associated with human service work (Cherniss, 1980, Cherniss et al., 1976, 1978). As an example of the current progress on burnout which has emerged as a result of theory and research moving forward concomitantly, the cybernetic approach of Heifetz and Bersani (1983) has unusual value. Typical of the more contemporary models, there is no firm linear relationship between stress and burnout, and the model is integrative in character. Heifetz and Bersani (1983) regard the occurrence of burnout not so much as a direct result of job stressors, but as a deficit in certain key professional elements. This is in line with other deficit models which are mentioned below. According to the Heifetz and Bersani model (1983) professionals' subjective experience of growth, in their clients and themselves, is strongest when it consists of the perception of milestones being approached, attained and passed (Farber, 1983). These milestones may be disrupted in certain ways, for example if goals are not clearly defined, and there are no short-term indications of progress between provider and client. Therefore it is not, as the majority of theories contend, prolonged close contact with and the emotional investment in people's problems that causes burnout, but the investment which produces insufficient dividends.

"And the most highly valued dividends are the developmental gains of the client, not the client's expression of appreciation for those gains." (Farber, 1983: 58)

Clients who do not progress are seen to deprive service providers of the essential psychological nutrient they require, and invariably service is withdrawn. The attempts to render service are in effect suffocated and the provider's retreat results as a means of dealing with his or her ineffectiveness. This evidence of lowered self-efficacy and competence accords with the views of Cherniss
(1980), Farber (1983), and Harrison (1983). Here again it may be seen that self-efficacy belief and achievement motivation are noted as factors relevant to burnout.

The discrepancy between the demands and capacities of the provider are explained (Heifetz and Bersani, 1983) as producing four different psychological states, for the provider, that lead to burnout: boredom or routinisation of the job; undue relaxation, where the provider's capacities require extensive mobilisation; a challenge to equate what needs to be done with what can be managed; overwhelming, where the provider is rapidly depleted by the demands and possible futility of the task. Client and provider growth is strongest when the milestones are passed successfully. However, where these psychological states become manifested the milestones in effect involve a progression from challenged, to relaxed, to bored, and all three components - the endeavour, the provider, and the client - become burned out. The cybernetic approach should stimulate valuable research.

Continuing on the subject of the 'deficit' theories of burnout, a further topic which requires in-depth investigation is the relationship between burnout and choice of career. Osipow (1983) postulates that vocational choice represents an expression of personal needs and values, yet turnover among teachers has indicated a frustration or lack of fulfilment in this regard. As an example, Cherniss and Krantz (1983) have emphasised lack of motivation as a factor, where burnout starts not with stress, but with loss of commitment and moral purpose in one's work. With further research, it
might be possible to obviate burnout to a greater extent if it were possible to predict more accurately those workers who would succumb to burnout in certain fields. Those more vulnerable may require strengthening in certain personality characteristics, (such as those being investigated in the present study). There is also an indication that factors in the training of professionals can influence the likelihood of burnout (Wilder and Plutchik, 1982) and this requires further work in the field of education.

In general, examples of the more recent research work in the human services and organisational areas have demonstrated that the focus has moved from discrete issues to more integrative approaches. Burnout models need to include not only personal and environmental factors, but their interactional effects as well, and they have to be comprehensive enough to include wider social and cultural issues. The most comprehensive models emphasise the interactive nature of individual, organisational and social variables.

As an example of a potential area of research, there is little empirical evidence presently linking burnout and productivity, although this would seem a logical line of enquiry. Farber (1983) notes that the relationship of burnout to productivity demands may be different for workers in different fields, and the impact of burnout on production may also vary according to the extent of burnout.

A further area of concern would be to establish whether burnout abates, even without intervention, with the passage of time. As yet there are relatively few longitudinal studies of burnout, and this
issue requires investigation because it is difficult to ascertain causal inferences of burnout without this type of research.

Abundant research is presently being carried concerning social support as a moderator of burnout and among the investigators are Bluen (1986), Cherniss and Krantz (1983), Etzion (1984), Farber (1983), Fibkins (1983), Pavett (1986), Pines (1983), Russell et al (1987), Scully (1983) and Shinn (1982). However, as burnout is usually conceptualised as constituting at least three different components, and manifesting itself in different stages, it is possible that social support may provide more beneficial consequences at one stage rather than another, and have more potential as an antidote for burnout rather than as an intervention strategy. Perhaps studies should aim to place more emphasis on interaction effects of variables, for example marital difficulties combined with role structure problems. Organisational support also requires further investigation in its role in offsetting burnout, according to Cherniss (1980, 1983), Fibkins (1983) and Ianni and Reuss-Ianni (1983).

While a proliferation of work is now being conducted on the working individual in the industrial setting (Cherniss, 1980; Etzion, 1984; Glick, 1983; Jackson and Schuler, 1983; Lang, 1985; Paine, 1982; Perlman and Hartman, 1982; Pines and Aronson and Kafry, 1981), much of the outcome is directed toward intervention, that is, dealing with the outcomes of stress and burnout from the viewpoints of individual and organisation. This incorporates the devising and implementing of organisational changes and training programmes, and the tackling of remediation. However, further research is still needed on coping mechanisms (Perlman and Hartman, 1982), the mediating role of coping
(Folkman, 1982), and the empirical demonstration of the effectiveness of various coping strategies (Newman and Beehr, 1979) with regard to burnout. The current study aims to contribute to the literature by investigating the role of self-efficacy belief, achievement motivation and hardiness in cognitive coping strategies.

Research on personality variables in burnout prevention remains scanty, although a need for this has been identified (Hogan and Hogan, 1982; Meier, 1983; Perlman and Hartman, 1982), especially in terms of their possible interactive effects (Maslach and Jackson, 1984a). In contrast research has typically focused on those variables that operate as antecedents, such as Type A behaviour tendencies, life change, high idealism, and external locus of control, which make individuals vulnerable to stress and burnout, and also research into how they cope with it (Friedman and Rosenman, 1974; Glass, 1977; Innes and Clarke, 1985; Kobasa, 1982; Morse and Furst, 1979; Pines and Aronson, 1981; Rotter, 1966; Sheehy, 1974, 1981; Strümpfer, 1983a, 1983b, 1984). So far research has failed, with the possible exception of Kobasa (1982), to identify additional personality variables which constitute intra-personal resources that could perhaps prevent burnout from occurring. This may be due to a current high demand to 'cure' the effects of burnout, at the expense of research efforts aimed at its prevention. The aim of the present study is therefore to contribute to this area of knowledge.

More emphasis needs to be placed on research which focuses on moderators of the stress-burnout relationship. Though the swing has recently been toward moderator variables, at present situational (for
example, supervisor support) and environmental/social (for example, social support) issues have been addressed at the expense of personality variables. As certain of these are anticipated to act as moderators of the stress-burnout relationship in the present study, it is thus an opportune time to discuss personal variables in more detail.
4. PERSONALITY VARIABLES IN THE STRESS-BURNOUT RELATIONSHIP

Of the literature and research relating to the burnout-prone type of personality, it is helpful to review what is already known of variables as antecedents to burnout, and the empirical research that has been undertaken concerning possible moderators, bearing in mind that the present research is aimed at the prevention of burnout.

4.1 Burnout-prone personality factors

In terms of demographic characteristics, women tend to experience more emotional exhaustion than men (Gaines and Jermier, 1983; Maslach, 1982a; Maslach and Jackson, 1981) although no difference in intensity was found by Gaines and Jermier (1983), and depersonalisation has been found a greater problem for men (Maslach, 1982a). Cross-cultural studies show that blacks tend not to burn out as much as whites (Maslach, 1982a), while with regard to age, younger people experience more burnout than older workers (Maslach, 1982a). Of all the variables, age is cited by Maslach (1982a) as having the clearest association with burnout. Increased age rather than years spent at work appears to incorporate a more balanced perspective on life, and with it a greater stability and maturity. Single people
tend to experience more burnout than marrieds, and although children are an additional emotional and financial burden, professionals with families appear to experience less burnout. Maslach (1982a) contends that this is because married people with families tend to be older, and are therefore more psychologically mature than younger people. People with differing amounts of education do not show marked differences with respect to burnout, but the differences are complex and open to a variety of hypotheses (Maslach, 1982a).

Cherniss (1980), Freudenberger (1980) and Maslach (1982a) offer the most comprehensive profiles of the burnout-prone individual. Somewhat incongruously, although burnout is frequently the product of bad situations, individuals often tend to explain situational stress in personal terms. Instead of blame being deflected on to the environment, the reaction is typically one of self condemnation and inadequacy (Maslach, 1982a): while the situational stresses may be acknowledged, some personal failing 'confirms' the individual is at fault. The tendency to overestimate the importance of personal factors while simultaneously underestimating situational ones is termed fundamental attribution error (Maslach, 1982a). Blaming the self and blaming the other person allow the contribution of the situation to burnout to be minimised or ignored. Situation is an important contributor, but individual personal motives and traits increase the vulnerability to burnout.

Individuals vary in the intensity and frequency of their experience of burnout, as it does not occur for all people all of the time. For this reason some of the following profiles may appear contradictory.
However, there is general agreement that burnout can be experienced by the majority of individuals and that everyone can be measured for it to some degree. Cherniss (1980) and Freudenberger (1980) have described those most susceptible as self-motivated high achievers; also those who are idealistic or devoted to particular causes, who have started with high expectations (which are often unrealistic) but refused to compromise on the way. Very often self-esteem is particularly dependent on a high level of success, and the stress experienced by these people is predominantly job-related. Burnout-prone individuals are typically competent and self-sufficient, and hide their weaknesses well in their continuing attempts to cope with stress. When the situation becomes insurmountable through the accumulation of stressful experiences, burnout is experienced.

Equally, there are those researchers who describe the individual in converse terms. Maslach (1982a) describes the burnout-prone individual as one who is weak and unassertive in dealing with people, submissive, anxious and fearful of too much involvement. Control over a situation is often difficult and the person may be impatient and intolerant, easily angered and frustrated, and may be one who lacks self confidence and displays little ambition, while still carrying on in a reserved and conventional fashion. This person has neither a clearly defined set of goals nor the determination and self assurance to achieve them. Challenges are not confronted with enterprise and assertion, but met with acquiescence and over-accommodation.

It is important to realise that individuals do not exhibit all the clear-cut characteristics of these two profiles, and so
characteristics should be considered separately to give a clearer understanding of how they are linked to the burnout syndrome.

Self concept is an important issue. Lack of confidence leads to indeterminate action and lack of power and control in situations which require innovation and assertion. Low self-esteem allows obstacles to appear more difficult than they are, and lack of drive and determination exacerbate the situation. One’s poor judgement of self perpetuates a preoccupation with failure rather than success. A constant hesitation to recognise one’s self worth inevitably requires moral and social support, and positive feedback to boost one’s own morale, and if these are not forthcoming, vulnerability to burnout increases. Self concept is partly the recognition of one’s limits and responsibilities: ignorance of limits means they can be easily exceeded and result in emotional overload, and an overly exaggerated sense of responsibility can result in fantasies of omnipotence and unreality. Discrepancies between aspirations and achievements are sure to follow, accompanied by feelings of failure and the tendency to burn out. (Maslach, 1982a). This suggests that people with a realistic understanding of their abilities and self-efficacy might be less likely to experience the effects of burnout.

All individuals have certain psychological needs that they strive to fulfil, and though these may vary in importance among individuals they are common to everyone. The strength of the needs and whether or not they are satisfied have important burnout implications. Individuals need to be approved of and liked, and where there are few alternative sources of affection the need to be liked at work may become excessive. Cherniss (1980) points out that those who are overly
flexible at work are more susceptible to stress and burnout, because they find it difficult to turn down the extra demands made upon them by others. Cherniss (1980) has also identified introverts as experiencing extra tension in high role conflict situations. As a result they are more likely to withdraw in the face of conflict and stress, which in turn impedes effective coping and conflict resolution. Neurotic anxiety is another constellation of traits identified by Cherniss (1980) as making individuals susceptible to stress and burnout.

Achievement can also become a critical issue where the need to achieve becomes an overriding factor. Kahn et al (1964) describes three types of achievement motivated individuals: those whose satisfaction comes primarily from doing their work well; those to whom status and career advancement are the important factors; and those whose most important reward is security. The status oriented group experience more tension in role conflict situations, but the expertise oriented individuals are probably more susceptible to the stress associated with role conflict in the long term.

Occasionally, the quest for achievement can take a compulsive role, and in some cases the individual feels it may be the only way to maintain self-esteem. Professional obligations may be utilized to project the sought-after image, but they also serve to deprive the individual of the opportunity for recreation and family/friend relationships. In this situation depression can emerge as a result (Maslach, 1982a). In the alternative extreme case, individuals set themselves up for failure through unrealistic or vague goals, to the
detriment of their sense of competence and self-esteem. Here again, if the goals are clear, realistic, and monitored, the need for achievement could have beneficial effects. There can be no set limit, because for each person the degree of need to achieve is an individual one.

An excessive need for control is linked to the authoritarian personality (Adorno et al., 1950; Freudenberger, 1980) and here the individual tends to refuse to delegate and is particularly prone to burnout because he or she inevitably attempts to accomplish too much. Such overextension of the self, plus a power-based orientation toward people, can result in the callous cynicism and depersonalisation involved in burnout.

Personal motivations are varied and need not evolve from altruism or selfless motives. They may result from noble ideals, or commitments designed to deliberately elicit praise and recognition; they may also arise from guilt feelings, or the endeavour to gain a sense of self worth, or the need for intimacy. However, if they occur for the wrong reasons, such as self gratification, the client (in the case of a human service professional) is ultimately providing for the needs of the caregiver, who in turn may experience frustration by not receiving what he or she wants from the situation. This frustration may then be expressed by hostility and cynicism, accompanied by depression (Maslach, 1982a).

Maslach (1982a) expands on the concept of emotional control and emphasises its importance in avoiding emotional exhaustion. Denying
or failing to confront fears causes the individual to be ineffective in his or her work and to become emotionally unhealthy, while impatience can cause a high level of emotional exhaustion and a loss of perspective. Cognitive empathy is important when working with people, but emotional empathy can lead to a loss of personal control, and hence to emotional exhaustion.

The foregoing observations of burnout-prone characteristics suggest that the individual who is least at risk is one who displays autonomy and personal control (Maslach, 1982a). When people feel powerless they allow situational demands to mould their actions, and learn to believe that they are helpless and the situation hopeless. Voice, initiative and action, on the other hand, are the strategies of personal power used to cope with symptoms of burnout. All individuals desire a good self image, and all require to fulfill certain psychological needs and motivations, but the key issue is that these must be achieved in a balanced and controlled way. There must be a balance between giving of oneself and giving to oneself, because by recognising limits and acknowledging needs, overextension need not occur (Maslach, 1982a). The concepts of detached concern and cognitive empathy illustrate this point well: both are necessary to facilitate a productive outcome, but should not be allowed to develop to the point of either callousness or emotional exhaustion.

Particular emphasis has been placed on power versus helplessness in the person resistant to burnout; burnout is a greater risk for those who feel powerless, because they are trapped by demands yet may be too weak and unassertive to be autonomous and take control. Control, and
thereby power, lies at the basis of the three variables studied in this research: hardiness, self-efficacy belief and achievement motive. Though many personality traits may involve an element of control, it is an essential prerequisite for hardiness, self-efficacy belief and achievement motivation.

Hardiness incorporates the concept of control rather than helplessness, and the hardy personality recognises demands to require a measured commitment, and views them as constituting challenge rather than threat. The hardy individual could therefore be viewed as one who displays autonomy and exercises active control in turning stress situations into positive experiences. Hardiness is, in effect, a strategy for coping; it can further be described as a cognitive mechanism that mediates behaviour.

It is known that the individual who lacks self-esteem and confidence, and who does not have a clearly defined set of goals nor the self assurance to achieve them, is more at risk from burnout (Maslach, 1982a). Broadly speaking, belief in one's self-efficacy involves positive expectations about outcomes and abilities, and therefore self-efficacy beliefs are expectations of personal mastery based on previous successful experiences (Bandura, 1977). In cases of high expectations of personal mastery, the individual has a greater sense of autonomy and power and so confidently engages in choice, initiative, and the actions which are known to bring positive consequences. This individual, then, constructively counteracts helplessness and the attitudes typically associated with burnout, and it follows that the person with a high degree of self-efficacy
belief, backed by the necessary skills and incentives, should be less susceptible to burnout. Again, this characteristic incorporates the notion of a cognitive mechanism that effects successful coping behaviour. Since self-efficacy belief is tempered by experience, it should not increase the likelihood of burnout.

Inherent in the concept of autonomy and power is the will to achieve. Achievement motive is required in order to establish one's personal success, attain self-esteem and confidence, and be able to act in an autonomous fashion, which in Maslach's (1982a) terms describes the person less likely to experience burnout. To attain these qualities in turn requires persistence and determination in the face of change, and it follows that achievement motive is in respects similar to the hardiness dimensions of commitment, control and challenge. It is also similar to outcome expectancies of self-efficacy belief in that the commitment has a motivating function (Bandura, 1977). General characteristics of individuals with high achievement motive, according to McClelland (1961) are their willingness to exert themselves in instrumental activity to attain their goals, such as long range planning, and taking responsibility for their actions. These people tend to be self confident, enjoy responsibility, resist social pressure and be willing to take moderate risks in situations where success depends on ability. These activities imply the power and autonomy shown to be important in mitigating burnout, and once again incorporate the cognitive elements basic to coping behaviour.

Having assessed characteristics of the burnout-prone personality, and accepting Maslach's (1982a) contentions that autonomy, balance and
control provide a good foundation for not becoming burned out, it is reasonable to suggest that the personal variables of hardiness, self-efficacy belief and achievement motive represent potential moderators of burnout. The three variables are now discussed in greater detail.

4.2 Hardiness, self-efficacy belief, and achievement motive as moderators

HARDINESS In 1979 Kobasa introduced a new concept which attempted to explain why some persons are impervious to the debilitating effects that can arise through stressful life events, and it is only comparatively recently that the role of moderating variables has been introduced into this type of research. Working initially with a group of male executives, specific personality characteristics emerged which Kobasa (1979) conceptualised as a dimension of the personality that she termed 'hardiness'. Kobasa (1979) proposed that the variable of hardiness consisted of three components: commitment, control and challenge. Commitment to self implies that there is meaning to life in terms of personal goals, while commitment to others implies involvement and a sense of community. Kobasa (1982) describes committed people as those having the skill and desire to cope successfully with stress.

Control represents the belief that one is responsible or can influence one's experiences and life events, and serves as a moderator of stress for two reasons: the possibility for manipulating adverse
circumstances exists because individuals have the potential to choose and decide on their actions; control is indicative of coping skill. Challenge involves the idea that change is an inevitable and positive phenomenon with potential for personal growth (Kobasa, 1979, 1982). Because change invites exploratory behaviour (Kobasa, 1979; Maddi, Hoover and Kobasa, 1982) individuals are cognitively flexible and adept at discovering ways to cope with stress.

Kobasa originally investigated the moderating effect of hardiness as a composite construct in buffering the effects of life stresses such as illness (Kobasa, 1979; Kobasa, Maddi and Courington, 1981; Kobasa, Maddi and Kahn, 1982; Kobasa and Puccetti, 1983) among male managers and executives. When samples other than executives were studied, such as male lawyers (Kobasa, 1982) only the commitment component moderated the relationship between stress and illness. Working with a sample of female undergraduates Ganellen and Blaney (1984) found only commitment and challenge significantly moderated stress; they found that these two components correlate highly with social support (which was also investigated in the same study) whereas control does not, and suggest that previous studies purporting to establish social support as a moderator may indirectly have measured hardiness rather than social support.

Other studies have investigated the interactive effects of hardiness and proposed stress-moderating variables (Bluen, 1986; Kobasa, Maddi and Puccetti, 1982; Kobasa and Puccetti, 1983; Kobasa, Maddi and Zola, 1983; MacEwen and Barling, 1986; Maddi and Kobasa, 1984; Schmeid and Lawler, 1986) in particular social support.
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The research findings of hardiness do not yet appear to be generalisable to women. The sample used by Canellen and Blaney (1984) was not representative of the general female population. In general, the hardiness research has been confined to executives, lawyers, or other specific male populations. However, Schmeid and Lawler (1986) recently investigated the interactive effects of hardiness and Type A behaviour on a group of 82 working women (secretaries), but found no hardiness main effects, nor interactions between stress and the other two variables. No difference in hardiness composition was found in either the high stress/high illness or high stress/low illness groups. Therefore for these women hardiness did not duplicate the previously reported finding that hardiness acts as a buffer between stress and illness, but again, secretaries constitute a distinct population. In women hardiness may be more relevant to mental than to physical health. Schmeid and Lawler (1986) also suggest that the personality characteristics that constitute hardiness in men may be of a different composition in women. Further research is recommended for a more diverse female population, and one that encounters greater challenge and control than secretarial work.

So far no known study has investigated the moderating effect of hardiness in burnout. However, hardiness constitutes a mechanism which allows for transformational coping rather than regressive coping. Transformational coping involves altering events so that they are perceived as less stressful. The individual accomplishes this by interacting with the events, thinking about them optimistically, and by acting upon them in a decisive way, so changing them in a less
stressful direction (Maddi and Kobasa, 1984). To reiterate, regressive coping involves thinking about events pessimistically and acting evasively to avoid pertinent issues. It is ineffective in the long term and can serve to re-arouse and increase individual strain. Burnout may be conceptualised in these exact terms, as a method of regressive coping (Cherniss, 1980).

It is therefore hypothesised that hardiness in the individual is likely to increase the predisposition to transformational coping and discourage regressive coping, that is, burnout. It is expected to moderate the relationship between work-related stress and burnout.

**SELF-EFFICACY BELIEF** Bandura (1977) proposed his theory of self-efficacy belief based on the belief that behaviour modification derives from predominantly cognitive processes. Bandura (1976) originally investigated psychotherapeutic techniques involving symbolic and participant modelling to effect behaviour changes aimed at correcting or reducing avoidance behaviour. He then postulated (1977) that neurotic fears are more likely to be eliminated through the mediations of expectations of self-efficacy than by directly weakening anxiety response habits or attempting to extinguish fear arousal. Bandura's theorising was in keeping with cognitive theorists, who advocate that attention be directed towards subjective and internal aspects as the prime determinants of behaviour. Bandura (1977) maintains that self-efficacy theory integrates both a social learning approach and a cognitive paradigm, in that cognitive mechanisms explain the initiation, generalisation and maintenance of therapeutic change, yet the most powerful means of producing the change is by repeated performance.
Bandura (1977) proposed that self-efficacy beliefs were a key mechanism for all behaviour change, provided the contributions of skill (termed competence by Bandura) and incentives were accounted for. The belief refers to an individual's conviction that he or she can successfully master required tasks. According to Bandura, these beliefs differ in terms of the level of the task (i.e. magnitude or difficulty), in terms of their generality (generalisability to other tasks), and in terms of the individual's strength of conviction. Bandura (1977) contends that:

"Given appropriate skills and adequate incentives, ... efficacy expectations are a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations." (Bandura, 1977: 194)

He also states that the stronger the perceived self-efficacy, the more active the efforts will be. Those that persist and successfully accomplish will have their sense of self-efficacy reinforced. Bandura (1977) therefore stresses the importance of expectancy as an important mechanism in behavioural change.

Using the tenets of self-efficacy theory, Bandura (1977) explains that four main sources of information give rise to expectations of personal efficacy: past experiences of mastery; repeated success reinforces mastery expectations, and repeated failures lower them; strong expectations derived from repeated success generalise to other situations which are fear arousing. Successful performance must, however, be felt to be attributable to the individual's own efforts. Furthermore, although self-efficacy depends to some extent on competence, actual competence and perceived competence are not
invariably the same (Kazdin, 1978). Individual discrimination between situations also affects the experience of mastery, because success at easy tasks does not tax actual or perceived competence and so provides no basis for altering self-efficacy belief. Challenging tasks provide an adequate basis.

An important feature of the theory is Bandura's (1977) distinction between efficacy expectations and outcome expectations. Efficacy expectations refer to:

"... the conviction that one can successfully execute the behavior required to produce the outcome" (p 195)

while outcome expectancy is defined as:

"... a person's estimate that a given behavior will lead to certain outcomes." (p 195).

Individuals can therefore recognise that certain courses of action produce certain outcomes but may have personal doubts as to the adequacy of their own performance. Bandura (1977) maintains that expectations of personal mastery affect both the initiation and persistence of coping behaviour. Given strong expectations of success, individuals will persist despite obstacles and aversive experiences. If a situation exceeds their belief in the ability to cope, individuals will fear and tend to avoid such situations. However, Kazdin (1978) points out that the crucial issue here is a concern about consequences (outcomes) rather than self-efficacy belief.

According to Bandura (1977, 1978) self-efficacy theory has uses in explaining behaviour, although it is not the sole determinant,
predicting behaviour, and treating anxiety and maladaptive behaviours (Bandura, 1977; Borkovec, 1978); it also relates to the individual's ability to deal with prospective situations as opposed to threatening ones (Bandura, 1982): cognitions mediate environmental and behavioural elements. Furthermore, the theory is not restricted to the domain of psychotherapy (Bandura, 1977). More recently Bandura (1982) claims that the higher the level of induced self-efficacy, the higher the performance accomplishments and the lower the emotional arousal.

There have been numerous criticisms of Bandura's original (1977) theory, largely from the clinical viewpoint. He has been criticised for confining his theory to the social learning paradigm (Lang, 1978), and restricting it to a cognitive rather than performance based approach; failing to provide adequate empirical support for his statements (Borkovec, 1978; Eysenck, 1978; Kazdin, 1978); ambiguities (Eysenck, 1978; Kirsch, 1985); failing to generalise to alternative unexpected behaviours or behaviours other than fear provoking situations (Kazdin, 1978; Poser, 1978; Wilson, 1978); and generally on conceptual grounds (Borkovec, 1978; Eysenck, 1978; Wolpe, 1978). Possibly not enough emphasis has been laid on the importance of skill and incentives to self-efficacy theory (Kazdin, 1978, 1979; Wilson, 1978).

Poser (1978) maintains that it is important to know the mode of acquisition of phobias in each case prior to treating them, while Wolpe (1978) believes that it is the elimination of anxiety responses and not the mediation of self-efficacy belief that is therapeutic in
weakening such responses and eliminating neurotic fears, because it is the consequences that are feared. Bandura replies to many of the criticisms in his subsequent paper and later publications (1978, 1981, 1982). However, he may also be criticised for ascribing causal inference to correlational results (Aronson and Carlsmith, 1968; Johnson and Sarason, 1979; Tedhazer, 1982).

A main criticism of Bandura's research (Bandura, 1977; Bandura and Adams, 1977; Bandura et al, 1977) is that he utilizes specific convenient populations such as snake phobics whose lives are seriously affected through their fears. Consequently he assumes phobics are motivated to cure their phobias, whereas Poser (1978) points out that phobics who recover after four and a half hours' treatment are hardly likely to seek help in clinics where behaviour therapy is offered; in addition, phobias can be interpreted as attention seeking behaviours (Poser, 1978). Research relating to self-efficacy theory should extend to less specific sample populations.

A second major criticism is raised by Kazdin (1978) who argues that it is important to obtain a measure of the degree to which skill (competence) and incentives contribute to changes in behaviour. It is also relevant to consider to what extent subjects are willing to approach situations given sufficient incentives (Kirsch, 1985). Related to this point, a third major criticism of Bandura's research is that he limits his studies to one independent and one dependent variable, despite the fact that self-efficacy belief is associated with competence and incentive. Kazdin (1978) points out that:

"Additional assessment work will be needed to isolate self-efficacy as a specific construct and discriminate it from other constructs that might improve along with performance." (1978: 182)
More recently, studies have been conducted involving self-efficacy belief as one factor acting in association with other variables in predicting performance (Barling and Abel, 1983; Barling and Beattie, 1983; Barling and Bresgi, 1982; Beattie, 1981; Schunk, 1981).

Not only is it important to measure the contributions of competence and incentive for each individual in different contexts, but the interaction of the construct with other variables should also be assessed in research aimed at identifying behavioural mediators. For example, self-efficacy is conceptually related to the locus of control variable (Coppel, 1980; Crim, 1982; Rotter, 1966) because both are critical in coping behaviour and both refer to the conviction that reinforcements are contingent upon one's own behaviour (Folkman et al., 1979). As a further example, Feather (1961) has shown that persistence is linked in a complex way with achievement motive: high achievement-oriented individuals tended not to persist on a difficult (in fact insolvable) mental problem when they failed to be successful. When success was not immediately forthcoming the struggle to achieve control was rapidly abandoned (in Fisher, 1984), although it could be argued that high achievement-oriented individuals perceive that they can conserve time by moving on to an easier task.

Achievement motive and self-efficacy belief should logically be linked to one another because individuals with high self-efficacy expectations would not perform if they perceive little value and potential in the outcomes of behaviour (Bandura, 1978; Teasdale, 1978). Furthermore, Schunk (1979) views self-efficacy as relevant to
achievement motive because it can be viewed as essentially a motivational variable concerned with choice, effort, and behavioural persistence. Some studies have supported Bandura's views that the effects of motivational variables vary with the perceived difficulty of the task, and only become significant once requisite ability is present (Barling, 1978).

A further criticism relating to the research concerning self-efficacy belief is that despite the amount of discussion it has generated, together with more recent studies, it has failed to yield a comprehensive measure designed to overcome the deficiencies raised in the preceding paragraphs.

Harrlscn (1983) has pointed out that self competence is frequently a feature encountered in burnout literature. In his Social Competence Model of burnout he attempts to account for both motivation and the fact that burnout ensues primarily as a function of perceived competence. Cooper and Marshall's (1976) stress model has been applied to teachers of exceptional children to demonstrate that a lack of perceived success is a component of stress and eventual burnout (Weiszpf, 1980). It is clear that self-efficacy belief is closely related to competence orientation, and Pines and Aronson (1981) have discussed the process by which idealistic sensitive human service practitioners lose their sense of commitment in situations where they lack autonomy, control, a sense of competence and completeness, and rewards. Self-efficacy belief therefore also appears to be related to hardiness and burnout.
Meier (1983) takes this argument further by incorporating the concept of self-efficacy belief into his theory of burnout. Largely based on the work of Bandura, Meier (1983) defines burnout:

"... as a state in which individuals expect little reward and considerable punishment from work because of a lack of valued reinforcement, controllable outcomes, or personal competence" (p 899)

Expectations are therefore the product of self-environment interactions. In Meier's (1983) view, reinforcement expectations are a crucial factor, in addition to outcome expectations and efficacy expectations, in directly influencing the subjective experience of burnout. A measure of burnout could be developed which tests the three types of expectations as predictors of burnout for correlation with affective and behavioural measures of burnout.

Finally, self-efficacy belief is of relevance to burnout because it is involved in a wide range of adaptive life behaviours, which include coping, resignation in the face of failure, and achievement strivings (Bandura, 1982). One application of self-efficacy belief is in assertiveness training, because this to some extent engenders a sense of efficacy in the face of stress, which may generalise to feelings of self-confidence associated with resistance to stress (and subsequent burnout) (Holahan and Moos, 1985).

No known study has as yet directly measured the contribution of self-efficacy belief in preventing burnout. A further motivation for hypothesising that this variable may serve as a moderator of the stress-burnout relationship lies in its close association with hardiness: self-efficacy belief incorporates the notion of proven ability (competence), and it facilitates constructive thought and
action in dealing with stressful events. The individual may draw on his or her experience when thinking in optimistic terms, acting decisively, and essentially altering events so that they are perceived as less stressful. In other words, a belief in one's self-efficacy should enhance the likelihood of transformational coping rather than regressive coping, and so decrease the predisposition to burn out.

ACHIEVEMENT MOTIVATION

Unlike the concepts of hardiness and self-efficacy belief, which have been introduced relatively recently, the work of Murray during the 1930's (in Weiner, 1980) has been arbitrarily chosen as a starting point for discussing the main components of achievement motivation theory. Murray both drew attention to the concept of a human need for achievement, and developed the psychodynamically oriented Thematic Apperception Test (TAT) to assess various need states.

McClelland (1953) and Atkinson (1957) may be regarded as the main exponents of achievement motivation theory as it has been developed today, and Atkinson's model in particular generated the abundant research that materialised during the 1950's and 1960's.

Based on a theoretical perspective, McClelland focused on personal motivation patterns in terms of their relevance to managerial growth and economic development, and the role of achievement motivational needs in stimulating societal growth, while Atkinson (1957) concentrated on the experimental study of achievement motivation.
The concept of achievement motivation is based on the idea of individual differences, (Weiner, 1980). Both McClelland and Atkinson (in Fisher, 1984) suggest that achievement motivation is not uniform across individuals. Theories seek to predict how well people will perform on tasks involving achievement, which tasks they prefer, and how long they will persevere at one task before switching to another. Atkinson’s theory is based on a conflict model: the difference between individuals is conceptualised as a function of two personality traits, the need for achievement and success (approach tendency), and the fear of failure (avoidance tendency). Achievement oriented individuals are more likely to seek achievement-related activity, whereas fear of failure individuals are more likely to seek protection from it. However, there is a further difference: the former tend to prefer and then to persist with tasks of intermediate difficulty, where success is possible and failure unlikely, but where interest and challenge are both in evidence. By contrast the latter will usually choose either very easy or very difficult tasks: in the first case they cannot fail, and in the second they have an excuse because they could not be expected to succeed (Atkinson and Feather, 1966, in Fisher, 1984).

Weiner and his associates (1971) theorised that high and low achievement oriented individuals could be distinguished on the grounds of personal control. An appraisal is made of the task at its onset, which affects willingness to undertake the task. The important decision concerns whether control is internal because personal ability is involved, or external because task success is dependent on luck rather than skill.
Internal locus of control tends to correlate with high achievement orientation (Weiner et al, 1971). Based on this formulation of causal attribution, Kukla (1972) presented a task consisting of predicting the next number in a series. High achievement individuals attributed successful predictions to skill and ability while low achievement individuals correctly attributed success to chance. In terms of persistence, high achievement individuals tended to perceive failure as a result of lack of effort and were more likely to persist, compared with the low achievement group which decided control of the outcome was unlikely and therefore gave up more easily. Kukla (1972) maintains that individuals high in achievement needs take personal responsibility for success and generally perceive themselves as high in ability. Feelings of worth are enhanced by such a self attribution for success, and this may protect individuals from burnout (Maslach, 1982a). Achievement motive has major links with sense of control, itself a prerequisite for autonomy, and this further suggests that individuals high in achievement motivation would tend to be less burnout-prone than persons low in achievement motivation.

It is not known (Weiner, 1980) whether the need for achievement generalises to activities other than the ones where achievement type behaviour is already exhibited, although a recent study involving athletic performance and academic achievement suggests that certain aspects (modalities) of achievement motive may be common to both spheres of activity (Elizur, 1986). Regarding the stability of achievement needs, the necessity of longitudinal testing has yielded few research investigations (Weiner, 1980).
Atkinson (1964) specified two determinants of 'approach' behaviour in his achievement motivation theory in addition to the need for achievement, which show a resemblance to the theory of self-efficacy belief (Bandura, 1977). These are the probability of success, and the incentive value of success.

Probability of success "... refers to a cognitive goal expectancy or the anticipation that an instrumental action will lead to the goal" (Weiner, 1980: 192) and is eq. to outcome expectancy. Atkinson (1964) contends that subject probability increases as a function of the number of regarded trials. In terms of self-efficacy belief theory, expectations of personal mastery or strong expectations of success will prompt individuals to persist despite obstacles and aversive situations that may arise. Atkinson also states that early and late trials exert special influence on the formation of goal anticipations, according to Weiner (1980), and this may have implication in techniques concerned with the teaching and development of achievement motivation.

The incentive value of success is based on valence theory, and Atkinson (1964) describes it in terms of an affective cognition, "pride in accomplishment" (Weiner, 1980: 193), with greater pride being experienced following success at a difficult task than after success at a simple one. Achievement motive itself may be conceptualised as an affective disposition (Atkinson, 1954). However, it could be argued that value of success can be regarded in terms of intrinsic or extrinsic success, and incentives, as well as pride.
In Atkinson's (1964) model, the tendency to indulge in an achievement oriented activity would be the result of the three determinants of approach behaviour outweighing those of avoidance behaviour. Achievement behaviour is therefore epitomised by the tendency to approach behaviour plus extrinsic motivation.

More recently Atkinson and his associates (1976) extended the dynamic properties of the original theory by producing a conceptual schema which implies systematic change rather than constancy in the individual's lifetime. It also incorporates the influence of environmental and hereditary factors, motivational variation, abilities and the reciprocal effects of aptitudes and motivational variables (Anastasi, 1976: 356).

More recent research findings have indicated that the criterion of the possibility of future success also mediates the motivation of immediate activities. Such factors as possessing high levels of 'concept attainment', the perceived importance of 'doing well', positive self-evaluation, competence and ability, all of which imply orientation toward the future, are now considered as an important addendum to the original Atkinson and Feather (1966) theory of achievement motivation (Atkinson and Rynor, 1978). In plain terms, the future can become an issue as to whether an individual is (or becomes) achievement motivated. Individuals high in the need for achievement (McClelland, 1953, 1961) are typically more willing to delay gratification and attain higher qualifications. This concept is equivalent to Kazdin's (1978) contention that a concern about consequences (outcomes) is an important factor in self-efficacy
belief. It also implies that achievement motivation may fluctuate throughout a person's lifetime, despite the belief held until recently that this is not the case (Atkinson, 1964; Feather, 1961; Kulick, 1978; Moulton, 1965; Zimmerman, 1973) unless wider economic conditions also change (McClelland and Winter, 1969).

Subsequent to his earlier theorising, McClelland (1953) gradually shifted his attention from the relationship between achievement need and economic growth to a social learning approach for explaining changes in behaviour. He attempted to identify child-rearing and environmental antecedents that accounted for individual differences in achievement motivation. This led to the cognitive developmental analysis of achievement during the 1970s. It is important, however, to acknowledge that relationships exist between achievement needs and the prevailing culture, and between achievement needs and social context. Achievement strivings may be affected by cooperation and competition, group formation, group goals and performance (Weiner, 1980) and recently it was shown (Vallerand et al, 1986) that competition can negatively affect children's intrinsic motivation in a mastery orientation activity. It was argued that losers of competitions experience a decrease in intrinsic motivation because they perceive themselves as less competent than the winners (even though it is often suggested that a competitive element forms a beneficial integral part of play). The study is mentioned because it contains elements which relate to self-efficacy belief, hardiness, and the Harrison (1987) Self-Competence Model of burnout, such as commitment and a sense of self competence. In all three variables a sense of control over one's actions is a common factor.
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There are some differences between Weiner's (1971) causal attribution analysis on achievement strivings, and Atkinson's (1964) theory. While Atkinson's model portrays the stimulus producing emotional anticipation (hopes/fears), which then results in an instrumental response such as 'pride in accomplishment' for highly motivated individuals, the Weiner model, which is shown diagrammatically in FIGURE 4, contends that affect follows cognitive appraisal.

"Hence, esteem-related affect, such as competence and pride, are experienced in success by high motive individuals because of their particular mediating beliefs about causality. Thus, the achievement motive is a cognitive, rather than affective, disposition." (Weiner, 1980: 388)

![Affective Response](attachment:diagram.png)

**FIGURE 4:** The attributional model of achievement motivation (from Weiner, 1980: 388)

An implication of the attributional model and its cognitive orientation is that achievement motivation can be aroused by inducing appropriate causal ascriptions (Weiner, 1980). This hypothesis was tested, and the study demonstrated that individuals attributing their success to internal factors exhibited behaviour associated with high achievement needs to a greater degree than subjects in the external success ascription condition. This implication has relevance in terms of the present study, because if the achievement motivation variable has potential as a burnout moderator, a subsequent line of enquiry could investigate possibilities for its enhancement.
Compared with self-efficacy belief, where there is limited research, the concept of achievement motivation has generated abundant research and literature. With regard to the present study, however, research relating to 'what motivates achievement motivation' is of greatest interest, and a few examples are included.

During the period when McClelland became more concerned with behavioural change than economic development, interest arose in relating the need for achievement to child-rearing practices. McClelland maintained that because affective arousal is more intense during infancy, and because small children do not readily discriminate, affective associations are apt to be strong and very resistant to unlearning and forgetting. Winterbottom (1958) found that boys who became high in achievement needs at an early age had mothers who expected early independence from their offspring. Though ascribed to parental attitude, it is not certain whether it was expectancies of independence, or the reinforcement of such behaviour by affection, that explained this behaviour. The boys with high achievement motivation enjoyed being successful more than those with low motivation (in Kendler, 1974) and so learned a need for achievement. The environment, an American midwestern town, may also have influenced the boys' behaviour. However, other studies (in Weiner, 1980) have concluded that training to do something well, rather than independence training (doing something on one's own) is the important antecedent of achievement need development.

McClelland (1961) also proposed an 'optimal level' theory suggesting that independence training started from too early an age could have an
inhibitory effect, but later research has not supported this position (Weiner, 1980). Maimon (1972) however, has indicated the age of eight years as the latest point before which the development and strength of achievement motive is most influenced by parental expectations for independence and mastery behaviour.

McClelland and his associates also noted that parents who in their own lives are more oriented toward achievement are typically more inclined to reward their children for achieving. These parents also serve as models for their children. McClelland deduced that achievement need is reflected in the economic climate of the country, with a cultural lag of approximately one generation. He has since developed and applied at least three successful training programmes intended to increase need for achievement to change the behaviour of businessmen toward greater initiative and accomplishment (in Krech et al, 1974). Programmes to increase work motivation have today become commonplace (Steers and Porter, 1983).

Several writers have pointed out that there is a shortage of achievers in South Africa, and Matulovich (1982) contends that one of the stumbling blocks to black advancement in this country is the lack of achievement orientation which is typical of third world cultures: 1% of blacks have a dominant need for achievement in Africa. Nel (1985) indicates this figure at 3%, but both writers maintain that when training programmes are well structured, achievement motivation can be enhanced.
It is suggested that career transition is an achievement motivator (Bakeeman et al., 1983), and that having goals appears to heighten achievement motivation. Locke and his associates (1981) concluded that, in general, goals improved task performance, but they also mobilised effort, increased persistence and motivated strategy development. However, Locke et al. (1981) did not specifically investigate in this study whether individuals rated as high achievers chose to apply themselves to moderate goals, which is the typical behaviour exhibited by high achievers according to McClelland and Winter (1961).

Steers (1975) found that among the female supervisors, in his study investigating task goal attributes, need for achievement and supervisory performance, there was a difference between the high and low need achievers. Only the high need achievers performed best when assigned specific goals rather than general ones, and when they received feedback regarding their progress. Low need achievers in Steer's study appeared to perform best when allowed to participate in the setting of their goals, while in a study involving typists (Yukl and Latham, 1978) high need achievers who were allowed to participate in the goal-setting process tended to set more difficult goals than the low need achievement contingent; however, they did not necessarily perform better.

Feedback is of concern to persons high in need achievement according to McClelland and Winter (1971), while Matsui et al. (1982) concluded that only those individuals who were higher in achievement need performed better after than before feedback. However, in all
research involved with causal attributions for performance, spurious or apparently contradictory findings may arise through the various interrelationships between variables, and dependent upon the variables selected for consideration. It is also difficult to ascribe findings to specific main effects of, or interactions between variables.

Both goal setting and participative goal setting (Dossett et al, 1979) are interesting examples because they involve the element of control over the task, which was not mentioned in the goal setting study by Matsui et al (1982). Weiner (1971, 1980) maintains that high need achievement individuals tend to attribute success to their internal locus of control, and hence their willingness to take on a task, but low need achievers may well prefer the participative method of task setting for the very reason that it offers them greater control in whether or not they will succeed.

In research relating to theoretical aspects of achievement motivation, as with that involving belief in self-efficacy, incentives, personal motives and abilities should all be considered. In the light of achievement motive theory as outlined in this section (Atkinson, 1964; Weiner, 1971), the common pretext applies: it is the specific expectation of personal mastery that influences behaviour (Bandura, 1977, 1978), and individuals with high achievement motivation and high self-efficacy belief would tend not to perform tasks if there was little value or potential in their doing so (Bandura, 1978; Teasdale, 1978). More research is required to investigate the stability of achievement motivation and its generalisability to the various activities of any particular person.
As yet no study encountered has considered achievement motivation as a factor moderating the burnout process. However, high achievement requires handling problems and perverse or stress-producing events successfully, and it is feasible that where motivation to achieve is high there is a greater chance that transformational coping will occur. Where achievement motive is low, less effective approaches to problem solving could be expected, such as avoidance tendency and other intrapsychic defense methods (Lazarus and Launier, 1978), and they may be conceptualised as the regressive or defensive coping shown to constitute burnout (Cherniss, 1980).
5. **INTRODUCTION TO THE PRESENT STUDY**

The primary purpose of the study is to investigate the validity of three specific personality variables as moderators of the relationship between work-related stress and burnout. Because prolonged stress can lead to the strain of burnout, it is necessary to measure these variables over a period of time during which the individuals are already involved in a stress-filled occupation, and during which stressful events could be expected to accumulate further. The variable of age, known as an important variable in the relationship (Maslach, 1982a), can be controlled for by data analysis.

The reasoning behind the choice of hardiness, self-efficacy belief and achievement motivation as potential moderators of the stress-burnout relationship is largely contained in the content of the section entitled 'Personality variables in the stress-burnout relationship'. Furthermore, control has emerged as a key element common to the three variables under investigation. It was Bandura’s contention that:

"Any factor that helps to determine choice behavior can have profound effects on the course of personal development." (Bandura, 1978: 237).

One of these factors is control, because a sense of control implies the ability to choose. The person who is free to choose can fulfil the need to be independent and self-determining, which is in turn
indicative of that person's personal growth and maturity (Bandura, 1978; Maslach, 1982a).

Maslach (1982a) has identified the individual more likely to burn out as one who lacks maturity, who cannot exercise autonomy and control, and who feels helpless, powerless, and trapped by the demands of other people or by the restrictions of the job. Though burnout may be linked to the personality factor of an excessive need for control, it is also linked to the situational experience of lack of control (Maslach, 1982a). A balanced sense of control is therefore a fundamental requisite for protection against burnout.

Since the element of control is common to each of the personality variables being investigated in the present study, it follows that the presence of a relatively high, balanced degree of hardiness, self-efficacy belief and achievement motive could be expected to mitigate the experience of burnout. If, theoretically, these variables could be deliberately 'developed' to enhance the person's protection from burnout, it is worth investigating their natural potential in this regard.

The present study is therefore a pilot study aimed at researching a new type of cognitive coping strategy: it investigates whether the variables in question represent intra-personal support variables by acting as moderators of the stress-burnout relationship. No published study has yet considered this concept, although hardiness has been found to be an important moderator in many situations where stress is an issue. This leads to the proposal of the following hypotheses: