauno & Kinnunen, 1999; Westman, 2001).

The effects of work on family life have been noted in a number of studies (e.g., Burbeck et al., 2002; Coomber et al., 2002; Kahn et al., 2001; Vagg et al., 2002; Wong et al., 2002). For example, a sample of doctors indicated that the effects of hours of work and stress on their personal and family life were key stressors (Coomber et al., 2002). Similarly, a study investigating occupational stress in consultants working in accident and emergency medicine reported that long work hours and stress impacted negatively on their family life (Burbeck et al., 2002). Female employees of a large industrial company reported experiencing more severe stress when there was conflict between work requirements and family life (Vagg et al., 2002). Mauno and Kinnunen (1999) studied the relationship between work stress and marital satisfaction in a sample of workers. Results indicated that job stressors impacted negatively upon marital satisfaction, through job-related exhaustion and psychosomatic illness for both men and women. Finally, there is evidence that work pressure impacts negatively on the well-being of adolescent offspring of workers (Crouter, Bumpus, Maguire, & McHale, 1999).

It is evident, therefore, that the impact of work stress extends beyond the worker and their workplace. Assessing global stress, therefore, appears to be important. Cohen, Kamarck, and Mermelstein (1983) developed a global measure of stress. The Perceived Stress Scale (PSS) assesses a number of contributors to stress, including work, family, and daily hassles, and gives an indication of overall stress in one's life. The PSS has been used to assess global stress levels in police officers, correctional officers and ambulance officers (Horwell & McLaren, 2000; McLaren, Gollan, & Horwell, 1998).

In summary, work may impact negatively on one's life outside of the workplace, and these effects should be assessed in studies of occupation. More often than not, however, global stress measures are not included in studies of occupational stress.

1.3.5 Intention to Leave

As noted previously, termination of employment by employees is a significant cost to organisations. There is an abundance of evidence to support that intention to leave is one of the best predictors of voluntary turnover (Hom & Griffeth, 1995; Mueller, Price, Boyer, & Iverson, 1994; Price & Mueller, 1986). The variable of intention to leave is dependant on whether the employees' expectations have been met since they started with the organisation (Vroom, 1964). External constraints, such as the availability of jobs outside the organisation (job opportunity), may restrict or enhance the movement of employees (Price & Mueller, 1986).

Intention to leave may increase following an organisational merger. For example, there is evidence that employees may view an organisational merger as an opportunity to pursue career interests outside their current employment (Iverson & Pullman, 2000). In addition, due to the possibility of receiving a fairly generous redundancy package, the willingness of employees to quit may be heightened. Union membership has been seen to add strength to an employee's position at such a time, and so may reduce intention to leave (Shirom, Ramat, & Kirmeyer, 1988).

1.3.6 Summary

In summary, occupational stress is a significant problem, impacting negatively on individuals, their families, work organisations and society at large. It is evident that a number of variables have been investigated in relation to stress, with general health, burnout, global stress, and intention to leave, being among these.

Inspection of the literature indicates that a range of occupations have been studied, including doctors (Burbeck et al., 2002; Coomber et al., 2002; Kirkcaldy, Trimpop, & Levine,

2002), anaesthetists (Flin, Fletcher, McGeorge, Sutherland, & Pateey, 2003), dentists (Roth, Heo, Varnhagen, Glover, & Major, 2003), veterinary surgeons (Trimpop et al., 2000), off-shore oil riggers (Wong et al., 2002), bus drivers (Carter, Ulfberg, Nyström, & Edling, 2003; Delaney et al., 2002; Vedantham, 2001), teachers (Drake & Hebert, 2002; Mearns & Cain, 2003; Van der Doef & Maes, 2002), air-traffic controllers (Repetti, 1993; Shouksmith & Taylor, 1997), firefighters (Larkin, 2002; Lusa, Hakkanenm, Luukonen, & Viikari-Juntura, 2002; Stacks, 2002), ambulance officers (Horwell & McLaren, 2000; Pisarski, Bohle, & Callan, 2002), police officers (Brown, Fielding, & Grover, 1999; He et al., 2002; McLaren, 1997), nurses (Butterworth et al., 1999; McElpatrick et al., 2000), correctional officers (McLaren et al., 1998), civil servants (Stansfield et al., 1999), and health care workers (Knussen & Niven, 1999). One occupation that has received recent attention is that of academic staff (Gillespie, Walsh, Winefield, Stough, & Dua, 2001; Lease, 1999; Taris et al., 2001; van Emmerik, 2002; Winefield et al., 2002; Winefield & Jarrett, 2001).

1.4 Stress in Academics

Studies of stress in university staff have been conducted in many different countries, including North America (Gmelch, Wilke, & Lovrich, 1986; Blix et al., 1994; Gertrude, 1996; Richards & Kriesshok, 1989), United Kingdom (Abouserie, 1996; Bradley & Eachus, 1995; Daniels & Guppie, 1992; Wilkinson & Joseph, 1995), New Zealand (Dua, 1994) and Australia (Boyd & Wylie, 1994; Winefield, 2000; Winefield & Jarrett, 2001; Winefield et al., 2002). The Higher Education Workplace Stress Survey reported that Australian university staff, particularly academic staff, has a very high rate of occupational stress in comparison to their international counterparts (Winefield et al., 2002). The risk of developing a psychological illness, such as anxiety or depression, in university staff has been suggested as

being as high as 50% (Winefield et al., 2002), compared to the general adult population of 19% (Andrews, Hall, Teeson, & Henderson, 1999).

Sources of stress for university employees that have been identified include conflict between teaching and research (Thoreson, 1996), high workload (Fisher, 1994), lack of recognition (Gmelch et al., 1986; Leung, Siu, & Spector, 2000), organisational practices (Leung et al., 2000; Sharpley, Reynolds, Acosta, & Dua, 1996), relationships at work (Leung et al., 2000; Narayanan, Menon, & Spector, 1999), and home/work interface (Leung et al., 2000; Thompson & Dey, 1998).

A recent national survey of stress in Australian university employees highlights the problem of occupational stress in this setting (Winefield et al., 2002). The survey was conducted in 2000 and consisted of 8732 university staff members from 17 Australian universities. A 25% response rate was noted. Occupational stress was defined as the combination of high levels of psychological strain and low levels of job satisfaction. Results indicated that employees were more stressed compared to a pilot study conducted in 1994. Financial pressures at the organisational level, as well as job insecurity, and teaching and research demands predicted psychological strain. Job satisfaction was predicted by staffing pressure, procedural fairness, trust in head of department and senior management, and higher levels of autonomy. The strongest predictor of staff commitment to the university was trust in senior management.

A number of specific sources of stress were identified in the study (Winefield et al., 2002). Diminishing resources, increased teaching loads and student/staff ratios, pressure to attract external funds, job insecurity, poor management and a lack of recognition and reward were drivers of high levels of stress. Other results indicated that almost one-third of academic

staff reported working more than 55 hours per week and that staff at older universities rated their job satisfaction higher than staff at newer universities. Just over half (52%) of the respondents reported a conflict between work and home. The overall conclusion was that academic staff in Australia was highly stressed.

Researchers have studied the relationships between tenure, rank and occupational stress. For example, rank has been related to perceived stress (Gertrude, 1996; Thorenson, 1996), with full professors scoring lower in occupational stress than associate or assistant professors. Australian research indicated that the most junior and the most senior staff was higher in job satisfaction, organisational commitment and trust in management compared to those at the intermediate levels (Winefield et al., 2002). Tenure has been related to job security (Leung et al., 2000) in a positive way, which in turn is related positively to job satisfaction. It has been suggested that employees who have been at an institution for a long time, and/or who have been promoted, enjoy greater autonomy than those at the intermediate levels (Winefield et al., 2002). Newer employees, and those at entry level, most probably enjoy positive perceptions of employment, and therefore experience less stress and higher levels of job satisfaction (Winefield et al., 2002).

Gertrude (1996) surveyed nearly 300 higher education institutions in the United States and data was collected from 29 064 full time teaching academics. Consistent with previous research, academic rank was identified as a significant predictor of general stress. The direction of that relationship, however, was in contrast to the results cited above, with higher ranked academics experiencing higher stress.

The stress experienced by academics has been shown to impact negatively on their health. For example, Australian research indicated that University staff who experience higher

levels of psychological strain and lower levels of job satisfaction were more likely to have sleeping difficulties, headaches and viral infections (Winefield et al., 2002). Further, stressed staff was more likely to take sick days, which in turn placed more stress upon other university staff (Lease, 1999).

Sargent and Terry (2000) explored the extent to which social support buffered the negative effects of high job strain on adjustment and work performance. Participants were full time clerical staff working in a university, with 91% of the sample being women. There was a 58% response rate, with information being collated in the middle of semester. Results indicated that with high levels of support and control, job demands had a positive impact on satisfaction and work performance. Further, social support and control ameliorated the negative effects of high strain on depersonalisation. The study highlighted the importance of high levels of supervisor support and non-work support for the mental health of workers.

1.4.1 Organisational Merger

The McKinnon-Walker interim report considered amalgamations, site changes and satellite campuses of tertiary institutions in Australia (DEET, 1995). The report established that there were economic benefits to be gained by amalgamations. For universities to make commercial and competitive sense, the merging of university departments and inevitably the universities themselves is a way of the future (Reed, 2002). However, the social or organisational problems that might attend such amalgamations were not given sufficient attention. Regional universities have been particularly vulnerable to mergers due to decreases in government funded operating grants and economic rationalisation.

The effect of a merger on those holding executive posts is that they become less accessible, limit their lines of communication and leave their own people uninformed as to

what is going on in the organisation (Marks & Mirvis, 1986). Crisis management gives the executives the illusion that they are in control. Marks and Mirvis (1986) found that there was a defensive fear associated with the “merger syndrome” and that was a perfectly normal reaction to the uncertainty and stress induced by the merger or alliance.

It is unfortunate that this syndrome also divides and isolates people and produces conflicts between the merging institutions (Marks & Mirvis, 1986). Marks and Mirvis (1986) reported that counselling after a merger takes place can help people at all levels of the organisation cope with the merger syndrome. Counselling enables employees to clarify their own needs and career aspirations.

Marks and Mirvis (1986) believe that the most important contributor to discord is a clash in corporate cultures. Gould, Ebbers, and Clinchy (1999) suggested that the marked differences in organisational cultures, each with their own attendant norms and pattern of work, tended to forge a new organisational identity for the merged or joint enterprise. The use of psychologists was found to help executives manage the merger syndrome by facilitating communication and support throughout the organisation (Marks & Mirvis 1986). Also, mid-level managers, supervisors, clerical and hourly paid personnel need to be prepared for the transition, given a chance to air their fears and hopes, and provided with counselling and social support.

Employees reported that they felt they could cope with the merger when they perceived that their management was handling changes in the organisation effectively (Marks & Mirvis, 1986). Further, the presence of social support also smoothed the transition, such that those who received support from superiors and co-workers reported much less stress and had fewer suspicions about management’s motives and intentions. It has been noted in the merger and

amalgamation literature that, following a corporate merger, both voluntary and involuntary staff turnover tends to increase. Such voluntary staff turnover may result from employees not feeling a sense of belonging to the new organisation. This proposition, however, has not been tested.

1.4.2 Union Membership

The extent to which being a member of a union is beneficial to workers is debatable (Pfeffer & Davis-Blake, 1990). Research in the 1970s and 1980s indicated that union members were less satisfied with many areas of their work when compared to nonunion members (Pfeffer & Davis-Blake, 1990). Whether this was a direct result of being in the union was not clear.

Shirom, Ramat, and Kirmeyer (1988) examined the moderating effects of union membership on role-based stress and somatic complaints. Examples of role-based stress were ambiguity, work overload, and inter-role conflict. The sample consisted of three hundred blue-collar workers aged 18 years old and over. Results indicated that those participants who were union members reported higher levels of ambiguity and inter-role conflict. However, higher perceived performance of the union was associated with lower perceived stress and strain among workers.

Winfield et al. (2002) examined differences between university staff who were union and non-union members. Results indicated that non-union members reported higher levels of job satisfaction and commitment to the organisation, and lower levels of psychological strain, than union members. Several reasons for this difference were noted, including the fact that workers with low job security join the union, as do workers generally experiencing problems

at work. Thus, the union may offer support and protection to the more highly stressed workers.

It has been proposed that when confounding variables are held constant, union members are actually more satisfied with their work than nonunion members (Pfeffer & Davis-Blake, 1990). Yet a recent study of injured construction workers showed that union members did not differ in their job satisfaction or work stress compared to nonunion members (Gillen, Baltz, Gassel, Kirsch, & Vaccaro, 2002). Thus, it is unclear as to whether union members benefit psychologically from union membership. There is little doubt, however, that unions do gain a great deal of attention from the media for their causes (Mendelson, Catano, & Kelloway, 2000), and that the main voice represented in the media tends to be that of the unions (Lewig & Dollard, 2001).

It has been proposed, though not empirically supported, that employees may look for social support from their union (Mendelson et al., 2000). Thus, it may be that union membership is associated with an increased sense of belonging to the workplace. This proposition, however, is yet to be tested.

1.4.3 Summary

In summary, it is clear that sense of belonging is a significant predictor of mental health among student and community samples. It is also evident that occupational stress is a substantial problem. One occupation that has been identified as particularly stressful is that of academia, yet it has not featured prominently in research. Australian academics have been shown to be highly stressed and over worked and would appear an appropriate group to establish if sense of belonging is a relevant factor in relation to the experience of occupational stress.

1.5 Present Study

To date, no research exists on the importance of sense of belonging in relation to the individual's affiliation to their immediate work team, nor the work organisation as a whole. The current study proposes to extend previous research by examining university employees' sense of belonging to the University and to their local group or work team as predictors of burnout, general health, global stress, and intentions to leave. The relationships between sense of belonging and gender, union membership, and merged campuses were also explored.

Hypotheses

It was predicted that:

1. Higher levels of sense of belonging to the work team will be associated with better general and mental health and fewer intentions to leave;
2. Higher levels of sense of belonging to the University will be associated with better general and mental health and fewer intentions to leave;
3. Sense of belonging to the work team will be a better predictor of general and mental health and intentions to leave than sense of belonging to the University;
4. There will be an interaction between the two senses of belonging, such that those who show high levels of belonging to the work team and University will report better general and mental health and fewer intentions to leave than those who show a high sense of belonging to only one, or moderate levels of both, who in turn will report better general and mental health and fewer intentions to leave than those who show low levels of belonging to both the team and University.

Method

2.1 Participants

Eight hundred and fifty University employees in academic/teaching or general positions within the University were identified as possible participants (refer to Table 1). The Human Resources branch of the University supplied a list of University employees' names and their schools.

Table 1

Distribution of University Staff by Campus, Employment Type and Employment Classification

Employment Classification	Employment Type	Primary Campus	Secondary Campus	All other Campuses	Total
Academic/Teaching	Ongoing	151	88	38	277
	Contract	28	75	38	141
General- Staff	Ongoing	222	78	37	337
	Contract	55	35	11	101
Total		456	276	124	856

Five hundred participants were randomly and proportionately selected from the total pool of employees on the basis of employment classification, employment type, and campus. Table 2 shows the distribution of the 500 employees selected to receive a questionnaire.

Table 2

Distribution of University Staff Participants in the Present Study

Employment Classification	Employment Type	Primary Campus	Secondary Campus	All other Campuses	Total
Academic/Teaching	Ongoing	88	52	22	162
	Contract	16	44	22	82
General Staff	Ongoing	130	46	22	198
	Contract	32	20	6	58
Total		266	162	72	500

The 500 employees received a questionnaire package in the post via the internal mailing system. A total of 95 questionnaires were returned, which constituted a 19% return rate. The participants consisted of 46 males and 49 females, with a mean age of 43 years ($SD = 10.10$). The youngest participant was 22 years and the oldest 62 years. Over half of the workers (58.9%) were employed in a general capacity, with 41.1% being employed in an academic capacity. Almost three quarters (71.3%) had on-going employment and just over half (52.6%) of the participants were members of the union. Most of the participants (62.1%) were from the primary campus, with 22.1% being from the secondary campus and 15.9% from all other campuses.

Nearly one quarter (24.2%) of the participants had an educational level less than a diploma, 21.1% had a graduate diploma and 4.2% had a doctorate. Just over 25% (27.4%) of the participants had a salary range of \$40 000 - \$40 999, and 2.1% had a salary greater than \$70 000 per year.

Most of the participants were either married or in a defacto relationship (77%), with 14% being single. Participants (43.2%) reported that they were very satisfied in their

current relationship. In regards to the participants' religious beliefs, 52.8% indicated they were atheists, 23.9% were Catholic and 21.7% were Christian.

2.2 Measures

Sociodemographic data pertaining to gender, age, ethnicity, educational level, employment details, religious affiliations, work affiliations and geographical location of employment were gathered. All measures are included in Appendix A.

2.2.1 Sense of Belonging Instrument. The Sense of Belonging Instrument (SOBI) (Hagerty & Patusky, 1995) was modified and administered in order to measure sense of belonging to the organization (University) and sense of belonging to an individual's workgroup (Team). SOBI measures two theoretically distinctive dimensions, involvement and fit (SOBI-P) and antecedents (SOBI-A). The SOBI-P scale measures sense of belonging on the psychological level. Items on this scale measure the importance of involvement and feeling valued or accepted in a system or environment (e.g., "I wonder if there is any place on earth where I really fit in"). The SOBI-A measures the antecedents of sense of belonging; the desire and ability for developing a sense of belonging or fit into a new environment. The antecedents for sense of belonging are energy for involvement, potential and desire for significant involvement and the potential for characteristics that are shared or complementary (e.g., "It is important to me that I am valued or accepted by others").

Participants responded to each question by rating them on a 4-point Likert scale (1 = strongly disagree; 4 = strongly agree). Participants were required to complete the SOBI twice, once for the University and once for the Team. Higher scores on the SOBI are indicative of a higher level of sense of belonging.

Previous research has shown the SOBI to be a valid and reliable measure. The SOBI's construct validity is supported by the inter-scale correlation of the SOBI-P and the SOBI-A ($r = .45$). The test-retest reliability coefficients for the instrument have been measured as $r = .84$ for SOBI-P and $r = .66$ for SOBI-A over an eight-week period. The internal consistency coefficient was also acceptable; $\alpha = .93$, for SOBI-P and $.72$ for SOBI-A (Hagerty & Patusky, 1995). McLaren et al. (2001) recorded internal consistencies of $\alpha = .95$ for SOBI-P and $\alpha = .82$ for SOBI-A for an Australian community sample ($n = 395$). In the present study internal consistency for SOBI-P (Team) was $\alpha = .88$, SOBI-A (Team) was $\alpha = .86$, SOBI-P (University) was $\alpha = .88$, and SOBI-A (University) was $\alpha = .86$.

2.2.2 The General Health Questionnaire. The General Health Questionnaire (GHQ; Goldberg & Hillier, 1979) is a 28-item self-administered screening questionnaire that measures two phenomena: the inability of one to carry out normal functions and the presence of recent distressing phenomena. The GHQ consists of four sub-scales: Somatic Symptoms (e.g., "Been feeling perfectly well and in good health"), Anxiety and Insomnia (e.g., "lost much sleep over worry"), Social Dysfunction and Severe Depression (e.g., "been managing to keep yourself busy and occupied"), and Suicide Ideation (e.g., "felt that life isn't worth living").

Participants indicated the frequency with which they had experienced medical complaints and health in general over the past few weeks. Participants responded to each question by rating them on a four-point Likert scale ("better than usual", "same as usual", "worse than usual" and "much worse than usual", or "not at all", "no more than usual", "rather more than usual" and "much more than usual", depending on the subscale). Higher scores corresponded to increasing psychological pathology.

Previous research has shown the GHQ to be a reliable and valid measure. It has been widely used to measure physical and psychological adjustment (Booth & Lloyd, 2000; Burbeck et al., 2002; Coomber et al., 2002). Australian norms for internal consistency of the 28-item questionnaire were $\alpha = .90$ and $\alpha = .88$ (Winefield, Goldney, Winefield, & Tiggeman, 1989). Test-retest correlations over a one and two year period were $r = .44$ and $r = .50$ for males, and $r = .38$, $r = .32$ for females. The validity of the instrument was demonstrated by significant correlations between the GHQ and other self-report measures of psychological constructs, including self-esteem ($r = -.47$), locus of control ($r = .31$), and depressive affect ($r = .55$). In the present study the internal consistency was $\alpha = .94$.

2.2.3 Perceived Stress Scale. The Perceived Stress Scale (PSS), developed by Cohen et al. (1983), is a 14-item questionnaire designed to measure the degree to which an individual appraises his or her life as being stressful. This scale focuses upon the individual's subjective experience of stress, thus resulting in a global measure of perceived stress. Some examples of questions on the PSS are; "In the last month how often have you felt nervous or "stressed"?", and "In the last month how often have you felt that you are on top of things?".

Each item required the participant to indicate how often they had felt or thought a certain way within the month prior to completing the questionnaire. Participants rated their responses on a 5-point Likert scale (0 = Never; 4 = Very Often). Higher score indicated a higher level of global stress.

Previous research has shown the PSS to be a valid and reliable instrument. The test-retest reliability correlation was acceptable ($r = .85$). The internal consistencies for an Australian community sample ($n = 655$) (McLaren et al., 2001) and 98 ambulance officers

(Horwell & McLaren, 2000) were also high ($\alpha = .89$ and $\alpha = .84$, respectively). In the present study the internal consistency for PSS was acceptable ($\alpha = .79$).

2.2.4 The Maslach Burnout Inventory. The Maslach Burnout Inventory (MBI), developed by Maslach, Jackson, and Leiter (1996), is a 22-item questionnaire designed to measure three elements of the burnout syndrome. The first element is the participant's emotional exhaustion, which reflects the extent to which the participant's emotional resources are depleted (e.g., "I feel emotionally drained at work"). The second element is the participant's expression of depersonalisation, which is where the participant responds with negative, cynical attitudes and feelings towards clients (e.g., "I don't really care what happens to some recipients"). The third element is the participant's personal accomplishment, where the participant responds by evaluating his or her work with clients on a negative basis (e.g., "I do not deal very effectively with the problems of my recipients"). Participants responded to each question by rating them on a seven point Likert scale (0 = never; 6 = every day). Higher scores indicated greater levels of burnout.

The instrument has been shown to be robust in reliability and construct validity and is the most widely used burnout instrument (Abu-Hilal & El-Emadi, 1992; Dowd, 1985; Drake & Yadama, 1996; Kahill, 1988). Internal consistency for the instrument has been measured as $\alpha = .80$, $\alpha = .76$, and $\alpha = .60$ for Emotional Exhaustion, Personal Accomplishment and Depersonalisation, respectively (Abu-Hilal & Salameh, 1992). In the present study the internal consistency of the MBI was recorded as $\alpha = .83$.

2.3 Procedure

Approval to conduct the study was granted by the University's Human Research Ethics Committee and the University's management. The University's union delegate supported the research.

Participants were issued with a covering letter, which explained the nature and purpose of the present study. Participants received a self-administered questionnaire pack, which was delivered through the University's internal mail system. Completed questionnaires were returned to the researcher in a self-addressed envelope, which was provided in each questionnaire package. All participants had two weeks to complete the questionnaires. The order of the questionnaires was counterbalance to avoid order effects.

Participants were provided with contact numbers should they have required further information about the study. All participants were issued with appropriate contact numbers had any personal difficulties arisen as a result of participation in the study.

Results

3.1 Data Preparation

All analyses were conducted utilising the Statistical Package for the Social Sciences (SPSS) for Windows (SPSS, Inc, 1998) and an alpha level of .05 was adopted for statistical significance. The participant pool was 95 and no outliers were detected in the initial screening of the data. Evaluation of the assumption of normality, linearity, homogeneity and sphericity were satisfactory for all measures except for General Health Questionnaire. Logarithmic data transformations were performed upon skewed data from the General Health Questionnaire in order to meet assumptions of normality (Tabachnick & Fidell, 1989).

3.2 Order Effects

Initial analyses tested whether questionnaire order had any significant influence upon participants' responses. A multivariate analysis of variance (MANOVA) indicated that there were no significant differences between the twenty questionnaire orders for any of the major variables, Wilk's $\Lambda = .17$, $F(7, 133) = 1.00$, $p > .05$, partial $\eta^2 = .23$. It was concluded that questionnaire order did not significantly affect the results.

3.3 The Relationship Between Sense of Belonging (Team and University),

Demographic Variables and Stress Measures

In order to determine if there were significant correlations between the total scores on Sense of Belonging and the variables of interest, bivariate correlations were conducted.

Results are shown in Table 3.

Table 3
 Correlations between Sense of Belonging (Team), Sense of Belonging (University), Demographic and Stress Variables

Measure	1	2	3	4	5	6	7	8	9	10
1. Gender ^a	-									
2. Campus ^b	-.04	-								
3. Union Member ^c	-.01	.17	-							
4. Intention of Leaving Team ^d	-.11	-.21*	-.04	-						
5. Intention of Leaving University ^d	-.07	-.15	-.09	.77**	-					
6. Sense of Belonging-Team	.24*	.05	-.09	-.18	-.15	-				
7. Sense of Belonging-University	.15	.13	-.14	-.14	-.27**	.60**	-			
8. Burnout	-.08	-.04	-.08	.33**	.32**	-.50**	-.42**	-		
9. General Health	.05	-.05	.01	.20	.12	-.39**	-.26**	.68**	-	
10. Perceived Stress	-.09	.06	-.02	.10	.16	-.43**	-.37**	.71**	.72**	-

^a 1 = male, 2 = female. ^b 1 = primary campus, 2 = merged. ^c 1 = yes, 2 = no. ^d 1 = no intention of leaving, 10 = definitely leaving.

* $p < .05$. ** $p < .01$

Table 3 demonstrates that significant correlations exist between sense of belonging to the Team and to the University and the stress measures. The results indicated that higher levels of sense of belonging to the Team and University were associated with lower levels of burnout and global stress and with better general health. Further, intention to leave the team was associated with working on the main campus and having higher levels of burnout. Intentions to leave the University were associated with lower levels of belonging to the University and higher levels of burnout. Females indicated a higher sense of belonging to the Team than their male counterparts.

A series of five regressions (one for each stress and intention to leave variable) were performed to test for the predictive power of the two forms of sense of belonging: Team and University. Results can be seen in Table 4.

From Table 4, it is evident that the two forms of sense of belonging made a significant contribution to the prediction of global stress, explaining 18% of the variance, $R^2 = .20$, adjusted $R^2 = .18$, $F(2, 88) = 10.95$, $p < .001$. Examination of the Beta weights indicated that sense of belonging to the team contributed to the predictive power of the model, $t(88) = 2.92$, $p < .005$, but that sense of belonging to the University did not.

Similarly, the two types of sense of belonging made a significant contribution to the prediction of general health, explaining 14% of the variance, $R^2 = .16$, adjusted $R^2 = .14$, $F(2, 89) = 8.35$, $p < .001$. Examination of the Beta weights indicated that sense of belonging to the team, but not sense of belonging to the University, contributed to the predictive power of the model, $t(89) = 3.23$, $p < .003$.

Table 4

Summary of Regression Analyses for Sense of Belonging to the Team and to the University as Predictors of Stress and Intention to Leave

Variable	<u>B</u>	<u>SE B</u>	β
Perceived Stress			
Sense of Belonging-Team	-.23	.08	-.35**
Sense of Belonging-University	.01	.07	-.14
General Health			
Sense of Belonging-Team	.00	.00	-.39**
Sense of Belonging-University	.00	.00	-.01
Burnout			
Sense of Belonging-Team	-.55	.17	-.38**
Sense of Belonging-University	-.24	.15	-.18
Intention to Leave-Team			
Sense of Belonging-Team	.00	.03	-.16
Sense of Belonging-University	.00	.03	-.04
Intention to Leave-University			
Sense of Belonging-Team	.00	.03	.01
Sense of Belonging-University	-.01	.03	-.27*

* $p < .05$. ** $p < .01$

Results indicated that both types of sense of belonging in combination made a significant contribution to the prediction of burnout, explaining 25% of the variance, $R^2 = .25$, adjusted $R^2 = .25$, $F(2, 88) = 15.75$, $p < .001$. However, examination of the Beta weights indicated that only sense of belonging to the team contributed to the predictive power of the model, $t(88) = 3.35$, $p < .002$.

Sense of belonging to the Team and to the University did not predict intentions to leave the team, with the two forms of belonging explaining 3.5% of the variance, $\underline{R}^2 = .30$, adjusted $\underline{R}^2 = .01$, $\underline{F}(2, 88) = 1.59$, $p > .05$. The two types of belonging did, however, predict intentions to leave the University, explaining 7% of the variance, $\underline{R}^2 = .07$, adjusted $\underline{R}^2 = .05$, $\underline{F}(2, 88) = 3.25$, $p < .05$. Inspection of the beta weights indicated that only sense of belonging to the University contributed to the predictive power of the model, $t(88) = 2.06$, $p < .05$.

In summary, it is evident that sense of belonging to the team generally is a better predictor of indices of work stress than sense of belonging to the University. Sense of belonging to the University was the predictor of intentions to leave the University.

In order to further explore the relationship between SOBI-Team and SOBI-University and the stress measures, participants' sense of belonging was divided into low and high for the Team and University using the median score for each measure. Thus, four groups were established: low sense of belonging to the Team and low sense of belonging to the University (Group 1), low sense of belonging to the Team and high sense of belonging to the University (Group 2), high sense of belonging to the Team and low sense of belonging to the University (Group 3), and high sense of belonging to the Team and high sense of belonging to the University (Group 4). Table 5 shows the total numbers in each group. As the two measures were correlated group sizes, inevitably, were uneven.

Table 5
Number of Employees for Each Group

	Low SOBI- University	High SOBI- University	Total
Low SOBI- Team	36 (Group 1)	10 (Group 2)	46
Hi SOBI-Team	11 (Group 3)	35 (Group 4)	46
Total	47	45	92

A 2 (SOBI-Team: high/low) x 2 (SOBI-University: high/low) analysis of variance (ANOVA) was conducted, with intentions to leave the team entered as the dependant variable. Means and standard deviations can be seen in Table 6.

Table 6
Means, Standard Deviations and Totals for Intentions of Leaving the Team

		SOBI-U					
		Low		High		Total	
SOBI-T	Low	<u>M</u>	4.18	<u>M</u>	2.68	<u>M</u>	3.85
		<u>SD</u>	3.43	<u>SD</u>	2.89	<u>SD</u>	3.34
	Hi	<u>M</u>	2.80	<u>M</u>	3.64	<u>M</u>	3.45
		<u>SD</u>	3.01	<u>SD</u>	3.05	<u>SD</u>	3.03
Total		<u>M</u>	3.88	<u>M</u>	3.42	<u>M</u>	3.65
		<u>SD</u>	3.36	<u>SD</u>	3.01	<u>SD</u>	3.18

Results failed to show a main effect for SOBI-Team, $F(1, 87) = 0.07$, $p > .05$, partial $\eta^2 = .00$, or SOBI-University, $F(1, 87) = 0.17$, $p > .05$, partial $\eta^2 = .00$. Further, there was no interaction between the two types of sense of belonging, $F(1, 87) = 2.10$, $p > .05$, partial $\eta^2 = .02$.

A second 2 (SOBI-Team: high/low) x 2 (SOBI-University: high/low) ANOVA was conducted, with intentions to leave the University entered as the dependant variable.

Means and standard deviations can be seen in Table 7.

Table 7

Means, Standard Deviations and Totals for Intentions of Leaving the University

		SOBI-U					
		Low		High		Total	
SOBI-T	Low	<u>M</u>	4.18	<u>M</u>	2.70	<u>M</u>	3.86
		<u>SD</u>	3.30	<u>SD</u>	2.06	<u>SD</u>	3.12
	Hi	<u>M</u>	5.00	<u>M</u>	3.16	<u>M</u>	3.57
		<u>SD</u>	3.83	<u>SD</u>	2.63	<u>SD</u>	2.99
Total		<u>M</u>	4.36	<u>M</u>	3.06	<u>M</u>	3.71
		<u>SD</u>	3.40	<u>SD</u>	2.50	<u>SD</u>	3.04

Results indicated a main effect for SOBI-University, $F(1, 87) = 45.76$, $p < .04$, partial $\eta^2 = .045$. It is evident from Table 7 that employees with higher sense of belonging to the University had fewer intentions of leaving the University compared to employees with a lessened sense of belonging to the University. Results failed to show a main effect for

SOBI-Team, $F(1, 87) = 0.71, p > .05$, partial $\eta^2 = .01$. Further, there was no interaction between the two types of sense of belonging, $F(1, 87) = 0.06, p > .05$, partial $\eta^2 = .00$.

A series of three more 2 (SOBI-Team: high/low) x 2 (SOBI-University: high/low) ANOVAs were conducted, with burnout, global stress and general health entered as the dependent variables.

Results indicated a main effect for SOBI-Team for global stress, $F(1, 87) = 5.99, p < .02$, partial $\eta^2 = .06$. Means and standard deviations can be seen in Table 8. It is evident from the means in Table 8 that employees with a lessened sense of belonging to the Team experience significantly higher levels of perceived stress than their counterparts who feel a greater sense of belonging to their work team. Results did not demonstrate a main effect for SOBI-U, $F(1, 88) = 2.59, p > .05$, partial $\eta^2 = .03$, nor an interaction between SOBI-Team and SOBI-University, $F(1, 88) = 2.55, p > .05$, partial $\eta^2 = .03$.

Table 8

Means, Standard Deviations and Totals for Global Stress (PSS)

		SOBI-U					
		Low		High		Total	
SOBI-T	Low	<u>M</u>	33.23	<u>M</u>	33.20	<u>M</u>	33.22
		<u>SD</u>	6.55	<u>SD</u>	11.58	<u>SD</u>	7.78
	Hi	<u>M</u>	31.55	<u>M</u>	25.20	<u>M</u>	26.72
		<u>SD</u>	9.30	<u>SD</u>	7.60	<u>SD</u>	8.39
	Total	<u>M</u>	32.83	<u>M</u>	26.98	<u>M</u>	29.93
		<u>SD</u>	7.22	<u>SD</u>	9.13	<u>SD</u>	8.69

A main effect was also evident for the logarithmic transformations of the scores on the GHQ, $F(1, 88) = 5.62, p < .03, \text{partial } \eta^2 = .06$. Means and standard deviations of the raw scores can be seen in Table 9. Inspection of the means in Table 9 indicates that employees who reported a lessened sense of belonging to the Team reported poorer physical functioning than employees who report a greater sense of belonging to their work team. There was no evidence for a main effect for SOBI-University, $F(1, 88) = 0.83, p > .05, \text{partial } \eta^2 = .01$, nor for an interaction between the two types of sense of belonging, $F(1, 88) = 0.01, p > .05, \text{partial } \eta^2 = .00$.

Table 9

Means, Standard Deviations and Totals for General Health (GHQ)

		SOBI-U					
		Low		High		Total	
SOBI-T	Low	<u>M</u>	63.67	<u>M</u>	62.10	<u>M</u>	63.33
		<u>SD</u>	6.85	<u>SD</u>	8.85	<u>SD</u>	7.25
	Hi	<u>M</u>	59.36	<u>M</u>	58.00	<u>M</u>	58.33
		<u>SD</u>	6.95	<u>SD</u>	6.93	<u>SD</u>	6.88
	Total	<u>M</u>	62.66	<u>M</u>	58.91	<u>M</u>	60.83
		<u>SD</u>	7.04	<u>SD</u>	7.49	<u>SD</u>	7.47

Results for the third stress measure, burnout, demonstrated a significant main effect for SOBI-Team, $F(1, 87) = 5.54, p < .03, \text{partial } \eta^2 = .06$, and for SOBI-University, $F(1, 87) = 6.34, p < .02, \text{partial } \eta^2 = .07$. Means and standard deviations for burnout can be

seen in Table 10. It is evident from Table 10 that employees who reported higher levels of sense of belonging to the team or to the University had lower levels of burnout than their counterparts who reported a lesser sense of belonging to the team or to the University.

Table 10

Means, Standard Deviations and Totals for Burnout (MBI)

		SOBI-U					
		Low		High		Total	
SOBI-T	Low	<u>M</u>	50.77	<u>M</u>	39.10	<u>M</u>	48.18
		<u>SD</u>	17.61	<u>SD</u>	23.00	<u>SD</u>	19.29
	Hi	<u>M</u>	39.82	<u>M</u>	29.46	<u>M</u>	31.93
		<u>SD</u>	20.19	<u>SD</u>	14.83	<u>SD</u>	16.64
	Total	<u>M</u>	48.15	<u>M</u>	31.60	<u>M</u>	39.97
		<u>SD</u>	18.65	<u>SD</u>	17.17	<u>SD</u>	19.67

In summary, employees who reported higher levels of sense of belonging to their immediate working Team reported lower levels of global stress and burnout, and higher levels of general health. Further, those indicating a higher sense of belonging to the University reported lower levels of burnout and had fewer intentions of leaving the University, compared with their colleagues who reported a lower sense of belonging to the University.

3.4 Summary

The current research found that females showed a higher sense of belonging to their work team and the University than males. Employees who showed a lower sense of belonging to the University had stronger intentions of leaving the University. Further, employees who indicated a higher sense of belonging to their team reported better mental health than their counterparts who reported a lessened sense of belonging to their work team. Finally, sense of belonging to the team was a better predictor of stress than sense of belonging to the University.

Discussion

Previous research has demonstrated that sense of belonging to the community is important for one's mental health (Hagerty, Lynch-Sauer, Patusky, Bowsema, & Collier, 1992; Hagerty, Lynch-Sauer, Patusky, and Bowsema 1993, Hagerty, & Patusky, 1995; Hagerty, Williams, Coyne, & Early, 1996; Hagerty, & Williams, 1999; Hagerty, Williams, & Oe, 2002a; McLaren, Jude, Hopes, & Sherritt, 2001). The current research provided knowledge about sense of belonging and its relationship with mental and physical health in a system that has not previously been researched, namely the workplace. Researching sense of belonging in the workplace is important, given that most people spend a large part of their day at work (Baker, Helier, & Ferguson, 2003; Blair-Loy & Jacobs, 2003; Mattingly & Bianchi, 2003; Sparks, Faragher, & Cooper, 2001). Further, when at work, it has been proposed that most people spend a large part of their day at work (Baker, Helier, & Ferguson, 2003; Blair-Loy & Jacobs, 2003; Mattingly & Bianchi, 2003; Sparks, Faragher, & Cooper, 2001). Further, when at work, it has been long recognised that most people spend their time as part of a group, which is itself part of a larger organisation (Mario, 2003). The current research aimed to investigate sense of belonging to one's immediate work team and to the larger organisation as a whole, as predictors of occupational stress among employees of a regional university.

It was predicted that higher levels of sense of belonging to the work team would be associated with better physical and mental health. The results supported this prediction, with higher levels of sense of belonging to the immediate work team being associated with lower levels of work stress, burnout, and global stress, and with better general health. Similarly, it was predicted that higher levels of sense of belonging to the University would be associated with better physical and mental health. Again, results supported this hypothesis, with higher

levels of sense of belonging to the University being associated with lower levels of work stress, burnout, and global stress, and with better general health. These results are consistent with previous research, which indicated that sense of belonging was related to stress (Hagerty et al., 1993, 1996; Hagerty & Williams, 1999; McLaren et al., 2001), depression (Hagerty et al., 1996; Hagerty & Williams, 1999; Herbert, 1997; Rice, 1999; Toates, 1995; Wade, Monroe, & Michelson, 1993), suicide ideation (Greenberg, 1984; Rice, 1999), anxiety disorders (Herbert, 1997; Rice, 1999; Wade et al., 1993) and self-esteem (Lee & Robins, 1998). However, whereas these previous studies have shown the importance of belonging to the community one lives in with respect to health, the current research clarified that feeling a sense of belonging to one's work team and work organisation is important for minimising the experience of occupational stress.

It was expected that sense of belonging to the work team would be a better predictor of the stress variables than sense of belonging to the university. This hypothesis was supported. Throughout the literature it is evident that an individual's interconnectedness, social support network and relatedness are key factors in determining how strongly one feels part of a team rather than an organisation, such as a University (Hagerty et al., 1992). This effect is not surprising, given the amount of time workers spend in contact with their immediate working team (Mario, 2003). It is plausible that participants did not identify or feel that they were part of the University possibly due to the size of the institution, its complex organisational structures and the relatively recent mergers of three, formerly independent organisations, into the one. Furthermore, organisations are largely abstract entities with only the senior management and University council typically seen as concrete manifestations of the University. While the majority of workers would see themselves as gardeners, cleaners,

administrative officers and lecturers “at” the University, only at the higher levels are personnel entitled “of” the University, for example, the Chancellor, Vice-chancellor and Depute Vice-chancellors. While people can identify with and feel a strong sense of belonging to abstract entities, nations and racial groups for example, it is clearly a more challenging task than to feel a strong sense of belonging to one’s immediate colleagues with one works and may socialise. Thus, it is not surprising that feeling that one belongs within the team is of more consequence to one’s mental and physical health than feeling a part of a wider organisation.

Given the comparatively weak effect that sense of belonging to the University had on health, it was less surprising that the hypothesis that there would be an interaction between the two senses of belonging was not supported. Results clearly indicated that sense of belonging to the team was the important predictor of burnout, global stress and general health and the impact of sense of belonging to the University was relatively weak, both on its own and in combination with sense of belonging to the team.

The initial correlations between the stress indices and the two forms of sense of belonging were significant. However, upon further analyses, it was clear that sense of belonging to the team was the key predictor of the stress variables. Consequently, knowing one’s sense of belonging to the University does not account for anymore of the variance in stress measures than simply knowing sense of belonging to the team.

This situation did not arise in relation to the participants’ intention to leave, however, which was predicted by sense of belonging to the University but not sense of belonging to the team. Winter-Collins and McDaniel (2000) found that newly graduated nurses tended to be satisfied with co-worker support, a factor that is related to the team environment and sense of

belonging. Also, graduate nurses with a greater sense of belonging had less intentions of leaving their occupation. The current study served to refine this perspective by clearly delineating between sense of belonging to the work team and sense of belonging to the organisation. It was the latter that largely governed expressions concerning leaving the organisation, while sense of belonging to immediately colleagues largely determined mental health. This result was in line with the work of Hagerty et al. (2002) who found that navy recruits with a lower sense of belonging to the naval community were also found to be more likely to leave their occupation.

In summary, it would appear that sense of belonging to the immediate work team is important for the mental health of workers, whereas the extent to which one feels a part of the larger organisation is important for the retention of workers. Perhaps the force of this result can be further appreciated by imagining that it is dissatisfaction with working conditions that might force a person to contemplate resignation and that this view could co-exist with the person feeling a strong sense of belonging to work colleagues. Conversely, some workers might feel committed to the organisation and have no immediate thoughts of leaving but may not get on well with colleagues. From the time of Herzberg (1966, 1968) it has been recognised that workers may distinguish quite clearly between the background conditions of work, such as colleagues and physical environment, and those aspects of work that may inspire them, such as pay or promotion. The relative importance of sense of belonging to team and organisation in determining intention to leave will also be subject to external factors such as availability of comparable work and personal financial situation. An academic might tolerate low sense of belonging to the team if the University continues to offer the chance to

develop his or her career. In contrast, the administrative assistant is more likely to leave if she cannot get on with her team when there is a similar position in another organisation.

The current results and line of argumentation indicate the need for a two-pronged intervention program within the organisation. First, in order to reduce the stress experienced by workers, focus on enhancing sense of belonging to the immediate work team is needed. Identifying members of that work team may not be a straightforward task. When completing the questionnaires, workers defined their own work team. It is of the utmost importance, therefore, that any intervention targets the right people in any given work team. It may be that members of specific work teams themselves initiate the fostering of a sense of belonging. Small initiatives, such as having morning or afternoon tea or lunch together, may begin to foster a sense of belonging among colleagues who work together. Developing an employee's sense of belonging to their team via supervisor support, social support within the team, building team values, developing group norms and cohesiveness and valuing individual's work and opinions, should reduce work stress. It is also necessary to consider the nature and type of work that a group does when considering intervention, given that the relative importance of the two senses of belonging in determining intentions to leave may vary with these factors.

On the broader scale, a sense of belonging to the University may be enhanced to reduce the number of workers leaving the organisation. Winefield et al. (2002) found that 52% of university staff reported being committed to their university. It may be suggested that many of those who do not report feeling committed to their university also do not feel a sense of belonging to the organisation. There would appear, therefore, a large number of university employees intending to leave their organisation. Staff turnover is costly to organisations (Tai

& Robinson, 1998) for a number of reasons, including recruiting (Hwang & Kogan, 2003) and training of new staff (Aventin & Huard, 1999). Consequently, reducing staff turnover is a key issue for organisations. The results of this study indicate that increasing the sense of belonging to the university may reduce intentions of leaving.

Enhancing sense of belonging to the University will occur in part simply by increasing the sense of belonging to one's team, since the two senses of belongings are correlated. Other initiatives, including introducing family friendly practices (Teo & Waters, 2002), may lead to employees feeling valued. One may have assumed that being a member of the union would have enhanced sense of belonging to the University, as a union gives a voice to the workers. However, results failed to show that union membership was associated with higher levels of sense of belonging. Previous research into union loyalty (Iverson & Kuruvilla, 1995) has established that contextual and dispositional variables have to be taken into account. Organisational context was defined as situational and environmental factors; individual dispositions were defined as personality traits. Union members who were enthusiastic, interested and active (high positive affectivity) were more likely to be loyal to the union (Iverson & Kuruvilla, 1995). One suspects these members would also feel a sense of belonging to the institution and would subscribe to the view that the Union actually enhances the workings of the institution. It is also plausible that other members of the Union are adversely affected by the general organisational context and see the Union as a form of defence against what they perceive as threatening institutional practices. If the Union is composed of workers who range across these positions it is understandable that there is no consistent relationship between membership and sense of belonging to the University.

Results showed that females reported a stronger sense of belonging than males to both the team and the University. Previous research has also indicated that females have a stronger sense of belonging than males (Belle, 1991; Clancy & Dollinger, 1993; Hagerty et al. 1992; Lang-Takac & Osterweil, 1992; Martin & Ruble, 1997). It is believed that females rely upon external sources of support in times of stress or crisis to a greater extent than males (Belle, 1991; Lang-Takac & Osterweil, 1992; Mallinckrodt & Leong, 1992). The importance of sense of belonging for females has been linked to their psychosocial development (Hagerty et al., 1996), which further highlights the importance of social support and relationships for females.

This would account for the fact that females feel a greater sense of belonging to the team but their relatively stronger sense of belonging to the institution is more puzzling, especially as traditionally it was the work place that males relied upon to convey a sense of identity. One possible explanation is the level and type of work that females do within the University. Given their prevalence in positions within the University that are also available in other institutions within the area, it is possible that they elect to stay with an organisation they appreciate. Males, on the other hand, may be over-represented in positions that are infrequent in other local organisations. Thus, the male sample may express less belonging and are more likely to express a desire to leave but are not able to find equivalent work. External constraints therefore lead to males remaining but demonstrating less belonging to the University.

Given the results indicate that sense of belonging to the team is related to mental and general health, and that sense of belonging to the University is related to intentions to leave, the results concerning gender are significant. They indicate that a lessened sense of belonging among male workers places them at risk for mental and physical ill-health. This is compounded by the possible situation that males find themselves in which they would like to

leave the University but cannot. Their lower sense of belonging at both levels may place them in a vulnerable position and, therefore, while interventions to enhance both types of belonging must be sensitive to the needs of both men and women, they might be especially important for men.

The study also sought to examine the impact of mergers on sense of belonging. Mergers of institutions have been found to pose critical dilemmas for those entering into them and trying to become part of the new organisational identity (Gould, Ebers, & Clinchy, 1999). It was thought that those workers located at the merged campuses would show a lower sense of belonging than workers from the main campus. The present research did not support this argument. It is possible that the University managed the merger in such a way that minimal impact upon staff was evident, and that sense of belonging to the new organisation was enhanced. Given that the key predictor of stress, however, was sense of belonging to the team, the broader organisational context is of less importance.

One of the limitations of the study was the questionnaire return rate of 95 from 500 (19%). The expectations were that, given the university is an academic institution dedicated to knowledge and research, a higher return rate would be evident. However, this is consistent with previous research on university staff stress levels (Winefield et al., 2001) that had an overall response rate of 25%. Of interest in the present study is that 62% (22.5% return rate) of the participants were part of the original institution and the remaining 38% (15% return rate) belonged to the merged campuses. Whereas sense of belonging scores might not have been associated with coming from a merged campus, the return rates indicate that perhaps workers from such campuses did not wish to contribute to a study arising from the main

campus. The low response rate also brings in to question the representativeness of the sample.

A second limitation is the range of dependent variables analysed. The analyses were limited to the total scores of each measure, mainly due to the number of measures used and the sample size. Future research should examine sense of belonging in relation to subscales of the burnout and general health scales. Future research should also extend the range of stress indices. For example, a common variable researched in occupational stress is job satisfaction (e.g., Andrea et al., 2003; Barling, Kelloway, & Iverson, 2003; Bednar, 2003; Hardy, Woods, & Wall, 2003; Hatton & Emerson, 1998; Mitchell, Mackenzie, Styve, & Gover, 2000). The relationship between sense of belonging and job satisfaction has been investigated in only one study (Winter-Collins & McDaniel, 2000). The selection of measures also raises the issues of overlapping constructs and the problem of common method variance.

The sole use of self-report measures is also a limitation of this research. Future research should include more objective indices, including the number of days taken on sick leave, and the level of absenteeism. Both of these measures have been used in previous research to give an objective measure of occupational stress (Andrea et al., 2003; Baker et al., 2003; Bakker, Demerouti, de Boer, & Schaufeldi, 2003; Evans & Steptoe, 2002; Hardy, Woods, & Wall, 2003; Taris, Kalimo, & Schaufeli, 2002).

Further research is warranted that examines factors that enhance sense of belonging in the workplace. Increasing opportunities for supervision, increased team support and better managerial support needs to be examined in relation to an employee's sense of belonging. Future research may focus on the development of effective strategies designed to decrease work related stress by developing programs that increase employees' sense of belonging to

their team and organisation. Increased knowledge in this area may influence job effectiveness and job satisfaction and reduce employee turnover.

In summary, the current study provided an important examination of the relationship between sense of belonging and mental and physical health within a type of organisation (University) that has not been previously researched. Recently, large organisations have been encouraged by Workcover Victoria and Comcare (Stanton, 2000), which are the Australian Government's workers' compensation and occupational health and safety agents, to reduce worker stress levels by introducing worksite relaxation classes, massage at work stations, stress leave, peer support groups and organisational structures that can address system stressors. The current research clearly indicates that an alternative method would be to enhance team cohesiveness and supports by promoting social events and activities and to introduce team-building days. Focussing on enhancing the extent to which employees feel a valued member of their work team is clearly vital for reducing work and global stress, and enhancing general health.

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Appendix A
Measures Used In Study

Invitation to Participate in "Work and Health" Research

Dear University Employee,

We invite you to participate in a study being conducted by Master of Applied Science (Psychology) candidate, Stuart Oldfield, under the supervision of Dr Suzanne McLaren and Dr Angus McLachlan, at the University of Ballarat. The research has been approved by the University's Human Research Ethics Committee, University Management and the NTEU (University of Ballarat branch). This research investigates the ways in which University employees view their work organisation and work team, and how these views are related to the mental and physical health of workers. The research findings could lead to the development of a healthier workplace for University employees.

If you volunteer to participate in the research, you will be asked to complete a number of questionnaires, as well as provide some background information. The questionnaires assess your views of the organisation in which you work, as well as the team in which you are currently placed. You will be asked about the people you work with, as well as the thoughts and feelings you have been having in the last few weeks.

Your name is not required on the questionnaire, hence ensuring your anonymity. When completed and returned, your anonymous questionnaire will form part of a larger database, from which only group data will be reported.

The questionnaire takes approximately 35 minutes to complete, and it is important that each question be answered as honestly as possible for the research to be of significant value. You may withdraw your participation at any time whilst completing the questionnaire (particularly if you are experiencing distress). Please understand that once you have returned the completed questionnaire, we will be unable to identify your anonymous questionnaire amongst the larger pool, hence withdrawal at this stage will not be possible.

Should you decide to participate, please complete the questionnaire package and return it via the internal mail system using the supplied envelope. Please note that returning the completed questionnaire indicates consent to participate in the research. Completed questionnaires should be returned to the researchers within **two (2) weeks of receipt**.

If you have **any** concerns during or after completing the questionnaire, you are encouraged to discuss these with any of the researchers. Alternatively, you may wish to discuss any issues with your Doctor. Should you prefer to retain your anonymity, Lifeline is also available 24-hours-a-day for the cost of a local call (telephone 13 1114) or freecall (1300 651 251).

A summary of results will be available by mid 2002. Participants interested in receiving this information are asked to contact the researchers and a summary will be posted out.

Thank you for considering participating in this important study of workers' health.

Mr Stuart Oldfield

Dr Suzanne McLaren
Telephone 03 5327 9628

Dr Angus McLachlan
Telephone 03 5327 9666

Note. Should you have any concerns about the conduct of this research project, please contact the Executive Officer, Human Research Ethics Committee, Scholarship and Educational Development Services Branch, University of Ballarat, PO Box 663, Mt Helen VIC 3353. Telephone: (03) 5327 9765.

School of Behavioural
& Social Sciences
and Humanities

Mt Helen Campus

University Drive, Mount Helen,
PO Box 663 Ballarat, Victoria,
353 Australia

Telephone: (03) 5327 9765
Facsimile: (03) 5327 9765



BACKGROUND INFORMATION

1. Gender Male Female

2. Age in years

3. Postcode of residential address

4. Marital Status Single

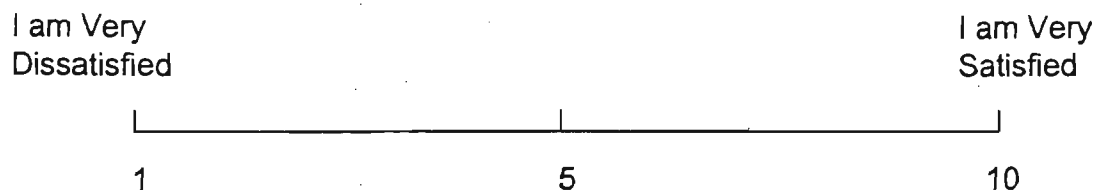
Married / DeFacto

Separated / Divorced

Widowed

Other- Please specify

5. If you are currently in a relationship, please grade that relationship in regards to satisfaction on the following scale :-



6. If applicable, please state your religious affiliation

7. Your country of origin

8. With which culture do you identify?

9. Highest attained educational level

10. Present salary range? (before tax)	Less than \$30 000	<input type="checkbox"/>	\$30 000 to \$39 999	<input type="checkbox"/>
	\$40 000 to \$49 999	<input type="checkbox"/>	\$50 000 to \$59 999	<input type="checkbox"/>
	\$60 000 to \$69 999	<input type="checkbox"/>	Over \$70 000	<input type="checkbox"/>

11. At which University Campus are you primarily employed?

Mount Helen Campus Ararat Campus Stawell Campus
Horsham Campus SMB Campus

12. Length of employment at University of Ballarat years (exclude any time at a previously independent insitution; e.g., Horsham TAFE)

13. Length of employment at a previously independent institution (e.g., Horsham TAFE)
..... years

14. Are you employed as an academic or general staff member?

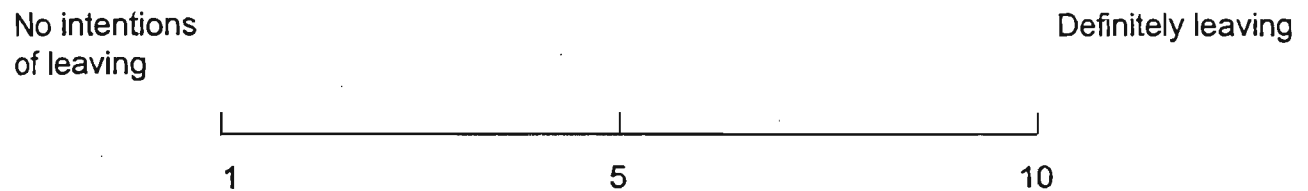
15. Terms of employment continuing position contract sessional

16. Current Work Team (e.g., cleaning, psychology)

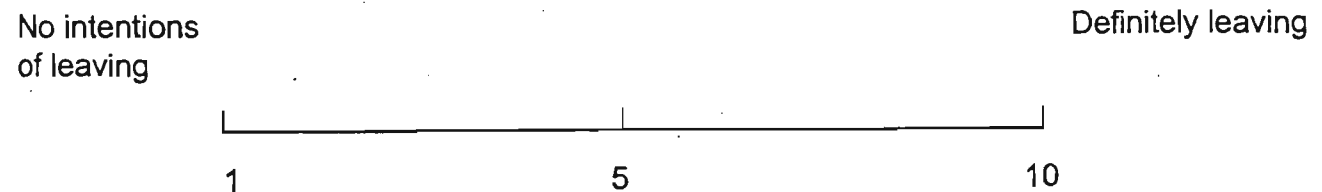
17. Length of time in your current team years

18. Are you a union member? Yes No

19. What are your intentions of leaving your present team?



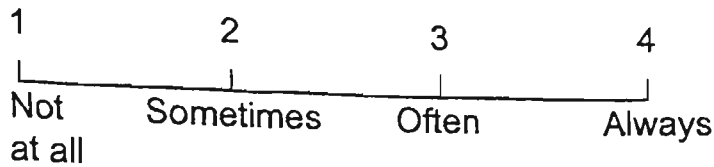
20. What are your intentions of leaving the University?



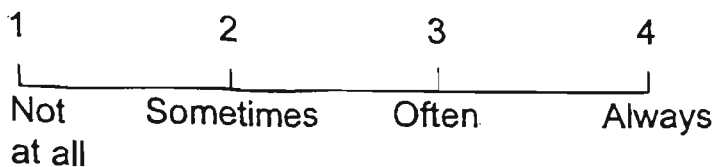
21. Are there sufficient career opportunities in the University for you? Yes No

Please turn the page and begin the questionnaires. When answering the questions, please be as honest as possible and choose only one response.

When answering these questions, please use the following scale:



1. My job requires working very fast	1	2	3	4
2. My job requires working very hard	1	2	3	4
3. I am not asked to do an excessive amount of work	1	2	3	4
4. I have enough time to get the job done	1	2	3	4
5. I am free from conflicting demands that others make	1	2	3	4
6. My job requires long periods of intense concentration	1	2	3	4
7. My tasks are often interrupted before they can be completed, requiring attention at a later time	1	2	3	4
8. My job is very hectic	1	2	3	4
9. Waiting on work from other people or departments often slows me down in my job	1	2	3	4
10. My job allows me to make a lot of decisions on my own	1	2	3	4
11. On my job, I have very little freedom to decide how I do my work	1	2	3	4
12. I have a lot of say on what happens in my job	1	2	3	4
13. I can determine the order in which my work is to be done	1	2	3	4
14. I can determine when a task is to be done	1	2	3	4
15. I can easily leave the work place for a brief period	1	2	3	4
16. I can interrupt my work if I so require	1	2	3	4
17. I can determine my own work rate	1	2	3	4
18. My job requires that I learn new things	1	2	3	4
19. My job involves a lot of repetitive work	1	2	3	4
20. My job requires me to be creative	1	2	3	4
21. My job requires a high level of skill	1	2	3	4



22. I get to do a variety of different things in my job	1	2	3	4
23. I have an opportunity to develop my own special abilities	1	2	3	4
24. I can determine the moment when I start and stop work	1	2	3	4
25. I can determine when I need a break	1	2	3	4
26. I am familiar with my work schedule more than a month in advance	1	2	3	4
27. I can determine when I wish to take my days off	1	2	3	4
28. My job security is good	1	2	3	4
29. My prospects for career development and promotions are good	1	2	3	4
30. In five years my skills will still be valuable	1	2	3	4
31. The atmosphere at the workplace is good	1	2	3	4
32. People at work frequently irritate me	1	2	3	4
33. If I so require, I can call on the assistance of one or more of my colleagues	1	2	3	4
34. The daily management under which I work is good	1	2	3	4
35. My opinion is sufficiently taken into consideration by the daily management	1	2	3	4
36. The daily management has an accurate impression of how I work	1	2	3	4
37. The daily management gives me enough support in my work	1	2	3	4
38. I am sufficiently informed of the developments within the University	1	2	3	4

THE GENERAL HEALTH QUESTIONNAIRE

GHQ 28

David Goldberg

Please read this carefully.

We should like to know if you have had any medical complaints and how your health has been in general, over the past few weeks. Please answer ALL the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions.

Thank you very much for your co-operation.

Have you recently

A1 – been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2 – been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3 – been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4 – felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5 – been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6 – been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7 – been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual

B1 – lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2 – had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3 – felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4 – been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5 – been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6 – found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7 – been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual

C1 - been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2 - been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3 - felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4 - been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5 - felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
C6 - felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7 - been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

D1 - been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2 - felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3 - felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4 - thought of the possibility that you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5 - found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6 - found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7 - found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

A B C D TOTAL

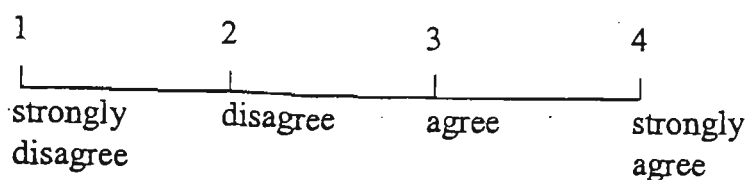
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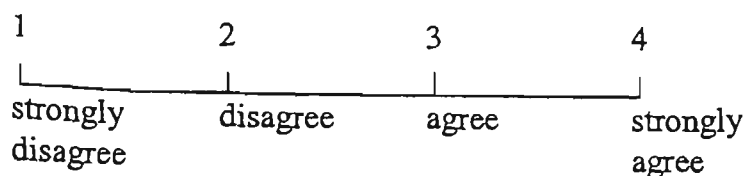
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This scale consists of 33 items and is to be completed **TWICE**. First, think of the team in which you are currently working. Please read each item carefully, then circle the answer which most closely reflects your feelings in relation to that team, using the following scale. Then, go back and complete the questionnaire again, this time in relation to the University of Ballarat.



	Team				University			
1. I often wonder if there is any place where I really fit in	1	2	3	4	1	2	3	4
2. I am just not sure if I fit in with my work colleagues	1	2	3	4	1	2	3	4
3. I would describe myself as a misfit in most social situations	1	2	3	4	1	2	3	4
4. I generally feel that people accept me	1	2	3	4	1	2	3	4
5. I feel like a piece of a jigsaw puzzle that doesn't fit into the puzzle	1	2	3	4	1	2	3	4
6. I would like to make a difference to people or things around me, but I don't feel that what I have to offer is valued	1	2	3	4	1	2	3	4
7. I feel like an outsider in most situations	1	2	3	4	1	2	3	4
8. I am troubled by feeling like I have no place in this team/organisation	1	2	3	4	1	2	3	4
9. I could disappear for days and it wouldn't matter to my colleagues	1	2	3	4	1	2	3	4
10. In general, I don't feel a part of the team/organisation	1	2	3	4	1	2	3	4
11. I feel like I observe life at work rather than participate in it	1	2	3	4	1	2	3	4
12. If I died tomorrow, very few people would come to my funeral	1	2	3	4	1	2	3	4
13. I feel like a square peg trying to fit into a round hole	1	2	3	4	1	2	3	4
14. I don't feel that there is any place where I really fit in this team/organisation	1	2	3	4	1	2	3	4
15. I am uncomfortable knowing that my background and experiences are so different from those who are usually around me	1	2	3	4	1	2	3	4
16. I could not see or call my colleagues for days and it wouldn't matter to them	1	2	3	4	1	2	3	4



	Team				University			
17. I feel left out of things	1	2	3	4	1	2	3	4
18. I am not valued by or important to my colleagues	1	2	3	4	1	2	3	4
19. It is important to me that I am valued or accepted by others	1	2	3	4	1	2	3	4
20. In the past, I have felt valued and important to others	1	2	3	4	1	2	3	4
21. It is important to me that I fit in somewhere in this team/ organisation	1	2	3	4	1	2	3	4
22. I have qualities that can be important to others	1	2	3	4	1	2	3	4
23. I am working on fitting in better with those around me	1	2	3	4	1	2	3	4
24. I want to be a part of things going on around me	1	2	3	4	1	2	3	4
25. It is important to me that my thoughts and opinions are valued	1	2	3	4	1	2	3	4
26. Generally, other people recognise my strengths and good points	1	2	3	4	1	2	3	4
27. I can make myself fit in anywhere	1	2	3	4	1	2	3	4
28. All of my life I have wanted to feel like I really belonged somewhere	1	2	3	4	1	2	3	4
29. I don't have the energy to work on being apart of things	1	2	3	4	1	2	3	4
30. Fitting in with people around me matters a great deal	1	2	3	4	1	2	3	4
31. I feel badly if others do not value or accept me	1	2	3	4	1	2	3	4
32. Relationships take too much energy for me	1	2	3	4	1	2	3	4
33. I just don't feel like getting involved with people	1	2	3	4	1	2	3	4

The questions in this scale ask you about your feelings and thoughts during the last month. For each question choose from the following alternatives and circle the most appropriate number:

0	1	2	3	4
never	almost never	sometimes	fairly often	very often

In the last month, how often have you

- | | | | | | |
|---|---|---|---|---|---|
| 1. been upset because of something that happened unexpectedly? | 0 | 1 | 2 | 3 | 4 |
| 2. felt that you were unable to control the important things in your life? | 0 | 1 | 2 | 3 | 4 |
| 3. felt nervous and "stressed"? | 0 | 1 | 2 | 3 | 4 |
| 4. dealt successfully with irritating life hassles? | 0 | 1 | 2 | 3 | 4 |
| 5. felt that you were effectively coping with important changes that were occurring in your life? | 0 | 1 | 2 | 3 | 4 |
| 6. felt confident about your ability to handle your personal problems? | 0 | 1 | 2 | 3 | 4 |
| 7. felt that things were going your way? | 0 | 1 | 2 | 3 | 4 |
| 8. found that you could not cope with all the things that you had to do? | 0 | 1 | 2 | 3 | 4 |
| 9. been able to control irritations in your life? | 0 | 1 | 2 | 3 | 4 |
| 10. felt that you were on top of things'? | 0 | 1 | 2 | 3 | 4 |
| 11. been angered because of things that happened outside of your control? | 0 | 1 | 2 | 3 | 4 |
| 12. found yourself thinking about things that you have to accomplish? | 0 | 1 | 2 | 3 | 4 |
| 13. been able to control the way you spend your time? | 0 | 1 | 2 | 3 | 4 |
| 14. felt difficulties were piling up so high that you could not overcome them? | 0 | 1 | 2 | 3 | 4 |

MBI Human Services Survey

The purpose of this survey is to discover how various persons in the human services or helping professions view their jobs and the people with whom they work closely. Because persons in a wide variety of occupations will answer this survey, it uses the term *recipients* to refer to the people for whom you provide your service, care, treatment, or instruction. When answering this survey please think of these people as recipients of the service you provide, even though you may use another term in your work.

On the following page there are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way *about your job*. If you have *never* had this feeling, write a "0" (zero) before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

Example:

HOW OFTEN:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

HOW OFTEN

0 - 6

Statement:

_____ I feel depressed at work.

If you *never* feel depressed at work, you would write the number "0" (zero) under the heading "HOW OFTEN." If you *rarely* feel depressed at work (a few times a year or less), you would write the number "1." If your feelings of depression are fairly frequent (a few times a week, but not daily) you would write a "5."



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MBI Human Services Survey

HOW OFTEN:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

HOW OFTEN
0 - 6

Statements:

1. _____ I feel emotionally drained from my work.
2. _____ I feel used up at the end of the workday.
3. _____ I feel fatigued when I get up in the morning and have to face another day on the job.
4. _____ I can easily understand how my recipients feel about things.
5. _____ I feel I treat some recipients as if they were impersonal objects.
6. _____ Working with people all day is really a strain for me.
7. _____ I deal very effectively with the problems of my recipients.
8. _____ I feel burned out from my work.
9. _____ I feel I'm positively influencing other people's lives through my work.
10. _____ I've become more callous toward people since I took this job.
11. _____ I worry that this job is hardening me emotionally.
12. _____ I feel very energetic.
13. _____ I feel frustrated by my job.
14. _____ I feel I'm working too hard on my job.
15. _____ I don't really care what happens to some recipients.
16. _____ Working with people directly puts too much stress on me.
17. _____ I can easily create a relaxed atmosphere with my recipients.
18. _____ I feel exhilarated after working closely with my recipients.
19. _____ I have accomplished many worthwhile things in this job.
20. _____ I feel like I'm at the end of my rope.
21. _____ In my work, I deal with emotional problems very calmly.
22. _____ I feel recipients blame me for some of their problems.

(Administrative use only)

cat.

cat.

cat.

EE: _____ DP: _____ PA: _____