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CONCEPT OF SELF AND PERCEIVED STRESS:
A STUDY OF CORRECTIONAL OFFICERS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

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CHAPTER 1

INTRODUCTION

The manifestations and etiology of occupational stress are now fashionable topics for research in the behavioral sciences and related disciplines. But while investigators have looked into the causes and signs of job-related burnout among health workers, mental health staff, teachers, police officers, physicians, and even lawyers, there has been remarkably little work done towards understanding the effects of occupational stress among correctional officers, or prison guards, a position which is both highly stressful and socially necessary.

Stress as a general syndrome of wear and tear on the body was first recognized by Hans Selye as early as 1936 (Selye, 1936) but did not become a popularly accepted entity until the nineteen-fifties (Selye, 1956). Selye was the first to recognize in particular that identifiable clinical syndromes of both physiological and psychological signs and symptoms could develop as the body's response to the nonspecific effects of external stressors. The most common of the syndromes is the aching, feverish, sore
throat syndrome which accompanies many illnesses and which Selye terms "the syndrome of just being sick" (Selye, 1956, p. 9).

Occupational stress is simply any stress which results from the course of the work setting. It can be environmental, arising from toxic substances; psychological, resulting from a variety of job pressures; physiological, stemming from the disruption of sleeping-waking patterns by shift changes, physical fatigue from the work pace, or other factors; or it can be interpersonal in origin, resulting from the strain of excessive direct contact with and responsibility for the recipients of services. Emotional exhaustion originating in this last factor has been popularized in the literature as "burnout."

Burnout was first recognized as a syndrome and given its graphic cognomen by workers in the usually poorly funded and understaffed alternative social service programs which sprang up in most major urban areas of the United States during the late nineteen-sixties (Freudenberg, 1974). Quickly, however, researchers began to note that the same set of emotional difficulties were regularly found in other occupational settings where direct contact with clients was continuous and intense (Maslach, 1976). As the review of the literature will reveal, burnout has been studied among health and mental health staff,
teachers, police officers, intensive care nurses, and even lawyers. The symptomatology of this exhaustion syndrome is by now well agreed upon, and includes a negative attitude and loss of respect for clients, an inability to care about the client's plight, absenteeism, sometimes headaches and other physiological stress-induced ailments. Alcoholism and suicide are elevated in high burnout professions (Maslach, 1976).

Correctional officers--the staff personnel in jails, prisons, and other detention facilities--are in a position which seems a likely candidate for a high rate of stress-related ailments. A number of occupational stressors in the major categories of work-related stress sources act upon these men and women. In particular, role conflicts, direct client contact, and shiftwork schedules are all aspects of the position, and are all well-known as principle sources of occupational stress. Yet the literature shows a remarkable paucity of careful studies of the effects of work-related stress on the persons filling these positions. This study is a contribution to filling that gap in our understanding of the reasons the men and women staffing our prisons respond the way they do.

Statement of the Problem.

The behavior of correctional officers as characterized in the popular culture--radio, television, movies
and novels--is brutal, sadistic, and uncaring. Writes G. L. Webb (Webb, 1973):

Almost without exception, prison guards are depicted as villainous. Movies, televisions, and literature have consistently depicted the guard disparingly . . . Guards are generally ignored by politically appointed administrators . . . But when things go wrong, guards and inmates get hurt, while prison administrators busy themselves inventing explanatory fictions after the disaster.

It is not uncommon for workers in highly stressful human service occupations to respond to the interpersonal, role conflict, and organizational stresses of their work by developing adaptive coping patterns which are not conducive to the delivery of high-quality care. This can lead to public criticism of the persons in these positions, where in actuality it is the stress which has been structured into the job which makes it extremely difficult for the practitioner to function in any other manner.

Because of this lack of preparation for coping with the chronic emotional stress of their work, many staff people in human service institutions are unable to maintain the caring and commitment that they initially brought to the job, and then the process of burnout begins (Maslach, 1978b).

It is known that certain persons develop patterns for adapting to occupational stresses which permit continued high level functioning, while others reach the exhaustion stage much more quickly. Some studies involving
self-concept have suggested that persons with a high self-concept are significantly less likely to burnout under stress than those with a low self-concept as measured by a standard self-concept instrument. It would appear from some reports that the social perception of the role of the prison officer contributes to a low self-esteem. Correctional officers, reports Maslach (1976) often refuse to state their occupation when asked. The present study is an attempt to investigate the extent to which correctional officers experience burnout as it relates to the self-esteem of these officers.

Definitions

**Burnout:**

Burnout here is defined as the syndrome observable in client-contact social service jobs characterized by a lack of caring about clients, low morale, and certain physiological and psychological correlates of stress. Burnout for the purpose of this study shall be operationalized as the score on the Maslach Burnout Inventory (MBI).

**Correctional Officer:**

This term is now the accepted term for the ancient profession of prison guards. Correctional officers for this study include any person employed under the job title *correctional officer* and assigned to work in a
detention facility. In the course of the study, we will have occasion to define several subgroups of officers:

   **New officers** have been employed as correctional officers for three years or less.

   **Experienced officers** have been employed in this capacity for more than three years.

   **Burnt-out officers** scored in the upper 33% of the study sample of the MBI instrument.

**Occupational Stress:**

This term will refer to any aspect of the work situation of the subjects which produces, in Selye's terms, "wear and tear on the body."

**Questionnaires:**

A battery of three questionnaires was administered to each subject in this study. These instruments will often be referred to collectively as the questionnaires and include the Tennessee Self-Concept Scale, the MBI, and a special form requesting certain demographic and job-related data.

**Self-concept:**

An index representing the degree to which the person has a positive or negative assessment of his own being. This concept can be made specific to a number of areas, such as Identity, Self-satisfaction, Behavior, Physical Self, Moral-Ethical Self, Personal Self, Family Self, Social Self and the overall level of self-esteem. For the
purposes of this study, self-concept will be taken as the nine subscores of the Tennessee Self-Concept Scale (TSCS).

Staff-inmate ratio:
The staff-inmate ratio for a given correctional officer is the ratio of the number of staff to the number of inmates on the unit, cell-block, wing, or whatever portion of the prison the officers responsibilities cover.

Research Questions
So much remains to be learned about the responses to stress of prison personnel that it was difficult to select a feasible set of questions which realistically could be approached in a single comparative study. The current research attempts to contribute information to the following three questions:
I. Is there any correlation between the self-concept of correctional officers and their burning-out? Do burnt-out officers tend to differ from other officers significantly in terms of their self-concept?
II. Is there a significant difference between the self-concept of new and experienced officers? This question should be of some help in assessing whether a correlation between self-concept and burnout involves a cause-effect relationship and in which direction that relationship runs.
III. To what extent does the staff-inmate ratio play a role in the relation between self-concept and burnout?

Hypotheses of the Study.

Experimental Hypotheses. While the selection of appropriate statistical methods requires the formulation of the hypotheses in terms of null expectations, it is often more lucid to begin with a statement of the hypotheses in terms of the expected outcomes--that is, the experimental hypotheses.

1. There will be a negative correlation between TSCS and MBI scores.
2. Burnt-out officers will have significantly lower TSCS scores than other officers.
3. There will not be a significant difference between the self-concept scores of new and experienced officers.
4. There will be a significant interaction of staff-inmate ratio with the self-concept in predicting burnout levels.

Null hypotheses: These hypotheses when phrased as formal null hypotheses will become:

1. TSCS and MBI scores are independent variables.
2. There will be no significant difference in the mean TSCS scores of burnt-out and other officers.
3. There will be no significant difference in the mean TSCS scores on new and experienced officers.
4. There will be no significant difference in the mean TSCS and MBI scores of officers on high staff to inmate units and on low staff inmate units.

Limitations of the Study.

1. Cause-effect relationships are extremely difficult to establish in a comparative study of this type. The study cannot really determine, if a correlation between self-concept and burnout is found, whether burnout lowers self-concept of officers, or whether low self-concept leads to a higher rate of burnout.

2. It is impossible to control for all of the many variables which effect the stress level of different assignments of different correctional officers. The staff-inmate ratio is the only measure of stress, rather than adaptation to stress, used in the study.

3. The limitations of this work include the restrictions on the population from which this sample is drawn. Correctional officers are all employed by the Department of Corrections of the State of Ohio. It is not at all impossible that certain regional considerations will affect the outcome of the present study.

Significance of the Research.

Since the previous research on stress and burnout among populations of correctional officers has been so
woefully inadequate, the collection of any data relating to this area is of importance in developing an understanding of the factors which contribute to stress-related dysfunction among this population. Such an understanding is vital if prison administrators are going to move beyond the popular conception of the uncaring, brutal prison guard to a more justified conception of the correctional officer as an employee like any other, working at a difficult and dangerous job and in the process experiencing the same sorts of stress which drive other human service professionals as well into a stance of seeming unconcern for the welfare of their clients.

In addition, this study is a contribution to the understanding of occupational stress in general. It is known that diseases of adaptation and burnout relate to a failure of the resistance stage of the general adaptation syndrome to cope adequately with the stress. How various personality factors relate to the ability to provide for oneself effective coping strategies has significance in training human service workers to deal effectively with stress.

Finally, the MBI is a relatively new instrument, and this work contributes another estimate of its value as a research tool.
Summary.

While studies of burnout in human service professions are currently in vogue, work relating this growing concern with occupational stress to the work of correctional officers is scant. Nonetheless, research into the major stressors involved in occupational stress indicate that one should expect correctional work to be stressful in the extreme. In popular culture, prison guards are depicted as mean and thoughtless persons, but there is reason to believe that to a large measure this behavior consists of a response to the intense stress of the correctional officer's working environment. The current study is intended as a contribution to an understanding of the nature of occupational stress as it leads to the burnout of prison personnel.

Since the work of the correctional officer is held in such low regard socially, it seemed likely that these workers suffer from low self-concept. There is evidence in the occupational literature that self-concept is related to the ability to protect oneself from the ill effects of stress. The relationship between self-concept and burnout was thus selected as the area of focus for this study of stress in correctional officers.
CHAPTER 2

REVIEW OF THE LITERATURE

In this chapter we will review the literature relevant to the present study. In particular, we shall examine the literature in three different areas. First, we will examine the field of occupational stress, with special emphasis on that small body of research dealing with stress and the phenomenon of burnout among correctional officers. Second, we will review the Tennessee Self-Concept Inventory, and discuss its validity and relevance to the current research. Finally, we will review the literature on the other instrument employed in this work, the Maslach Burnout Inventory (MBI).

Occupational Stress

In the last fifteen years, the concept of stress, first brought to the attention of the scholarly community by Hans Selye in his 1936 article on the nonspecific effects of various toxic substances (Selye, 1936), has become increasingly popular as a mechanism to explain, in a holistic fashion, the common features, both behavioral
and physiological, which are manifested by the human organism when it experiences a systemic insult. Selye points out in his exhaustive bibliography of studies on stress (Selye, 1976) the astounding rise in the number of studies dealing with stress each year over the last several decades. The first section in our discussion of stress will consist of a review of the definitions of this concept and its evolution as an explanatory tool. The stress concept has proven particularly useful in analyzing the job-related behavioral and affective problems of certain types of professionals in the so-called helping professions. Medical and mental health personnel, teachers, police officers, and prison guards all experience this specific brand of occupational stress which has become known as burnout. The second section of our discussion of stress will deal specifically with occupational stress.

There is all too little work in the literature on the psychology and sociology of the correctional officer. Jessica Mitford, in her critique of the nation's penal system, (Mitford, 1973, p. 9) wrote:

The character and mentality of the keepers may be of more importance in understanding prisons than the character and mentality of the kept.

There is much truth to this, and it is critical that the behavioral consequences of the stressors of prison work be
more fully understood if the shortcomings of our penal system are to be corrected. Unfortunately, this is not what Ms. Mitford meant when she penned the passage above. Rather, the author was falling prey to the stereotype of the prison guard as a brutal sadist whose relations to the inmates is predicted on sheer meanness and the desire to dominate. This social image itself is a source of job-related stress for the correctional officer. The third section of our discussion on occupational stress will deal directly with literature relating to the effects of stress on the prison staff member.

**Stress**

Selye (1956) has come to adopt a remarkably non-specific definition of stress. "Stress is essentially the rate of wear and tear on the body." The nonspecificity of the concept is essential to its value. Selye recounts (1956) the process which led to his recognition of stress as an entity. As a student, he had remarked on the great many similar symptoms which accompanied illness of all sorts--symptoms such as tiredness, headache, fever, aching muscles, sore throat. Selye referred to this non-specific ailment as "the syndrome of just being sick." Later, as a researcher, Selye discovered, looking for something quite different, that a wide array of substances, when injected into the body of a rat, produced a syndrome
of three easily-recognizable signs. Selye became intrigued with the question of how the organism responds in general to insult, and the study of stress became his life's work.

In his first paper on stress (although for this particular paper, bowing to critics, he dropped the use of the term "stress" temporarily), Selye described an outline of the organism's response to a stressor which he called the General Adaptation Syndrome (Selye, 1936). The General Adaptation Syndrome (G.A.S.) has three stages: the alarm response, the stage of resistance, and exhaustion (Selye, 1976, p. 6). The stage of alarm is marked by a general activation of the system. The stage of resistance is characterized by a variety of distinct adaptive responses which comprise the signs and symptoms of the psychophysiological ailments which Selye terms diseases of adaptation--ulcer, hypertension, cardiac disease, as well as behavioral ailments, such as depression and withdrawal. It is important to bear in mind that these adaptations are correlated with specific physical alterations of the organism.

Since 1936, numerous biochemical and structural changes of previously unknown origin have been traced to nonspecific stress. (Selye, 1976, p. 6)

For example, Cobb (1974) finds that there are meaningful changes in norepinephrine excretion and in serum
creatinine, serum uric acid, and serum cholesterol associated with the stress of job termination in men. Sklar and Anixman (1979) similarly find that stress and coping factors influence the rate of growth of tumors.

Stress, however, is not in its current technical usage to be considered at all times a force unfavorable to the organism. Since a stressor is anything which causes any wear and tear on the organism, even life-sustaining activities must be considered as stressful. Selye, therefore, has coined the term "eustress" as the opposite of "distress" to refer to a stress associated with gratifying or health promoting demands on the organism (Selye, 1976, p. 244).

**Occupational Stress.**

Among the many stressors encountered in contemporary society, those associated with the individual's occupation may be the single most important source of strain on the mind and body of the employed person. Kearns (1973) lists a number of distinct forms of stress which employment in modern society exerts upon the employee. These include **individual** stressors based on the actual workload of the person, organizational stressors caused by the tensions of functioning within the role structure of the corporation, management stressors which plague those responsible for work done by others, identity and status stressors relating
to the position in society associated with certain income levels and job descriptions, and sex role stressors caused by both discrimination and changes in the concept of the types of work appropriate for men and women.

As we saw in the previous section, Selye identified three stages in the adaptation to stress, the last of which was exhaustion. Currently, the study of this stage as it relates to occupational stress is enjoying a vogue, under the graphic label "job burnout." This concept, popularized by the work in particular of Christina Maslach of the University of California at Berkeley, has been of great value in discussions of the experience, particularly of those who work in a helping fashion in direct contact with a patient or client population. Such workers as mental health staff, teachers, and police have high rates of job burnout. In this review section we will consider a number of factors relating to stress and burnout in the occupational arena, as they affect working populations in general. In the final section, we will study correctional officers in particular.

Sources of occupational stress.

There is no doubt that modern employment is a stressful social context. This stress is not entirely an accidental artifact of the corporate form. Rather, there is evidence that high levels of stress are often
purposefully maintained under the misconception that tension keeps the employees in line. Management consultant Joseph Mason wrote: "... a reasonable number of anxieties and personal conflicts are often good for employees." He went on to suggest threats of dismissal, the use of shame, tightened schedules and increasing standards of performance as ways to keep employees suitably anxious (Mason, 1964). But industrial and management psychologists have been warning against the overstressing of an organization, reporting that such stress can damage the corporate function. The same year that Mason was writing his homespun wisdom on needling workers, Kahn and his associates wrote: "Of more far-reaching importance ... is the fact that common reactions to conflict and its associated tensions are often dysfunctional to the organization" (Kahn et al., 1964, p. 65).

Among the many unintentional sources of job stress, several have been identified in studies as being of particular significance. These include direct client contact, role conflict, and shift work. All three of these factors, as we shall see, are components of the correctional officer's environment.

Role Conflict. Role conflict is a major factor in occupational stress. Kahn (1978) reported that incompatible job demands was a major component of job-related stress, especially in positions where people had to relate.
both with persons inside and outside the organization. Kahn identified work overload as a form of role conflict. Overload, when the employee is asked to do more than he or she can possibly perform, is not so much fatigue-inducing as a source of conflict—it is impossible for the worker to carry out the assigned task.

Several studies on a population of police officers have revealed the role of organizational conflict in burn-out in this profession. Drabek and Haas (1969) performed observations on police teams during simulated disaster situations. The stress which was observed among the police officers was attributed to strains in the organization which existed prior to the simulation and which created incompatibilities between system structure and emergent demands on the system in the disaster context.

Kroes, Margolis, and Hurrel (1974) as well studied stress in policemen, in this case among 100 Cincinnati police officers. They concluded that the most significant stressors acting on this population were not related but rather to those aspects of police work which threatened their sense of professionalism. Similar findings of the role of organizational and identity stressors in police work are discussed by Symonds (1970) and Margolis (1973).

Shift work, and the ensuing disruption of the sleeping-waking cycle, has been listed among the most stressful of the job-related stressors. Selye (1976)
reports that the disruption of the circadian cycle in man produces a number of biochemical alterations, including abnormal plasma levels of corticoids and their metabolites, catecholamines, and insulin (p. 285-288). It is generally agreed that it is the change of the sleep schedule which produces the most important component of the stress associated with shift work.

There are a great many studies documenting the very serious stress-related symptoms reported by workers on rotating shifts. Akerstadt (1977) found that when 36 habitually-dayworking railway repairmen were exposed to a three-week period of night work, there were significant alterations in catecholamine excretion, body temperature, and subjective alertness and mood. Nightwork definitely appeared to be a stressor. But other research seems to indicate that it is not the nightwork but the change in schedule which serves as the stressor. In one study, (Hale, Williams, Smith, and Melton, 1973) six men who were studied nightly during cycles of uncustomary alternating shift work showed distinct biochemical evidence of stress. High levels of urinary epinephrine were found during morning periods in the weeks when there was no morning work, indicating that it was the rotating schedule and not the night work which acted as the stressor. With each return to morning work the biochemical irregularities were less significant, indicating an adaptive response to the
rotating schedule.

There have been studies linking shift work directly to physiological ailments. In a Polish study (Lsnick, Bajdur, and Sosnirez, 1970) night shift work was found to lead to an increase in peptic ulcers in miners. In a study on social isolation, Rockwell and his associates (1976) found that disruptions in the circadian rhythm led immediately to the reporting of a variety of physical symptoms.

Ostenberg (1973) has found evidence that there is truth to the old notion that some people are "morning" people while others are "evening" people. He found that there was a significant interaction between a worker's stated shift preference and his or her adaptation to different schedules. Morning workers are the least adaptable to shift changes, he discovered.

Direct responsibility for clients or subordinates is another major occupational stressor which receives much attention in the current literature. The experiments showing that monkeys given responsibility for making decisions which affect the shocking of other monkeys acquire serious gastrointestinal ailments are now classic (Brady, 1958). These studies, termed "executive monkey" studies, led for a while to the popularization that it is the high-level decision-maker who experiences the most job-related stress. But in fact, the lower the worker's
socioeconomic level, the more job stress is reported (Kahn, 1978). The human occupational correlate of the executive monkey study is more accurately the direct responsibility for clients or patients. High rates of burnout are reported in medical and mental health staffs, in teachers, in social service programs, and in police and prison work.

Calligan, Smith, and Hurrell (1977) surveyed the major occupational groupings in Tennessee to determine which categories displayed the most clinically significant psychiatric complaints. They concluded that there was an unexpectedly large number of health care and hospital workers admitted to mental health centers in the state. Shircore (1976) found that among nurses, the intensive care nurse, who deals with the sickest patients, experiences the worst stress among the nursing staff. Pines and Maslach (1978) report that personnel who can withdraw to administrative or other work experience less burnout than those whose worktime requires them to remain in contact with the clients or patients constantly. Other studies on burnout (Maslach 1978a, Maslach 1978b, Freudenberger 1974) agree that increased work hours produce a higher incidence of burnout only as these increased hours include additional client contact. Kahn (1978) reported that among physicians burnout is highest among those who are directly responsible for individual patients.
Symptoms of Burnout. So far we have discussed the sources of occupational stress which can lead to so-called burnout in human service settings. While the particular stressors in these occupational contexts are many and diverse, there is a common symptomatology which identifies the burnout syndrome as a unique entity. Maslach (1978a) describes the syndrome succinctly:

Burnout is characterized by an emotional exhaustion in which the staff person no longer has any positive feelings, sympathy, or respect for clients . . . . The staff person who burns out is unable to deal successfully with the chronic emotional stress of the job and this failure to cope can be manifested in a number of ways, including low morale, impaired performance, absenteeism, and high turnover. . .

Furthermore, burnout is correlated with various indices of personal stress. The emotional exhaustion is often accompanied by physical exhaustion, illness, and psychosomatic symptoms. People who experience burnout sometimes increase their use and abuse of alcohol and drugs as a way of reducing tension and blotting out strong emotional feelings. They report more mental illness . . . increased marital and family conflict.

Some of the statistical correlations between occupational stress and signs of illness are truly striking. Maslach (1976) reports that police officers have a suicide rate nearly 6½ times that of the population in general.

Hageman (1973) studied the effect of occupational stress among police officers on their home and marital relationships. She observed the typical pattern of burnout. The law officer, she found, learns to deal with the
stressfulness of the occupational situation through emotional detachment, which affects home as well as working relationships. According to the reports of the officer's spouses, as the length of service increases, so does the officer's degree of emotional detachment, social withdrawal, and repression. When rookie police officers were compared with veterans, it was seen that there was a statistically significant higher rate of marital problems among the older policemen. Of course, this could be caused by other factors involving average length of time married or age of the officer.

Maslach (1978b) restricts her use of the term burnout to "emotional exhaustion resulting from the stress of interpersonal contact." She indicates that she objects to burnout being used in general to mean exhaustion or fatigue which stems from occupational stress in general. Thus, she does not use the term to refer to the stress of boredom or monotony, such as is experienced on the assembly line, nor does it refer to intellectual exhaustion, loss of creativity, and so on. While studies certainly indicate that interpersonal stress is the critical stressor in these employment contexts, the accepted understanding of stress as developed by Selye is to view the effects of stress as being the nonspecific component of the resultant syndrome. Thus, in this study Maslach's differentiation of burnout from the general exhaustion phase of the
adaptation response to occupational stress will not be observed. Rather, since many of the major stress-producing aspects of occupational settings apply to the workstyle of the correctional officer, this stress shall be considered without regard to its specific origin.

**Stress and the Correctional Officer**

As we mentioned earlier, there is a paucity of research on the efforts of job-related stress on the correctional officer. Yet there is certainly reason to suspect this occupation as being highly stressful. As Webb (1973) points out, the prison guard works a demanding shift-work schedule, remains in constant contact with the client population, experiences stress due to the low esteem in which the public holds this occupation, and experiences role conflicts within the job setting. Thus, a great many stress-producing aspects of other work are found in conjunction acting on the prison guard. Maslach (1976) reports that prison guards experience such high levels of conflict and stress that they will often refuse to state their occupation in an interview, preferring rather to state that they work for the government.

Webb (1973) emphasizes the public contempt for the correctional officer as a major factor acting as a stressor on this population. In his little book *Prison Guards* he writes of the portrayal of correctional officers in the
popular culture as brutes and sadists who would not have taken that sort of work if they were not psychologically unbalanced to begin with. Maslach (1978a) reports that this phenomenon of blaming the staff for their response to the stressfulness of human service institutions is common in all settings where client-contact burnout takes place. She writes:

There is no question that clients have many legitimate reasons to protest the quality of the treatment they receive. However, to approach the problem by pointing a demning finger at the character defects of staff personnel fails to take into account the severe emotional stresses that are inherent in the work.

The behavior of prison guards who have worked in the prison for some time can be understood as an adaptation to protect the individual correctional officer from the stressors of the work which can lead to emotional exhaustion. This process is not altogether individual, but as Webb (1973) documents, is a socialization process, in which peer pressure demands that new officers appear sympathetic to inmates while more experienced C.O.'s, who have been burned; that is, manipulated, by inmates, are expected to appear "con-wise" and avoid the appearance of being overly "pro-inmate."

Moynihan (1976) also discusses the development of behavior among correctional officers as a process of
socialization. Moynihan sees the process of getting burned as the key construct in this socialization, but he understands this process as one involving role conflict as well as client and peer contacts. In particular, he discusses the stress which results from the contradiction between the prison's stated purpose and the actuality of the prisons functioning. The stated purpose of the institution of prison is twofold in our society. Primary is the protection of the public from persons violating the standards of social behavior. Second is the rehabilitation of offenders. In actuality, finds Moynihan, the principle motive force in the prison establishment is organizational self-maintenance, as in any bureaucratic structure. This realization becomes the force behind the socialization of the prison guard in a four-step process.

1. The new correctional officer begins to recognize that the prison cannot fulfill its mission.
2. In conversation with more experienced correctional officers, the new staff member discovers that people are unwilling to admit this structural failure of the prison system.
3. The new officer learns that to reveal perceptions of the contradictions in the prison system would lead to unacceptable embarrassment of the system.
4. To alleviate this conflict, the new correctional officer becomes complicit in the conspiracy to conceal the absurdity of the system in which he works.

Simbi (1979) also identifies role conflict as a principle stressor in the prison context. He focuses on the conflict between the two stated goals of the prison, rather than on the contradiction between stated and actual purposes. Simbi, in a fashion similar to Moynihan, identifies the two formal goals of the prison as custodial-incarceration, and treatment-rehabilitation. These two tasks often place conflicting demands on the correctional counselor, who in attempting to rehabilitate the inmate to the best of his ability must constantly avoid getting burned in terms of permitting the inmate to violate the norms of incarceration. The stress which stems from this role conflict leads directly to reports of job dissatisfaction. The effect of this role conflict on the attitude and reported job satisfaction of the correctional officer is dependent on the rank of the officer in the correctional hierarchy. The higher the rank of the officer, the less significance was found attached to role conflict stressors. This observation is in line with the view that adaptive behavior in the socialization of correctional officers tends to minimize stress as exposure to the stresses of the work continue. It is also consonant with the general
observation that social status is negatively correlated with stress in the occupational setting.

Another recent study (Karlinsky, 1979) examined job satisfaction among the correctional personnel at a Canadian Penitentiary. Karlinsky examined not the nature and origin of the stress, but rather collected self-report information which enabled him to measure the role of stress as compared to other employment related variables on the reported levels of job satisfaction. Not surprisingly, he found that job-related stress was the most commonly reported job dislike and the largest source of dissatisfaction with employment as a correctional officer.

Summary.

A survey of the literature of occupational stress in general and among correction personnel in particular verifies the need for the type of research proposed in the current study. While general research on the source and effect of occupational stress implies that stress within the prison context can well be expected to lead to occupationally and socially significant forms of adaptive behavior and to burnout, there is scant literature available on the actual effects of stress among correctional officers.

Stress is defined by Selye as any source of wear and tear on the body. Stress is a nonspecific response to
insult to the organism from external stressors, and is distinct from the specific components of given illnesses, traumas, and other disruptions; in fact, the motivation for Selye's discovery of the stress concept was the idea of "the syndrome of just being sick." Stress can give rise to a multiplicity of physiological and psychological diseases of adaptation, such as depression, withdrawal, ulcer, and high blood pressure.

Occupational stress is an important source of wear and tear in contemporary society. The literature identifies three sources of stress in the occupational setting which numbers of studies have identified as being of particular importance. These are role conflict, shift work, and constant direct interpersonal contact. The burnout syndrome which is currently very popular in discussions of human service work refers to the emotional exhaustion which can result in the job situation as a result of the failure to adapt successfully to the stress of the work. In general it has been used in situations with a great deal of client contact, and research has shown that in many client-contact jobs it is this interpersonal stress which becomes the greatest single contribution to stress. Maslach prefers to use the term burnout to refer only to exhaustion stemming from this interpersonal stress, but in the present study we will concern ourselves with stress from any of the multiple stressors in the correctional environment;
our use of the term burnout will refer to the exhaustion phase of the General Adaptation Syndrome as characterized by a loss of caring about clients and certain emotional and physiological correlates, with no assumptions as to its specific etiology.

The prison environment contains elements of all three principle sources of occupational stress, and those studies which have been carried out on samples of correctional officers indicate that this position is indeed highly stressful. In particular, correctional officers experience role conflict in several ways, they must work a shift-work schedule as do police, and they are in a situation of constant and stressful client contact. The lack of research on the role of stress on the worklife of these personnel indicates the need for much more research like the present study.

The Tennessee Self Concept Scale

The Tennessee Self Concept Scale, (TSCS) was developed to meet the perceived need among both counseling and research psychologists for a standardized multidimensional measure of the self-concept. Based on questions derived from earlier work on self-concept measurements by a number of researchers (Balester, 1956; Engle, 1956; and Taylor, 1953) and from written self-descriptions of patients and nonpatients, the scale has
become a basic element in the psychometric instrumentation of modern experimental and clinical psychology (Fitts, 1965).

The scale measures a multiplicity of components of the self-concept. The breakdown of the self-concept into factors is a two-dimensional one, in which a three-by-five array yields 15 partial scores. This three-by-five array is defined as a dimension of different aspects of the self: physical self, moral-ethical self, personal self, family self, and social self. Each of these five aspects of the self-concept is evaluated by the subject in three ways: in terms of identity (what he is), self-satisfaction (how he accepts himself), and behavior (how he acts). Each of these fifteen components if represented on the test by six questions; this accounts for ninety test questions in all. The remaining ten items on the scale constitute the self-criticism scale.

These are all mildly derogatory statements that most people admit as being true for them. Individuals who deny most of these statements are most often being defensive and making a deliberate effort to present a favorable picture of themselves. High scores indicate a normal healthy openness and a capacity for self-criticism (Fitts, 1965).

The scores used principally in the interpretation of the scale are the total score, representing an overall measure of self-concept, and the eight partial scores found by
totalling any one of the three rows and five columns in the two-dimensional structure just described.

The scale is self-administering and requires no instructions beyond those on the inside cover of the test booklet.

The TSCS has been used extensively in the last two decades as a tool in psychological and sociological research, as well as a tool for clinical assessment in counseling contexts. For research purposes, the Clinical and Research Form, which is based on the same 100 items, is recommended. While this form utilizes the same questionnaire, it provides a number of additional scales used to assess the validity and interpretation of the results, including a true/false ratio, which measures response style, a Net Conflict Score, which assesses differences in the response to positive and negative questions, and a number of empirical scores permitting various group discriminations.

Test-retest reliability varies from scale to scale and from score to score, but in general is found in the upper 80's. In addition, correlations between the TSCS and a number of other instruments is quite high. The scale correlates very well (.70) with the Taylor Anxiety Scale and has correlations between .50 and .70 with several MMPI scales (Bentler, 1972).
Bentler finds, however, that there are two serious shortcomings in the scale. First, Bentler criticizes the test for a lack of any material on the internal consistency of the scale. Some of the scales might be two-dimensional. Bentler writes that "there is no reason for the psychological or educational profession to accept a manual or trait measure in the 1970's without this elementary information being available."

Bentler also criticizes the scale for its overinterpretation of the 100 item data base it provides. The Clinical and Research form derives twenty-nine supposedly independent scores supposedly representing different personality traits. This is an extraordinary amount of information to squeeze out of 100 items. Bentler states: "While some old-style clinicians may appreciate the depth and care with which the author of the scale formulates hypotheses and proceeds to test them using the data of the scale, this reviewer finds such a practice misleading and quite over-interpretive relative to the available data base."

Suinn (1972) considers the TSCS to be among the better measures of self-concept available, and indicates his trust in the empirical scales to function as group discrimination indices. Yet this author too finds fault with the statistical reporting of the development process of the test. For example, Suinn points out that
while the author states that the norming trials showed no significant difference on the TSCS scores of white and black subjects, subsequent research has used the scale to display such results as differences in self-concept between white and black college students.

Other writers have also been dismayed with the statistical design of the TSCS. Rentz and White (1967) performed a factor analysis on the questionnaire and did not support the division of the test into the scales the author uses. Rather they found three independent dimensions. Vacciano and Strauss (1968) found twenty factors but failed to find support for the three measures of identity, self-satisfaction, and behavior.

The TSCS has been utilized in a number of contexts where the interrelationship between stressful situations and self-concept measurements was of interest. Guynes (1975) utilized the measure in studying the adaptations made by overseas personnel. Hall (1975) measured the relationship between self-concept as given by the TSCS and the marital adjustment of commuting college students. Nieberding (1975) has studied the effect of incarceration on the self-concept of the prisoners. Most of these studies found significant differences between subsamples on the various scores of the TSCS, thus giving credence to the construct validity of the measure.
The review of the literature revealed only one previous study in which the TSCS instrument was used with a population of correctional personnel. Richardson (1975) compared the self-concept of correctional staff in community and institutional settings. The hypotheses of the study did not implicitly or explicitly attempt to measure effects of occupational stress, nor was a significant difference observed between the two groups. However, there was found a significant difference in job satisfaction, with the institutional workers appearing to be significantly more satisfied with their work. The TSCS did reveal that both groups were significantly higher than the mean score, indicating that the correctional officers studies had a positive rather than negative self-image.

**Summary.**

The TSCS, which was developed by William Fitts for the Tennessee Department of Mental Health, has become a standard instrument in the psychometric armamentarium, and is well accepted in psychological and educational research. Several researchers have expressed dissatisfaction with the statistical basis for the scoring and scaling of the questionnaire, but in general the construct validity and the reliability of the overall test is well established. The test has been used in a number of successful studies which measured the relationship between certain stressful
situations, thus bolstering the construct validity of the test, especially for use in the measurement of personality traits affected by stress. There is little record of research correlating the TSCS with the occupational stresses encountered by correctional officers.

**The Maslach Burnout Inventory**

The Maslach Burnout Inventory (MBI) is a new psychometric instrument developed by Maslach and Jackson (1979) at the University of California at Berkeley. The scale is designed to assess various aspects of the burnout syndrome as it has been observed in a variety of human service professions. Although the scale has of yet been used only in a few studies, the data collected by the developers of the instrument indicate that the MBI possesses both high validity and high reliability and should serve as an effective tool in research on occupational stress in those types of work where the classic burnout syndrome is observed.

The three subscales of the MBI relate to three areas which Maslach and Jackson consider to be the three principal phases of the burnout syndrome. The first phase is generalized emotional exhaustion. Emotional exhaustion in human service positions leads after a time to an increasingly negative view towards the recipients of services (Ryan, 1971). This phase is measured on the
depersonalization scale. Continued exhaustion leads to the tendency for the employee to begin to evaluate him or herself negatively in regards to work. This tendency is measured on the personal accomplishment subscale. Factor analysis of completed MBI forms indicates the validity of these three subscales.

Development of the Inventory.

The discussion of the development of the MBI, as well as the subsequent discussion on the validity and reliability of the instrument, are adapted from the 1979 paper by Maslach and Jackson.

The MBI in its initial form was composed of items developed from statements about feelings and attitudes which related to earlier work on the symptomatology of the burnout syndrome. The term recipients was used throughout as a general term for the persons receiving service from the helping person responding to the questionnaire. Each item was scored on two dimensions—a six point scale of frequency, and a seven-point scale measuring intensity. The preliminary testing was done with a scale consisting of 47 questions of this type, and administered to a sample of 339 men and 266 women from a variety of occupations in the health and service fields—police, counselors, teachers, nurses, social workers, psychiatrists, psychologists, attorneys, physicians, and agency administrators. The
data was analyzed through a factor analysis using principle factoring with iteration and a varimax rotation; ten factors were uncovered, of which four accounted for over three-quarters of the variance.

This factor analysis was used as the basis for a refinement of the preliminary scale. Items were retained which had a factor loading of more than .40 on only one of the four major factors, which had a wide range of subject response, a low percentage of "never" responses, and high item-total correlations. The correlation between the frequency and intensity dimensions were low enough that it seemed reasonable to retain the two as distinct dimensions.

A second test of the MBI using this refined scale was run on a similar sample of 420 people. The data for these 25 retained items in the second test was similar to the results on these items for the first test and so the two samples were combined for these items for a final analysis, which revealed 4 factors accounting for 100 percent of the variance. The three subscales mentioned are identified with three of these factors. The fourth is not considered a regular subscale of the MBI, but appears to relate to the degree of personal involvement felt with the recipients.
**Reliability.**

The initial two studies combined were analyzed for reliability both by Cronbach's alpha and the calculation of split-half reliability coefficients. The first calculation gave subscale reliabilities all greater than .75, and overall internal reliability of .76 for frequency and .81 for intensity. Split-half reliability for the entire scale was .74 for frequency and .81 intensity. Thus, the internal consistency of the instrument is adequate.

Test-retest reliability was also calculated. Test and retest were separated by a period ranging from two to four weeks. All the coefficients calculated were significant at the .001 level. Thus, the reliability of the instrument at measuring some construct is not in doubt.

**Validity.**

While reliability coefficients test the instrument's success at consistently and replicably measuring some objective quantity, the tests of validity measure the degree to which we can be confident that the instrument is measuring that quantity which it claims to be assaying. Validity of the MBI was assessed through the measurement of correlations which define three types of validity: concurrent validity, construct validity, and discriminant validity.
Concurrent validity was demonstrated through correlation of the subjects MBI scores with independent ratings of the behavior of these individuals by spouses and co-workers. All the correlations found here were significant.

Discriminant validity is the degree to which the instrument measures a quantity which can be discriminated from other closely related by conceptually distinct constructs. In this case the MBI scores were compared with the results of the general job satisfaction score on the Job Diagnostic Survey shows that job dissatisfaction and MBI measured burnout are distinct entities.

Construct validity. The MBI scores were tested for correlation with a number of behaviors which they predict are aspects of burnout, including aspects of behavior on the job, behavior at home, and social behavior. The results here were all in line with expectations, validating the study yet another time.

Applicability to the Present Research.

Although it will take much use of the MBI to verify its value as a research tool, the statistical work by its developers certainly indicate that it possesses a high internal consistency, test-retest reliability, and validity, and can be used with some confidence as a psychometric tool. Is this tool applicable to the current research?
While correctional officers are indeed a client-contact human service population, our review has suggested that the stress on these workers comes from three major sources, only one of which involves the interpersonal stress resulting from the direct client contact. Role conflict has been suggested by several writers as an important stressor in this context. Maslach, as we noted in a previous chapter, restricts her definition of burnout to the effects of interpersonal stress in the service of recipients, and defines the symptomatology to conform with the burnout syndrome as observed in such work places. Thus, we are using the term burnout in a wider sense than Maslach when we discuss prison guard burnout even if we utilize the MBI symptomatology to define its manifestations.

There is a chance that the use of the MBI will, therefore, lead us to overlook certain aspects of the manifestations of occupational stress on prison guards.

In line with the Selye concept of stress, however, as the response of the organism to assault in general, it would seem to be quite valid to concern oneself with a study of this one particular expression of adaptation and exhaustion in the face of stress, without undue concern for the specific stressors which initiated the response. In this view, burnout would be defined by the classic symptoms and, thus, would be distinct from other manifestations of stress such as depression or peptic ulcer. Yet we would
not require in the definition that the burnout response was due to interpersonal rather than, for example, role conflict stressors.
CHAPTER 3

METHODOLOGY

The present study was undertaken to examine the role played by self-concept or self-esteem as a predisposing factor to the burnout reaction in the high-stress occupational environment of the correctional officer. For comparative purposes, the role of self-concept was compared to a known objective factor in the burnout syndrome among human service workers, the staff-client ratio. In addition, self-concept among newer and more experienced workers was compared to see if this factor remained a constant or varied with time, a piece of knowledge which helped in the assessment of the possibility of a cause-effect relationship existing between self-concept and burnout.

The nature of the study dictated that it was to be conducted as a comparative survey, rather than as an experimental study, where variables are set by the researcher. Rather, several psychometric instruments were used to estimate parameters for degree of self-concept and burnout on correctional officers in the workplace. This of course introduced a number of difficulties into the
In particular, there was no a priori guarantee that in the sample we would see the full range of variation in the parameters we are measuring. Thus, we may be unable to detect certain correlations which actually exist in the population of correctional officers. For example, if all the officers in the sample turned out for some reason to have low self-esteem or high staff-inmate ratios, the tests would lose a great deal of their meaning.

In addition, the literature on the Maslach Burnout Inventory gives us no reason to believe that the test has been normalized, so that the use of conventional parametric statistical methods may produce irrelevant and incorrect conclusions if applied to this data. The Tennessee Self-Concept Scale is normalized, but of course there is the possibility that correctional officers show an abnormal distribution of TSCS scores. This in itself would be a valuable finding, since little is known about the self-concept of correctional officers.

Thus, the decision to use parametric or nonparametric statistical methods will be determined through an examination of the approximate normality of the collected scores.

Sample Selection

The selection of a sample is a critical step in the carryout of a comparative study such as this one.
Ideally, of course, such a sample would include such subjects as to represent accurately the distributions of all the relevant variables in the entire population of correctional officers. Unfortunately, other factors enter into actual experiments besides the scientific value of an unbiased sample, not the least of which are concerns for financial matters. Often the experimenter must make a choice between a biased sample, making full note of the possible biases introduced, and doing no research at all. The current study presents us with such a choice.

Of all the facilities which were administratively and financially within the bounds of this study, all but one are training facilities or facilities of a special nature. The choice was made to study correctional officers at a single major correctional facility rather than add these obviously biased subsamples to our sample. The use of a single facility raises its own obvious shortcomings. However, for one, there is a fairly constant staff-inmate ratio which limits the sensitivity of the statistical methods in determining the role of this critical variable in the etiology of the burnout syndrome. The minor differences observed between different units in the facility had to suffice for measurements of this factor. In addition, there was a possibility that regional differences, either in the population at large or in the administration of the prisons and prison
labor-relations would give rise to a certain bias in the results. Actually, to determine whether there are differences in the stressors placed on the correctional officers in different states, or whether persons from different regions are better able to tolerate these stressors is a major piece of research in itself. Suffice it to say that conclusions drawn from the data collected in this study can be said with certainty to apply only to the facility where the research was carried out and care must be used in generalizing these results to the population of correctional officers in general.

Given the strict limitations on the population from which the subjects were drawn, the decision was made to strive for an exhaustive coverage of the staff at this penal facility. Thus, the sample consists of all the correctional officers at a major correctional facility.

The protection of the confidentiality of the subjects in this study was a major concern. In preliminary discussion with correctional officers, the guards expressed a high level of anxiety that their superiors would discover through these tests that they were "cracking up" and they would be relieved of their duties and livelihoods. The correctional officers have expressed reluctance to sign their names on any tests or questionnaires. However, they voluntarily agreed to sign a
separate consent form for participation in the study which was returned in a completely different sealed envelope than the questionnaires were. No relationship exists between the consent form and the numerically coded questionnaires.

In addition, officers received in the written material accompanying the questionnaires assurances of the confidentiality of the study. No names or unit identifications were requested on the instruments, and instruments were submitted by the officers in sealed envelopes provided by the experimenter. The questionnaires were returned to me at the beginning of each shift meeting.

Instrumentation.

The two instruments utilized as measures of the two principal variables, the Tennessee Self-Concept Scale and the Maslach Burnout Inventory, have been discussed in detail in the review of the literature in Chapter 2. In this section, we shall review briefly the conclusions drawn at that point about these instruments in order to justify their use in the study.

The Tennessee Self-Concept Scale (TSCS) is a well accepted measure of self-concept frequently utilized in a variety of educational and psychological settings. The TSCS is designed so as to provide not only a total score representing level of self-esteem, but also subscores on
eight distinct dimensions of self-concept. While the strict differentiation of these dimensions is not clearly indicated by a factor analysis of scores, the subscales have been given a high construct validity. The test has been used extensively in research with good results. Test reliability and validity calculated in a variety of different ways on different trials have consistently verified the consistency of the instrument.

The test has been criticized on the grounds that the full clinical and research form of the TSCS attempts to calculate far too many distinct variables and indices from the scores on 100 items. Taking this criticism into account, the present study utilized only the nine basic test scores.

While there are numerous instruments propping to measure self-concept, the long history of successful use of the TSCS, its convenient design, and its simple, self-administered form suggested the TSCS as an appropriate tool for the current application.

The Maslach Burnout Inventory (MBI) is a far newer psychometric tool than the TSCS. The literature compiled by its originators shows acceptable construct validity, and high reliability on the trials on the questionnaire conducting by Maslach and others. The instrument was selected for this research for several reasons. First of all, the MBI is currently the only questionnaire propping
to measure specifically the stress reaction which has come to be known as burnout. Designed by one of the principal researchers in the field of human service occupational stress, the MBI is certainly a better attempt at the instrument of choice than one designed especially for this study by researchers less well versed in the complexities of the burnout syndrome. The use of the MBI in this study will in fact enable researchers to better assess the usefulness of the MBI, and perhaps to suggest improvements or changes in the new instrument. Again, the MBI is a self-administering form, which was deemed the most appropriate type of test for inclusion in the present study.

Participants were also asked to complete a correctional officer's survey form, which collected pertinent data, both occupational and demographic, relating to the officers. This survey form was designed explicitly for use in this study and is found in the appendix.

Data Collection.

Data collection was arranged directly through the institution at which the sample population was employed, after securing the formal cooperation of the appropriate authorities. Each unit at the facility holds a formal shift meeting at the beginning of each shift at which specific work plans and particular developments on the unit can be discussed. With the agreement of shift
supervisors, the researcher arranged to address each of these meetings, for each shift and each unit, over a period of several weeks.

At this meeting, the purpose of the study was explained to the correctional officers, and their voluntary participation in the study was urged. Guarantees of strict confidence in the handling of their replies were offered both verbally and in the written material accompanying the questionnaires, and each officer was told that should he or she request it, a copy of the completed research would be sent to them.

Materials distributed to each officer included the three questionnaires, prefaced by a cover letter reiterating much of the researcher's remarks, a large envelope for the return of the completed forms, and instructions for the completion of the tests. Officers were told that if they had difficulty in comprehending the instructions or using the test forms to feel free to call the researcher.

Two follow-up visits were made to each shift to encourage officers to respond to the questionnaires.

The TSCS forms were computer scored and tabulated by the test publisher. The Maslach forms were hand scored. At no point, were data associated with the name or unit of the respondent. This, of course, precludes the possibility of giving the respondent a copy of his or her own scores on the test. An explanation of this
impossibility was given to the officers, who were less concerned about seeing scores than about confidentiality of their results.

**Analysis of Data.**

First, a number of descriptive statistics describing the population and their scores on the two instruments was compiled. In addition, the simple process of plotting the distribution of TSCS and MBI scores on normal probability paper was employed in order to assess whether we are dealing with a normal distribution of data or not. Significant deviations from normality make the use of many statistical tests misleading and inaccurate. Since the distribution of the instrument scores over the correctional officer population cannot in advance be predicted to be normal, it is wise to test for normality, and to be prepared to use nonparametric statistics in case we discover a nonnormal underlying distribution. We will then be prepared to test each hypothesis either with the more powerful parametric method, or the more flexible nonparametric test. A survey of the data indicated a nonnormal distribution, making nonparametric techniques appropriate.

**Hypothesis 1.** TSCS and MBI scores are independent variables. This null hypothesis was tested using Spearman's $r$ correlation. This statistic has the advantage of being
sensitive to all forms of relationship, whereas Pearson's \( r \) is sensitive only to linear relation. In addition, Spearmans co-efficient of correlation is nonparametric, and thus can be used to measure correlation regardless of the population distributions of the two sets of test scores. Using an electronic computer, the nine TSCS scores were correlated with the three frequency and intensity MBI scores (in each case, the major subscales plus the total score); thus, actually testing 54 possible correlations.

**Hypothesis 2.** There will be no significant difference in the mean TSCS scores of burnt-out and other officers. This null hypothesis was tested through the Mann-Whitney U test as opposed to the use of the traditional t-test comparison of means because the plotting of data gave reason to believe that the distribution is quite a bit different from normal.

**Hypothesis 3.** There will be no significant difference between the mean TSCS and MBI scores of new and experienced officers. The Mann-Whitney U test was once again used because the distributions were found not to be normal.

**Hypothesis 4.** There will be no significant difference between mean TSCS and MBI scores of officers on high staff to inmate units and officers on low staff inmate units. Here again, the Mann-Whitney U test was employed
because evidence indicates the underlying distributions
are not normal.

For the reader's convenience, the tests referred to
above are described on the following page. Further infor­
ma­tion on the statistical methods employed in the analysis
of this data can be found in Dixon and Massey (1957) and
Bhattacharya and Johnson (1977).

**Nonparametric tests**

The Mann-Whitney U test: The Mann-Whitney U is
simply the nonparametric equivalent of the t-test comparison
of means, and in effect compares the median of two samples.
It is a rank statistic, meaning that each value in the
combined sample is replaced with its ordinal ranking, with
the lowest value being replaced by 1 and so on. Tied
values are replaced with an average rank. U is simply
the sum of the ranks of one of the two samples. For
large enough samples, the adjusted statistic

\[
U = \frac{U - \mu}{s}
\]

is approximately normal

\( (0, 1) \)

here

\[\mu = \frac{n_1(N+1)}{2}\]

and

\[s^2 = \frac{n_1n_2(N+1)C_X}{12}\]

where \(C_X\) is a correction factor for ties given
where \( q_j \) is the size of the jth tie.

Summary

In this chapter, we have discussed several vital aspects of the procedures used in this study, including the selection of the sample, the method of data collection, the rationale for the selection of the instruments used, and the techniques employed in the analysis of the data. Some time and care has been devoted to a discussion of both parametric and nonparametric approaches to the analysis of the data. Many social science studies wrongly employ parametric methods when the underlying assumptions of normality are unjustified. A survey of the data in Chapter 4 indicates that nonparametric tests were most appropriate.

Much emphasis was also placed on the guarantees of confidentiality. Preliminary discussions with correctional officers indicated much fear over job-related repercussions if confidentiality were breached.
CHAPTER 4
RESULTS AND FINDINGS

In the present study, correctional officers at a major Ohio correctional facility were studied to observe the relationship between "burnout" as measured by the Maslach Burnout Inventory and various factors. In particular, we are testing the hypothesis that there is a significant correlation between burnout and self-concept, operationalized for the purpose of this research as the principal nine scores on the Tennessee Self-Concept Scale (TSCS). We tested as well several hypotheses relating to the relationship between burnout, self-concept, and various job-related stress factors: the staff-inmate ratio, and the length of time each officer had been employed at the facility.

Seventy-three persons responded in full to the questionnaire packet. Of these 73, two questionnaires were subsequently discarded for having used the instruments improperly. Thus, we were left with a sample of 71 correctional officers. With a single exception, these officers were male. In terms of other demographic
variables, the sample broke down as follows:

**Age.** The age of the officers in the sample is

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>25</td>
<td>35%</td>
</tr>
<tr>
<td>30-39</td>
<td>30</td>
<td>42%</td>
</tr>
<tr>
<td>40-49</td>
<td>11</td>
<td>15%</td>
</tr>
<tr>
<td>50-59</td>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>60+</td>
<td>1</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Race.** Forty-four of the officers, or 61%, were black. Twenty-six, or 37%, were white. There was one Mexican American guard, accounting for 1% of the total.

**Educational level.** A number of guards failed to respond to the question regarding educational level. This occurred in six cases, 8% of the total. Of the guards who did respond to this item, 6% indicated that they had not completed 12 years of schooling. 75% indicated that they had completed 12 years, and 11% indicated more than 12 years of education.

The respondents indicated a range of values for the time spent in the employ of the institution, and for the size of the staff-inmate ratio, the two job-related stressors which the study examines. These were divided into convenient intervals.
Length of employment.

- 0-3 years: 29 (41%)
- 3-6 years: 18 (25%)
- 6-9 years: 10 (14%)
- Ten or more: 14 (20%)

Staff-inmate ratio.

- More than 1:15: 17 (24%)
- 1:15 - 1:25: 34 (48%)
- Less than 1:25: 20 (28%)

Hypothesis 1.

This hypothesis stated, in its null form, that the TSCS and MBI scores were independent variables. The hypothesis was tested using Spearman's correlation $r_{sp}$. A matrix of 54 correlations was calculated, testing for the independence of each of the nine TSCS scores used from the six subscales of the MBI (three frequency and three intensity scales). The matrix of correlations is displayed in Table 1. The critical value for $r_{sp}$, as with any non-parametric statistic based on rank, varies somewhat with the tie structure of the data. Given the sample size and the relatively small number of ties, it seems safe to disregard the correction factor and assume that the .05 level occurs at a correlation of .23. As we can see from the table, the actual values are many times higher than that, especially those involving the C, or personal
### TABLE 1
CORRELATIONS OF TSCS AND MBI SUBSCORES

<table>
<thead>
<tr>
<th>TSCS Scales:</th>
<th>T</th>
<th>R₁</th>
<th>R₂</th>
<th>R₃</th>
<th>CA</th>
<th>CB</th>
<th>CC</th>
<th>CD</th>
<th>CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(F)</td>
<td>-.75</td>
<td>-.63</td>
<td>-.48</td>
<td>-.75</td>
<td>-.73</td>
<td>-.34</td>
<td>-.57</td>
<td>-.30</td>
<td>-.55</td>
</tr>
<tr>
<td>A(I)</td>
<td>-.71</td>
<td>-.61</td>
<td>-.45</td>
<td>-.71</td>
<td>-.68</td>
<td>-.29</td>
<td>-.53</td>
<td>-.26</td>
<td>-.51</td>
</tr>
<tr>
<td>B(F)</td>
<td>-.57</td>
<td>-.37</td>
<td>-.40</td>
<td>-.61</td>
<td>-.49</td>
<td>-.23</td>
<td>-.44</td>
<td>-.16</td>
<td>+.33</td>
</tr>
<tr>
<td>B(I)</td>
<td>-.59</td>
<td>-.43</td>
<td>-.45</td>
<td>-.54</td>
<td>-.51</td>
<td>-.22</td>
<td>-.41</td>
<td>-.10</td>
<td>+.40</td>
</tr>
<tr>
<td>C(F)</td>
<td>+.88</td>
<td>+.93</td>
<td>+.72</td>
<td>+.77</td>
<td>+.91</td>
<td>+.73</td>
<td>+.80</td>
<td>+.96</td>
<td>+.98</td>
</tr>
<tr>
<td>C(I)</td>
<td>+.83</td>
<td>+.87</td>
<td>+.66</td>
<td>+.75</td>
<td>+.85</td>
<td>+.72</td>
<td>+.74</td>
<td>+.90</td>
<td>+.92</td>
</tr>
</tbody>
</table>

**MBI Scales:**
- A(F) - Emotional Exhaustion (Frequency)
- A(I) - Emotional Exhaustion (Intensity)
- B(F) - Depersonalization (Frequency)
- B(I) - Depersonalization (Intensity)
- C(F) - Personal Accomplishment (Frequency)
- C(I) - Personal Accomplishment (Intensity)

**TSCS Scales:**
- T - Overall Level of Self Esteem
- R₁ - Identity
- R₂ - Self Satisfaction
- R₃ - Behavior
- CA - Physical Self
- CB - Moral-Ethical Self
- CC - Personal Self
- CD - Family Self
- CE - Social Self
accomplishment scale of the MBI. There would appear to be a strong correlation between self-concept and burnout among prison correctional officers.

**Hypothesis 2.**

Hypothesis 2 states that there will be no difference in the self-concept of burnt-out officers—those scoring in the upper third of the MBI scores for the sample, and other officers. Using the Mann-Whitney U test, since a plotting of the data (see Tables 2-4) shows it to differ from a normal curve appreciably, we find that we must reject this null hypothesis. The TSCS total score $T$ is significantly lower for burnt-out officers ($U = -5.36$, $p < .001$) than for other officers. The mean TSCS score in the burnt-out group was 28.5, standard deviation of 9.64 and in the other group 47, with a standard deviation of 14.09.

**Hypothesis 3.**

This hypothesis asserts that there will be no difference between the self-concept and MBI scores of new and experienced guards. For the purpose of this study, new guards are defined as those employed three years or less. The importance of this question, we recall, is that it serves to gauge the cause-effect relationship between the work-situation and the self-concept variable. Since there is little reason to assume that new guards will have different self-concept scores when they begin employment
TABLE 2

MBI DISTRIBUTION FOR THE FREQUENCY RESPONSE OF EMOTIONAL EXHAUSTION
TABLE 3

MBI DISTRIBUTION FOR THE FREQUENCY RESPONSE OF DEPERSONALIZATION

![Graph showing the frequency response of depersonalization with MBI distribution.]

<table>
<thead>
<tr>
<th>Frequency</th>
<th>MBI Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>0.4</td>
<td>0.5</td>
</tr>
</tbody>
</table>

---

P(X)
than older guards had when they began, we can use this to assess whether self-concept actually falls with increased time in the correctional officers role. Also, it enables us to assess whether differences exist between MBI scores of new and experienced officers. The most significant finding was found to exist in the Personal Accomplishment Scale of the MBI. These results are found in Table 5.

It is found that indeed there is a significant difference between self-concept scores across the board between new and experienced officers. Again using simply the T score of the TSCS, which serves us admirably, we find from the Mann-Whitney test, using the normal approximation, that $U = 5.50 \, (p < .001)$, well above the critical value. The mean T score for new officers is 43.50; for experienced officers 38.27. The standard deviations are 14.40 and 15.15 respectively.

**Hypothesis 4.**

Hypothesis 4 states that there will be no difference between mean TSCS and MBI scores of officers on high staff to inmate units and officers on low staff-inmate units. Using the Mann-Whitney U test, we find we must reject this null hypothesis. It was found that to a significant degree, correctional officers from more poorly staffed units have lower self-concept scores. While the difference in T scores is significant, the largest difference shows up on the CE or social-self scale.
### TABLE 5

**DIFFERENCES IN MBI SUBSCALE SCORES BETWEEN NEW AND EXPERIENCED OFFICERS**

A

U (normalized approximation to Mann Whitney U statistic)

<table>
<thead>
<tr>
<th>Scale</th>
<th>A(F) - 4.65</th>
<th>A(I) - 4.54</th>
<th>B(F) - 4.06</th>
<th>B(I) - 3.22</th>
<th>C(F) + 5.47</th>
<th>C(I) + 5.60</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>
Both the length-of-employment and staff-inmate ratio categories show significant differences in MBI scores as well, with, as is to be expected, workers who have been present longer and who work with lower ratios experiencing more burnout. The results of these analyses are displayed in Tables 6 and 7.

Summary.

There is a strong correlation between measured self-concept, measured with the TSCS, and burnout as measured with the MBI. In fact, only a few of the 54 cross-correlations between TSCS and MBI subscales are not statistically significant, and a few are in the .85-.95 range, and as such are acceptable predictors of each other. Self-concept is not independent of the other factors which, as occupational stressors, play a role in creating burnout. Two such stressors are length of employment and staff-inmate ratio. Both of these variables were used to categorize the subjects into two groups. It was found in each case that there was a significant difference in self-concept scores between the two categories. There were also
### TABLE 6
DIFFERENCES IN TSCS SUBSCALE SCORES BETWEEN OFFICERS ON HIGH AND LOW STAFF INMATE UNITS

<table>
<thead>
<tr>
<th>Scale</th>
<th>T</th>
<th>Probabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A U</td>
<td>1.71</td>
<td>0.0436</td>
</tr>
<tr>
<td>R1</td>
<td>2.22</td>
<td>0.0136</td>
</tr>
<tr>
<td>R2</td>
<td>0.90</td>
<td>0.1841</td>
</tr>
<tr>
<td>R3</td>
<td>1.26</td>
<td>0.1308</td>
</tr>
<tr>
<td>CA</td>
<td>1.96</td>
<td>0.0250</td>
</tr>
<tr>
<td>CB</td>
<td>0.84</td>
<td>0.2005</td>
</tr>
<tr>
<td>CC</td>
<td>1.23</td>
<td>0.1093</td>
</tr>
<tr>
<td>CD</td>
<td>2.27</td>
<td>0.0116</td>
</tr>
<tr>
<td>CE</td>
<td>2.44</td>
<td>0.0073</td>
</tr>
</tbody>
</table>

U (normalized approximation to Mann Whitney U statistic)
TABLE 7
DIFFERENCES IN MBI SUBSCALE SCORES BETWEEN OFFICERS ON HIGH AND LOW STAFF-INMATE RATIO UNITS

\[ U \text{ (normalized approximation to Mann Whitney } U \text{ statistic)} \]

<table>
<thead>
<tr>
<th>Scale</th>
<th>(A(F))</th>
<th>(A(I))</th>
<th>(B(F))</th>
<th>(B(I))</th>
<th>(C(F))</th>
<th>(C(I))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- 1.99</td>
<td>- 2.08</td>
<td>- 1.56</td>
<td>- 2.24</td>
<td>+ 2.38</td>
<td>+ 2.03</td>
</tr>
<tr>
<td>Probabilities</td>
<td>.0233</td>
<td>.0188</td>
<td>.0606</td>
<td>.0125</td>
<td>.0188</td>
<td>.0212</td>
</tr>
</tbody>
</table>
significant differences in the MBI scores.
CHAPTER 5

DISCUSSION

The results of the present study verify that burnout as operationally defined by the scores on the six subscales of the Maslach Burnout Inventory (MBI) is related to aspects of the conditions of employment within the correctional officer population. Officers who have served longer display more burnout than newer officers, and officers who serve on more poorly staffed units are also found to be more burnt-out than officers on units with a high staff-to-inmate ratio.

The results also show that these conditions are good predictors of the Tennessee Self-Concept Scale (TSCS) scores of the correctional officers. Self-concept was found to be lower among the experienced officers when compared to the newer, and among the officers on the poorly staffed units. In addition, the correlation between nearly every subscale of the TSCS and MBI were found to be significant, many at the p < .001 level. These findings suggest that the self-concept of the correctional officers is affected by the working conditions experienced by the
officer. Although it is possible that lower self-concept serves as a predisposing factor toward burnout, it is difficult to account for the relation between conditions of employment and the T (total self-image) score on the TSCS through any other hypothesis.

In this chapter, we will first review the hypothesis, methodology, and findings of the study. Then we will discuss in detail the implications of the findings for each of the four hypotheses, with special emphasis on the difficult problem of cause and effect. We will explore some alternative explanations of the findings. Finally, we will discuss some recommendations for research in the relationship between burnout, other personality characteristics, and the occupational environment.

Review.

In recent years there has been much study of burnout, or emotional fatigue related to occupational stress, in the helping professions. Interest in stress as a non-specific etiological factor in both physiologic and psychologic disorders has grown rapidly in past decades, and the recognition of a specific syndrome related to interpersonal stress in the helping professions has been documented since at least 1974.

The population of correctional officers is in several ways unique among the helping professionals.
These workers are by in large not college educated, and rather than sharing in the esteem of the professional, have a rather unsavory social image. Yet, like other helping professionals, they work in close daily contact with the recipient population.

The review of the literature revealed that while there has been extensive research done in recent years on the occupational stress experienced by workers in a variety of contexts, there is very little work of a scientific nature which has been written on the plight of the correctional officer. And, this in spite of the fact that this population experiences at least three of the conditions which the literature indicates are major causes of occupational strain: role conflict, shift work, and direct client contact.

The MBI is an instrument developed only in 1979 to operationalize the concept burnout, which had come to be defined as the exhaustion associated with the third of these etiological factors--interpersonal stress. Little work has been done relating the quantity measured by this instrument to other factors measured by psychometric instruments. Given the social reasons to expect self-concept problems among the correctional officer population and the widespread use made of the Tennessee Self-Concept Scale as a measure, this study undertook to evaluate the relationship between self-concept, as operationalized as
the T scale on the Tennessee Self-Concept Scale, and burnout, as given by the six subscales of the MBI. It was found that the two are highly correlated.

The study was designed to answer three questions:
1. Is there a correlation between the self-concept and the degree of burnout measured among correctional officers? Do burnt-out officers tend to differ significantly from others in terms of their self-concept?
2. Is there a significant difference between the self-concept of new and experienced officers? This question should be of some help in assessing whether a correlation between self-concept and burnout implies a cause effect relationship between those two factors.
3. To what extent does staff-to-inmate ratio play a role in the relation between self-concept and burnout?

These research questions were phrased as four null hypotheses:
1. There will be no correlation between TSCS and MBI scores.
2. Burnt-out officers and other officers will not have a significantly different TSCS scores.
3. There will not be significant differences between the MBI and TSCS scores of new and experienced officers.
4. There will not be a significant difference between MBI and TSCS scores of officers of high and low
staff-to-inmate ratio units.

The methods utilized in the study were simple and straightforward. Correctional officers in a major state correctional facility were approached at their staff meetings and asked to complete questionnaires which included a special form collecting demographics, as well as the TSCS and the MBI, both of which are self-administered instruments. Seventy-two officers completed all the materials and returned them to the experimenter. The nine scales of the TSCS were correlated with the six subscales of the MBI using the Spearman nonparametric correlation coefficient $r_{sp}$. The other three hypotheses were tested using the normal approximation to the Mann-Whitney U-test.

The results showed the rejection of all the null hypotheses at strikingly high levels of significance. While a standard .05 level had been chosen as the threshold of significance, many of the probabilities found were at the .001 level. Many of the correlations observed were above the .85 level, higher than the test-retest correlation of the TSCS. These extremely striking levels of significance open the possibility that the quantity measured by burnout is actually, at least in part, an aggregate of other psychometric variables which are affected by the stresses of the occupational environment. In this case, it is self-concept which appears to be correlated at
remarkably high levels with the scores on the burnout inventory. Future research might study the relationship between burnout and other personality traits.

The Results

Table I displays the matrix of 54 correlations found when the nine subscales of the TSCS are cross-correlated with the six subscales of the MBI. The values of $r_{sp}$ are striking; high enough to provoke further curiosity about whether the two instruments indeed are measuring independent character traits. It is, of course, possible that in general these two measures are independent and the results found in the case of the present study reflects a relationship found only within the correctional officer population. Thus, the finding here can be explained by either of two alternative hypotheses which can be differentiated only by further research.

The highest correlations are found between the C subscales of the MBI--the personal accomplishment scales--and the scales of the TSCS. The correlation is positive, as we would expect, and has a mean value of .85 for the frequency subscale and .80 for the intensity scale, well in the < .001 range. Of these C scale correlations, the highest were with the CD and CE scales of the TSCS; that is, with the family self and social self scales.
Correlations involving the other two sets of MBI subscales were noticeably lower in magnitude, and negative in sign. This is also rather in accordance with expectation, since these scales, emotional exhaustion and depersonalization, have less construct relationship with self-concept subscales, and obviously score in the reverse direction. For both the A, emotional exhaustion, and B, depersonalization, subscales, the highest correlations were found with respect to the T score, the total TSCS measure, and the R3 scale, or behavior. Only two of the 54 correlations were lower than .23, the p = .05 critical value. These were the correlations between the two depersonalization scales and the CD, or family self scale on the TSCS.

The first null hypothesis, that the scores on the MBI and TSCS among correctional officers are independent variables is, thus, fairly resoundingly rejected. The correlations were uniformly at so high a level, and the literature on the MBI so scant at this point in the new instruments history, however, that the alternative hypothesis that the MBI is in effect measuring the same constructs as the TSCS must be seriously considered in future research before conclusions about "burnout" and its relationship to self-concept can be drawn with any certainty.

Hypothesis 2 was in effect a simpler check on the concepts being investigated in Hypothesis 1. The T scores
of the burnt-out officers are compared with the T scores for nonburnt-out officers. Burnt-out officers are defined as those scoring in the upper one-third of the population in the MBI, where a total MBI score calculated by summing the A and B scores and subtracting the C scores was used. The distributions of the two scores was compared with the Mann-Whitney U test, and it was found that to a .001 level of significance, the burnt-out officers had a lower self-concept than the nonburnt-out officers.

Even assuming that the relationship between burnout and self-concept that we are observing here is, in fact, a situation-specific relationship between to distinct quantities, and not an artifact of the instrumentation as suggested above, we can still arrive at two alternative hypotheses accounting for the findings.

1. High self-concept serves to protect a correctional officer from burnout. Low self-concept predisposes one to burnout.

2. Work in the prison setting leads not only to an appreciable increase in burnout scores, but also to a significant decrease in self-esteem as measured by the TSCS. In the first of these models, self-concept is seen as changing very little due to work stress; rather it serves as a predisposing factor in determining the individuals response to the stress. In the second model, self-concept changes right along with the burnout scores,
directly affected by occupational experiences.

The third and fourth hypotheses give us an opportunity to test these two possibilities, for they examine the differences in MBI and TSCS scores across two major dichotomies of the sample. These two dichotomies are:

1. New vs. experienced officers.
2. Officers on units with high staff-to-inmate ratios vs. those on low ratio units.

What was found as we saw in the previous chapter is that the differences for both these dichotomies was significant with both instruments. Null hypotheses three and four were rejected at the .05 level and in some cases higher.

In interpreting this finding in terms of the two alternative hypotheses presented above, a bit of caution must be exercised. Although the findings indicate that within our sample, self-concept is higher among newer officers than more experienced, we have not actually observed that for any given officer, that as he continues to work his self-concept falls. Similarly for the staff-to-inmate ratio condition. Although it is difficult to imagine some systematic process which could assign high self-concept people to the more adequately staffed units, we have still to consider this as a possibility to be ruled out explicitly in the future.

Nonetheless, the argument is compelling that not just burnout as defined as a reaction to occupational
stress, but self-concept in its traditional sense and as measured by the TSCS, is affected by the conditions of work at the correctional facility. The longer the correctional officer has worked in the facility, the lower his measured self-concept. The more poorly staffed his unit is, the lower his self-concept. Thus, it appears that occupational stress can alter the structure of the personality itself, and over a period of years seriously decrease the person's sense of value as a human being, especially in terms of family and social functioning. A glance at the normal approximations to the Mann-Whitney U statistic shows higher values for the T score differentials than for MBI differentials when comparing new to experienced officers. Thus, as time goes by, it may be that self-concept is being lowered while the classic signs of burnout are not visible.

Conclusions.

The present study then leads us to several conclusions.

1. The MBI, a relatively new instrument, appears at least with the present population to be highly correlated with the subscales of the TSCS. The personal accomplishment scale of the MBI, for example, is correlated at above the .90 level with the social self and family self scales of the TSCS. It is possible the MBI does not measure
a construct different from self-concept.

2. Burnt-out officers have a lower self-concept than nonburnt-out officers.

3. Burnout is significantly higher and self-concept significantly lower for experienced correctional officers than new officers.

4. The same is true for officers of low staff-to-inmate ratio units as compared to those on high ratio units.

5. For the new-experienced dichotomy, the difference in self-concept scores is far greater than the difference in MBI scores.

**Implications.**

The results of the present study have a number of implications for the administration of penal institutions, for research involving the Maslach Burnout Inventory as an instrument, and for the theory of stress and burnout in general. In each of these areas, the possible implications of the results of the current research invite specific pieces of future research which might answer some of the questions raised or choose definitively between alternative hypotheses suggested in this paper.

**Implications for Correctional Institutions.** The results of the present study show striking differentials between the scores of the MBI and TSCS of groups in different occupational conditions within the same major
Ohio correctional facility. While we have not specifically observed that either workload, as represented by the staff-to-inmate ratio, or simple time on the job, can effect over time the scores of given individuals, it seems difficult to come up with another plausible hypothesis to account for the differentials seen. The drop in self-concept between new and experienced officers was more marked than the increase in classic burnout as determined by the MBI.

Prison administrators need to become sensitized to the fact that prison conditions place a significant degree of strain on the workforce, strain which can actually be damaging to the personality of the employee, and thus, in the long run to his effectiveness as a prison officer. If self-concept is effected by the length of time and degree of workload, it is possible that other stress indicators not measured on the MBI are also affected detrimentally by work in the correctional facility. Physiological stress symptoms might be leading to ineffectiveness and absenteeism. Psychological symptoms might lead to bad judgment in the countless tense situations which can arise in the prison setting.

As we saw in the review of the literature, stressors well known from other research all occur in the occupational environment of the prison guard--role conflict, shift work, and direct recipient contact. The review showed the wide
range of symptoms which can be manifest as reactions to stress. The burnout concept refers to one specific constellation of stress-related symptoms. Although the MBI list of symptoms appears closely related to self-concept alterations, the fact that self-concept changes are more marked than MBI differences leaves open the possibility that other stress symptoms that have never been looked for are common in the high stress environment of the prison.

Future research on burnout of prison officers might well concentrate on examining some of the other manifestations of stress known to occur in high stress occupations. Incidences of certain stress-related ailments such as ulcer, allergies, and cardiac disturbances should be recorded. Some stress research has found, as we saw, specific blood chemistry alterations in high occupational stress situations, and these should be investigated. Such physiologic signs certainly have more "construct validity" than the newly developed MBI.

It would be valuable as well to trace the changes of selected psychometric variables over time in a sample of correctional officers, rather than comparing groups of new and experienced officers. Such research could give us a far more accurate sense of the lengths of time in which changes of any occupational or clinical significance occur.
It is always important in studies like the present one to distinguish between statistical and practical significance. While the results here clearly show statistical significance, the present research does not specifically determine whether or not the differences detected make any practical significance either for the health of the employee or the maintenance of the facility. Some of the studies suggested above will help determine the role of these stress indicators in the correctional officers' health. It would, in additional, be valuable to investigate whether the quality of work on the unit declines as the officer becomes more burnt-out. Ratings by supervisors, co-workers, and prisoners should enable us to answer some of these questions.

Implications relating to the use of the MBI.

As the Maslach Burnout Inventory is a relatively new instrument, and the first psychometric instrument developed to measure "burnout," we must assess carefully any evidence pertaining to its validity which is collected in the course of research. In this regard, the extremely high correlations between MBI and TSCS subscales invite speculation that the MBI in reality does not measure a construct distinct from the components of self-concept as defined in the TSCS. The depersonalization scale, scale B, of the MBI has the lowest correlation with the TSCS
subscales, an average of -.40. Even this correlation is well above the p = .05 threshold; but it leaves open the possibility that the B scale also contains a factor not found in the TSCS construct. The personal accomplishment scale, Scale C, with correlations above .90 with three TSCS subscales, is most likely not at all independent. Nor, is the A scale, which supposedly measures emotional exhaustion, but has a -.75 correlation with the R3 (behavior) subscale of the TSCS.

Several hypotheses should be tested regarding the MBI as an instrument to measure burnout. First, it is possible that the MBI is measuring a subset of TSCS scales. Studies comparing MBI and TSCS subscale results for a variety of populations should be collected to test this hypothesis. Second, it is possible that the MBI omits to examine entirely certain other factors related to the burnout syndrome, such as self-expression, internal-external locus of control, and authoritarianism. There exists a battery of well studied instruments to measure these constructs. Differences in the scores on these instruments between high and low burnout samples should be examined and correlated with scores on the MBI and the TSCS to identify components of the burnout syndrome which are not captured in either of the instruments utilized in the present study.
Implications for the study of stress and burnout.

The Selye definition of stress which was discussed in the review of the literature emphasizes the broad range of symptomatology found in the General Adaptation Syndrome. The stress concept began with Selye's recognition that this broad GAS was caused by a variety of distinct stressors, and that stress as a general concept was a valid entity regardless of the particular stressors instigating the adaptation reaction.

The conceptual basis of the Maslach Burnout Inventory was somewhat different. Maslach and Jackson (1979) claim that the instrument is designed to measure only that aspect of stress which has come to be termed burnout and which arises from direct client contact in the helping professions. Maslach, thus, focuses her attention on the specific effects of this client contact rather than on the general stress-related ailments which Selye finds most interesting. But, Maslach does so without any empirical evidence to verify either that the items in her questionnaire reflect all the possible signs and symptoms of client-contact stress, or that these items are not in fact, also affected by occupational stressors related to other aspects of the persons' work.

The results collected here suggest that one of the principle quantities measured by the MBI is self-concept.
The study suggests that in conditions among prison officers which the literature suggests should be high burnout conditions, self-concept is distinctly lowered. In this lowering of self-concept particular to client-contact stress, to burnout in Maslach's restricted definition, or is it common to occupational stressors in general? Answering this question will go a long way toward understanding the different types of responses to occupational stress, and the relationship between general stress reactions and reactions specific to certain occupational conditions.

Research on this question should not be difficult to design. We have asserted that the correctional officers work in situations involving three major stressors--role conflict, shift work, and direct client contact. A review of the literature should permit investigators to identify other occupational groups with shift work and role conflict stress but who do not have a significant direct client contact role. Comparisons of the two groups on a variety of stress-related measurements ought to shed light on the distinction between general and source-specific stress reactions. Identifying the role of lowered self-concept in general stress reaction would be a major aspect of this research.

The Selye theory of stress makes a minimal distinction between physiological and psychological stress. The present study revealed a significant role of self-concept
in response to psychological stressors. It would be most useful to determine whether purely physical stressors tended to reduce self-concept. Such an investigation would again shed light on the distinction between general responses to stress and those reactions which are specific to specific stress-provoking conditions.

This proposed research would be a step toward determining whether the concept of burnout has any construct validity. While the phenomenon of emotional exhaustion, depersonalization, and lowered sense of personal accomplishment has been noted in overworked helping professionals, the concept of burnout as used by Maslach goes beyond this. Maslach assumes that there is a basis for defining a distinct entity which is caused by interpersonal stress in the helping professions and which can in some way be distinguished from other stress and particularly other occupational stress reactions. The literature at this point, gives little empirical evidence for this assumption.

Summary of proposed future research.

In the preceding three sections, a number of suggestions for future research emerged. These are reviewed below:

1. What other stress-related disturbances are related to work in the correctional officer role? To what extent do
these symptoms actually affect the work of the officer?

2. How does burnout among correctional officers develop through time? Can changes in stress indicators be observed in individuals as time passes?

3. Does the MBI measure any quantities distinct from those measured by the TSCS?

4. Does occupational stress produce measurable changes in other standard psychometric variables, such as assertiveness, locus-of-control, and authoritarianism?

5. To what extent are the symptoms Maslach identifies as related to interpersonal stress specific to that stressor? To what extent are they general?

6. What role does lowered self-concept play in the general response to occupational stress? Does it play a role for example, in purely physical stress?

Conclusion.

While the statistical significance of the present findings are striking, the results ask more questions than they answer. The investigation set out to investigate the role of self-concept in the burnout of correctional officers in penal institutions, a poorly researched group of socially necessary human service workers. The correlations found between the self-concept and burnout measures was so striking, however, as to raise serious questions as to whether the two instruments, in fact, measure separable
quantities.

The findings indicate that to well above the .05 level of significance, identified occupational stress conditions are associated with a decrease in self-concept as represented by the T score on the TSCS instrument. Differences between self-concept across high and low staff-to-inmate ratio units, and across new and experienced workers, show that those we might expect to be more burnt-out, and who indeed measure as more burnt-out on the MBI, have distinctly lower self-concept scores as well.

Since previous research has identified self-concept as a predictor of task effectiveness, this lowered self-concept could have observable implications for the actual performance of work in the prison environment.

Future research was suggested to help clarify some of the questions raised by the present results. These suggestions included further investigation of stress in the correctional officer environment, continued evaluation of the MBI as an instrument to measure burnout among helping professionals, and studies to determine if indeed Maslach's concept of burnout as specific to certain types of occupational stress has any empirical support.
Dear Correctional Officers:

Being a Correctional Officer involves special talents and abilities in relating to people. It can also involve much stress, depending upon your perception of the particular demands of the job, and your self-concept. Your self-concept or the way you view/see yourself can be related to the stress associated with being a Correctional Officer.

The purpose of these questionnaires/tests are to discover how your self-concept influences your perception of stress, or the "job burn-out".

The "Burnout Inventory" is used by a wide variety of professionals in health and social services. The word "Recipients" refers to the inmates you work with.

The information gathered from this study will be used by myself for use in research for my doctoral dissertation. Be assured that all questionnaires/tests are STRICTLY CONFIDENTIAL, and that NO NAMES are to appear on any of the forms. Questionnaires/tests will be identified by code number and not by name. Complete anonymity is assured for each respondent. Results will be reported in statistical form without reference to any individual.

Thank you for your cooperation.

Sincerely,

[Signature]

Paul Schlachter
Doctoral Candidate
Guidance and Counseling
The Ohio State University
APPENDIX B

PROTOCOL NO. ______________________

--THE OHIO STATE UNIVERSITY--

CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in a study entitled "Concert of Self and Perceived Stress: A Study of Correctional Officers"

Dr. Arthur Marcic and Paul Schlachter have explained the purpose of the study and procedures to be followed. Possible benefits of the study have been described as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Further, I understand that I am free to withdraw consent at any time and to discontinue participation in the study without prejudice to me. The information obtained from me will remain confidential and anonymous unless I specifically agree otherwise.

Finally, I acknowledge that I have read and fully understand the consent form. I have signed it freely and voluntarily and understand a copy is available upon request.

Date: ______________________ Signed: ______________________

(Participant)

(Investigator/Project Director or his/her authorized representative)

(Person Authorized to Consent for Participant - If Required)

PA-027 (2/79) -- To be used only in connection with social and behavioral research for which an OSU Human Subject Review Committee has determined that the research poses no risk to participants.
APPENDIX C

CORRECTIONAL OFFICER QUESTIONNAIRE

( PLEASE, NO NAMES )

PERSONAL DATA

1. Age (as of your last Birthday) _______ Years

2. Sex: _____ Male _____ Female

3. Number of years of schooling completed, including High School: _______ Years

4. Are you (check only one):

   (1) Asian
   (2) Black
   (3) Mexican American
   (4) White, Caucasian
   (5) American Indian
   (6) Other (please specify__________)

5. Marital Status:

   (1) Single
   (2) Married
   (3) Divorced
   (4) Widowed
   (5) Other (please specify__________)

EMPLOYMENT DATA

1. How many years/months have you been at your present job? _______ Years _______ Months

2. How many hours per week do you work?

   70 hr/wk or more
   60 - 60 hr/wk
   50 - 59 hr/wk
   40 - 49 hr/wk
   30 - 39 hr/wk
   20 - 29 hr/wk
   less than 20 hr/wk

3. Total hours per week you are in direct contact with (recipients) inmates:

   _______ Hours

4. How many Correctional Officers do you work with on your assigned shift?

   _______ Correctional Officers

5. How many inmates are you responsible for:

   _______ 1 - 10
   _______ 11 - 20
   _______ 21 - 30
   _______ 31 - 40
   _______ 41 - 50
   _______ 51 - 60
   _______ 61 - 70
   _______ 71 - 80
   _______ 81 - 90
   _______ 91 - 100
   _______ 101 - 110
   _______ 111 - 120
   _______ 121 - 130
   _______ 131 - 140
   _______ 141 - 150
   _______ 151 - 160
   _______ 161 - 170
   _______ 171 or more
On the following pages are several statements of job-related feelings you might have. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, check the box marked "NEVER" and go on to the next statement. However, if you have experienced this feeling, indicate HOW OFTEN you feel it by circling the appropriate number on the 6-point scale. Then, decide HOW STRONG the feeling is when you experience it by circling the appropriate number on the 7-point scale. An example is shown below.

**Frequency of Feeling: HOW OFTEN:**

<table>
<thead>
<tr>
<th>NEVER</th>
<th>A FEW TIMES A YEAR OR LESS</th>
<th>ONCE A YEAR OR LESS</th>
<th>A FEW TIMES A MONTH OR LESS</th>
<th>ONCE A MONTH</th>
<th>A FEW TIMES A WEEK</th>
<th>ONCE A WEEK</th>
<th>EVERY DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Intensity of Feeling: HOW STRONG:**

1  2  3  4  5  6  7

1: VERY MILD, 2: BARELY NOTICEABLE, 3: MODERATE, 4: MAJOR, 5: VERY STRONG, 6: EXTREME

Example:

Go. I feel depressed at work.

**Frequency of Feeling:**

<table>
<thead>
<tr>
<th>NEVER</th>
<th>ONCE</th>
<th>A FEW TIMES A MONTH</th>
<th>A FEW TIMES A WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Intensity of Feeling:**

1  2  3  4  5  6

If you occasionally feel depressed at work (say a few times a month) you would circle the number 3. If, when you do feel depressed, it is a fairly strong feeling, but not as strong as you can imagine, you would circle a 6.
<table>
<thead>
<tr>
<th>HOW OFTEN:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>A few times a year</td>
<td>Monthly</td>
<td>A few times a month</td>
<td>Weekly</td>
<td>A few times a week</td>
<td>Daily</td>
<td></td>
</tr>
<tr>
<td>HOW STRONG:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Very mild</td>
<td>Moderate</td>
<td>Very strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I feel emotionally drained from my work.
   
   NEVER
   
   HOW OFTEN: 1 2 3 4 5 6

   HOW STRONG: 1 2 3 4 5 6 7

2. I feel used up at the end of the workday.
   
   NEVER
   
   HOW OFTEN: 1 2 3 4 5 6

   HOW STRONG: 1 2 3 4 5 6 7

3. I feel similar to my recipients in many ways.
   
   NEVER
   
   HOW OFTEN: 1 2 3 4 5 6

   HOW STRONG: 1 2 3 4 5 6 7

4. I feel personally involved with my recipients' problems.
   
   NEVER
   
   HOW OFTEN: 1 2 3 4 5 6

   HOW STRONG: 1 2 3 4 5 6 7

5. I feel fatigued when I get up in the morning and have to face another day on the job.
   
   NEVER
   
   HOW OFTEN: 1 2 3 4 5 6

   HOW STRONG: 1 2 3 4 5 6 7

6. I feel uncomfortable about the way I have treated some recipients.
   
   NEVER
   
   HOW OFTEN: 1 2 3 4 5 6

   HOW STRONG: 1 2 3 4 5 6 7

7. I can easily understand how my recipients feel about things.
   
   NEVER
   
   HOW OFTEN: 1 2 3 4 5 6

   HOW STRONG: 1 2 3 4 5 6 7
1. I feel I treat some recipients as if they were impersonal "objects".

<table>
<thead>
<tr>
<th>HOW OFTEN:</th>
<th>A few times a year</th>
<th>Monthly</th>
<th>A few times a month</th>
<th>Weekly</th>
<th>A few times a week</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOW STRONG:</td>
<td>1 Very mild</td>
<td>2 Moderate</td>
<td>3 Strong</td>
<td>4 Very strong</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

2. Working with people all day is really a strain for me.

<table>
<thead>
<tr>
<th>HOW OFTEN:</th>
<th>A few times a year</th>
<th>Monthly</th>
<th>A few times a month</th>
<th>Weekly</th>
<th>A few times a week</th>
<th>Daily</th>
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<tbody>
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<td>2 Moderate</td>
<td>3 Strong</td>
<td>4 Very strong</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

3. I deal very effectively with the problems of my recipients.

<table>
<thead>
<tr>
<th>HOW OFTEN:</th>
<th>A few times a year</th>
<th>Monthly</th>
<th>A few times a month</th>
<th>Weekly</th>
<th>A few times a week</th>
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<td>3 Strong</td>
<td>4 Very strong</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

4. I feel burned out from my work.

<table>
<thead>
<tr>
<th>HOW OFTEN:</th>
<th>A few times a year</th>
<th>Monthly</th>
<th>A few times a month</th>
<th>Weekly</th>
<th>A few times a week</th>
<th>Daily</th>
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<td>4 Very strong</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

5. I feel I'm positively influencing other people's lives through my work.

<table>
<thead>
<tr>
<th>HOW OFTEN:</th>
<th>A few times a year</th>
<th>Monthly</th>
<th>A few times a month</th>
<th>Weekly</th>
<th>A few times a week</th>
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<td>4 Very strong</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

6. I've become more callous toward people since I took this job.

<table>
<thead>
<tr>
<th>HOW OFTEN:</th>
<th>A few times a year</th>
<th>Monthly</th>
<th>A few times a month</th>
<th>Weekly</th>
<th>A few times a week</th>
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<td>4 Very strong</td>
<td>5</td>
<td>6</td>
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</table>

7. I worry that this job is hardening me emotionally.

<table>
<thead>
<tr>
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<th>A few times a month</th>
<th>Weekly</th>
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<td>3 Strong</td>
<td>4 Very strong</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

8. I feel very energetic.

<table>
<thead>
<tr>
<th>HOW OFTEN:</th>
<th>A few times a year</th>
<th>Monthly</th>
<th>A few times a month</th>
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<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Very mild</td>
<td>5</td>
<td>6</td>
<td>7</td>
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</tr>
<tr>
<td></td>
<td>Moderate</td>
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<td>7</td>
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</tr>
<tr>
<td></td>
<td>Very strong</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. I feel frustrated by my job.
   NEVER   HOW OFTEN: 1 2 3 4 5 6
   ⊗ HOW STRONG: 1 2 3 4 5 6 7

17. I feel I'm working too hard on my job.
   NEVER   HOW OFTEN: 1 2 3 4 5 6
   ⊗ HOW STRONG: 1 2 3 4 5 6 7

18. I don't really care what happens to some recipients.
   NEVER   HOW OFTEN: 1 2 3 4 5 6
   ⊗ HOW STRONG: 1 2 3 4 5 6 7

19. Working directly with people puts too much stress on me.
   NEVER   HOW OFTEN: 1 2 3 4 5 6
   ⊗ HOW STRONG: 1 2 3 4 5 6 7

20. I can easily create a relaxed atmosphere with my recipients.
   NEVER   HOW OFTEN: 1 2 3 4 5 6
   ⊗ HOW STRONG: 1 2 3 4 5 6 7

21. I feel exhilarated after working closely with my recipients.
   NEVER   HOW OFTEN: 1 2 3 4 5 6
   ⊗ HOW STRONG: 1 2 3 4 5 6 7

22. I have accomplished many worthwhile things in this job.
   NEVER   HOW OFTEN: 1 2 3 4 5 6
   ⊗ HOW STRONG: 1 2 3 4 5 6 7

23. I feel like I'm at the end of my rope.
   NEVER   HOW OFTEN: 1 2 3 4 5 6
   ⊗ HOW STRONG: 1 2 3 4 5 6 7
24. In my work, I deal with emotional problems very calmly.

**NEVER**

**HOW OFTEN:**

| 1 | 2 | 3 | 4 | 5 | 6 |

**HOW STRONG:**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

25. I feel recipients blame me for some of their problems.

**NEVER**

**HOW OFTEN:**

| 1 | 2 | 3 | 4 | 5 | 6 |

**HOW STRONG:**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
DIRECTIONS: Fill in your name and other information on the separate answer sheet.

The statements in this inventory are to help you describe yourself as you see yourself. Please answer them as if you were describing yourself to yourself. Read each item carefully; then select one of the five responses below and fill in the answer space on the separate answer sheet.

Don’t skip any items. Answer each one. Use a soft lead pencil. Pens won’t work. If you change an answer, you must erase the old answer completely and enter the new one.

<table>
<thead>
<tr>
<th>RESPONSES</th>
<th>Completely False</th>
<th>Mostly False</th>
<th>Partly False and Partly True</th>
<th>Mostly True</th>
<th>Completely True</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>M</td>
<td>PF - PT</td>
<td>M</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>F</td>
<td></td>
<td>T</td>
<td>T</td>
<td></td>
</tr>
</tbody>
</table>

TENNESSEE SELF CONCEPT SCALE

1. I have a healthy body ........................................................ 1
2. I am an attractive person ...................................................... 2
3. I consider myself a sloppy person ........................................ 3
4. I am a decent sort of person ................................................ 4
5. I am an honest person ........................................................ 5
6. I am a bad person .............................................................. 6
7. I am a cheerful person ........................................................ 7
8. I am a calm and easy going person ......................................... 8
9. I am a nobody ................................................................. 9
10. I have a family that would always help me in any kind of trouble ............................................................. 10
11. I am a member of a happy family .......................................... 11
12. My friends have no confidence in me ..................................... 12
13. I am a friendly person ...................................................... 13
14. I am popular with men ........................................................ 14
15. I am not interested in what other people do ............................ 15
16. I do not always tell the truth ............................................. 16
17. I get angry sometimes ....................................................... 17
18. I like to look nice and neat all the time ................................ 18
19. I am full of aches and pains .............................................. 19
20. I am a sick person .................................................................. 20
21. I am a religious person ........................................................ 21
22. I am a moral failure ............................................................ 22
23. I am a morbidly weak person ................................................ 23
24. I have a lot of self-control .................................................. 24
25. I am a hateful person .......................................................... 25
26. I am losing my mind ............................................................ 26
27. I am an important person to my friends and family .................. 27
28. I am not loved by my family ................................................. 28
29. I feel that my family doesn't trust me ................................... 29
30. I am popular with women ..................................................... 30
31. I am mad at the whole world ................................................. 31
32. I am hard to be friendly with .............................................. 32
33. Once in a while I think of things too bad to talk about .............. 33
34. Sometimes when I am not feeling well, I am cross .................... 34
35. I am neither too fat nor too thin .......................................... 35
36. I like my looks just the way they are .................................... 36
37. I would like to change some parts of my body .......................... 37
38. I am satisfied with my moral behavior ................................... 38
39. I am satisfied with my relationship to God ............................. 39
40. I ought to go to church more ............................................... 40
| 1. | I try to please others, but I don't overdo it. |
| 2. | I am just as nice as I should be. |
| 3. | I am not satisfied with my family relationships. |
| 4. | I understand my family as well as I should. |
| 5. | I should trust my family more. |
| 6. | I am as sociable as I want to be. |
| 7. | I am a man at I want to be. |
| 8. | I should be more polite to others. |
| 9. | I am a thinker. |
| 10. | I am not afraid to be what I am. |
| 11. | I ought to get along better with others. |
| 12. | I could be more trustworthy. |
| 13. | I would rather win than lose in a game. |
| 14. | I feel good most of the time. |
| 15. | I do poorly in sports and games. |
| 16. | I am a poor sleeper. |
| 17. | I do what is right most of the time. |
| 18. | I sometimes use unfair means to get ahead. |
| 19. | I have trouble doing things that are right. |
| 20. | I solve my problems quite easily. |
| 21. | I change my mind a lot. |
| 22. | I try to run away from my problems. |
| 23. | I do my share of work at home. |
| 24. | I quarrel with my family. |
| 25. | I do not get along with my family as I should. |
| 26. | I see good points in all the people I meet. |
| 27. | I do not feel at ease with other people. |
| 28. | I find it hard to talk with strangers. |
| 29. | Once in a while I put off until tomorrow what I ought to do today. |

Note: The numbers in parentheses correspond to the page numbers in the original document.
LIST OF REFERENCES


