

# THE CONTRIBUTION OF DEMOGRAPHIC AND COPING FACTORS TO BURNOUT IN VIRGINIA SCHOOL PSYCHOLOGISTS

by

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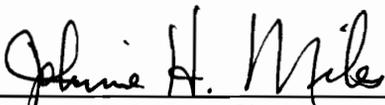
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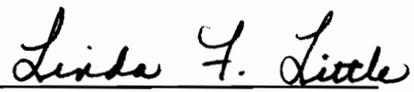
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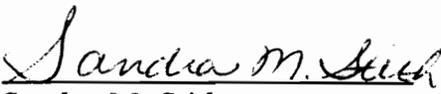
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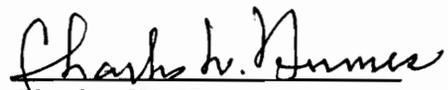
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(ABSTRACT)

The purpose of this study was to analyze the effects of job stress and other selected variables on self-reported levels of professional burnout among psychologists practicing in Virginia public schools. The study was also designed to analyze burnout not just as a series of changes resulting from job stressors, but explained by interactions of occupational stress with select demographic characteristics and coping variables.

A survey packet containing rating scales and a demographic sheet were mailed to 504 school psychologists, of which 180 responded with usable data. Data analysis primarily involved hierarchical multiple regression, testing the model that interactions of job stress with demographic/coping variables would significantly affect burnout outcomes.

Results indicated that burnout, specifically emotional exhaustion partially explained by an unclear or

interpersonally conflictual role and having little control over one's work, was significantly mediated by the coping strategy of cognitive problem solving. This exhaustion aspect of burnout was also substantially affected by membership in professional affiliations. However, job stress related to role overload significantly predicted burnout, but was not significantly mediated by any hypothesized demographic or coping variables.

It can be concluded that Virginia psychologists experience particular job stressors, such as role overload, that may lead to emotional exhaustion. Membership in collegial, professional organizations, along with inservice in specific problem-solving skills, may help alleviate this occupational stress. Future research is needed to determine how demographic and coping variables mediate specific aspects of work overload for these professionals.

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Rachel, Leslie, and Denise, his daughters, who offered their love and encouragement even as their father worked long hours away from home.

## DEDICATION

To Susie, who knew the author's overriding commitment to this project and was everlasting in her patience, encouragement, clerical expertise and most of all, love.

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## Chapter I

### INTRODUCTION

#### Background and Concept of Study

School psychologists and other educators are facing constantly changing job roles. These changes may result from recent school movements such as site-based management or from public pressure to fix classroom situations that apparently don't work (National Commission on Excellence in Education, 1983). These role shifts may occur while psychologists are still responsible for providing many services to potentially all the students within their assigned schools. As these school professionals have shown high stress levels and turnover rates in particular settings (Vensel, 1981; Wise, 1985), burnout may be a serious problem for front-line psychologists working in today's public schools.

Symptoms of burnout range from emotional exhaustion, depersonalization of clients, and a reduced sense of personal accomplishment to more specific strain variables such as physical complaints, anxiety, depression, and substance abuse. Pines and Maslach (1978) specifically described burnout as a "syndrome of physical and emotional exhaustion, involving the development of a negative self-concept, negative job attitudes, and a loss of concern and feelings for clients by workers" (p.233). Cherniss (1980) noted that the dictionary defines burnout as: "to fail, wear out, or become exhausted by making excessive demands on energy strength and resources" (Webster's Collegiate Dictionary, p. 16). These definitions make it clear that a stress model is implicit in the "burnout" construct. In this framework, worker's coping abilities and resources are ultimately overwhelmed by the demands of their jobs and the patterns of behaviors they consistently use in approaching these demands.

Burnout, then, can be viewed as a process that happens as workers continually perceive a discrepancy between their work results and expected outcomes. This

discrepancy may eventually seem insurmountable, as workers feel hopeless and trapped in a job where the value of occupational goals are limited by role demands. These demands are stressors which overwhelm individuals' capabilities and resources for effective performance.

For school psychologists as well as other human service providers, these demands may be both physical (e.g. case load, traveling long distances between schools) and psychological (e.g. teacher pressure to work with a student today). These stressors are possibly more intense for psychologists in schools as many occupy "boundary roles" or positions (Segars, 1977; Pierson-Hubeny & Archambault, 1987). Psychologists typically work at the boundaries of the school organization, and are not involved in essential instructional activities. Occupants of boundary role positions may also experience greater levels of role stress because many different persons, such as administrators, parents, teachers, and counselors, have their own agendas of what that psychologist should be doing (Segars, 1977).

Possibly because job descriptions are critical and often conflicting, school psychologists have devoted much of their own time and energy to defining their professional role (Benson and Hughes, 1985).

According to these role studies, Benson and Hughes stated that psychologists spend approximately 50% of their work-time in assessment activities and 20-40% in consultation. The remaining time may be devoted to counseling students, in-service training, administrative, duties, counseling parents, research, or program evaluation. These percentages are descriptive of most psychologists' jobs, as federal law mandates that special education students be assessed by qualified psychologists or psychometrists. This mandated priority is very time consuming, and is often judged by psychologists to be less worthy of their time and not as professionally esteemed as consultation (Cook & Patterson, 1977; Hughes, 1979).

Huberty and Huebner (1988) conducted a study of school psychologists, role stress and its relationship to burnout. In their national survey of randomly selected members of the National Association of School Psychologists (NASP), they found job and role definitions to be the major correlates of burnout.

Specific major correlates included clarity of role definitions, time time pressures that result from excessive demands (e.g. heavy caseloads), external pressures beyond their control (e.g. teacher pressure), and internal pressures regarding how psychologists perceived themselves (e.g. personality conflicts with others). The only major demographic correlate was age, with more experienced psychologists feeling less burnout.

Few studies examining the stress-burnout relationship have used large, heterogeneous samples comparable to Huberty and Huebner's survey of 234 school psychologists. These authors were also the first to study psychologists using measures of stress and burnout that appear to have adequate reliability and validity. No available research has analyzed how psychologists's intrapersonal characteristics, such as demographic or coping variables, might also mediate the effects of environmental/organizational stressors that, left unmediated, may produce burnout.

The current study employed this general stress - mediators - burnout research paradigm. In general, stress as an independent variable has been defined

within role theory / stress literature either objectively or subjectively. The researcher either objectively defined a stressor such as "noise-decibel levels," or the target persons in the study subjectively declared that certain role conditions such as "unclear job expectations" were stressful. The current study utilized school psychologists' own subjective reports of job stress. Virginia practitioners directly rated their work situations as to caseload, travel time, teacher pressures, administrator demands, political climate, and a host of other potential stressors. The measurement tool was the same instrument used by Huberty and Huebner (1988) in their national survey.

Dependent variables in job - role stress research are typically classified as strains or illnesses. Strains are viewed as minor side effects of working, such as disrupted sleep or increased pulse rates. Illnesses such as heart disease are often treated in the literature as linear outcomes, with stress causing strain causing heart disease. In the present study, physical as well as more psychological or emotional concerns were studied as burnout was treated as the dependent variable. Previous studies, although only a

select few, still indicated that practicing school psychologists are at risk for burnout, especially the aspect of the syndrome that involved emotional exhaustion. As professionals who likely work with excessive caseloads, changing political climates, or increasing teacher pressures, Virginia practitioners might also experience these negative outcomes.

### Problem Statement

Some researchers think that burnout, at different levels, is inevitable for helping professionals (Freudenberger, 1980). In the current study, however, burnout is viewed as the final step in a progression of unsuccessful coping attempts (e.g. working harder or longer) without using more functional, available coping resources. These coping resources become coping skills when Virginia psychologists adaptively used them to possibly counter the effects of perceived occupational stressors. The moderator or "buffer" variables included individual behaviors such as taking advantage of rest and recreation, individual-community relaxation activities like meditation or church, cognitive problem solving such as setting priorities,

and more emotional responses of feeling consistent support outside the work setting.

School psychologists may often work with organizational stressors such as work overload, unclear role expectations, or too little administrative appreciation for completed work (Reiner & Hartshorne, 1982; Huberty and Huebner, 1988). The problem is that these stressors may become antecedents of burnout without effective coping. Specific coping strategies were hypothesized that would mediate particular stress effects. Role overload stressors were thought to be mitigated by social support outside the work setting. Perceptions of being externally controlled or having unclear job expectations and interpersonal conflict were posited to be mediated by cognitive problem solving. For example, workers may clarify their roles through reorganizing their schedules and setting priorities.

Virginia school psychologists may also have specific demographic characteristics that are different from other psychologists. An earlier study of Virginia practitioners noted their demographic and job-value differences (Levinson, Fetchken, and Hohenshil, 1988).

Psychologists in that study were generally dissatisfied with system practices and advancement opportunities and slightly younger and less likely to leave their jobs within the next five years than those in a national study (Anderson, Hohenshil, and Brown, 1984) Anderson et al. study also found age to be positively related to job satisfaction, whereas Levinson et al. found an insignificant age - job satisfaction relationship. Finally, in the latter study Virginia psychologists who belonged to professional organizations (e.g. National Association of School Psychologists - NASP, Virginia Association of School Psychologists - VASP) were more satisfied with their work. Huberty and Huebner (1988) only surveyed professionally - affiliated psychologists, and thus they may have studied a sample biased towards greater job satisfaction. Both members of NASP - VASP and nonmembers were surveyed in the current study.

The current study was therefore the first research to analyze the stress-burnout relationship of a possibly select group of Commonwealth psychologists. Role theory notions of ambiguity, conflict, and overload were used to explain the effects of job stressors on burnout. The theoretical base for the analysis

also included a more interdisciplinary concept of stress and coping. It was hypothesized that certain demographic and coping strategies of Virginia psychologists would interact with job stress variables to significantly mediate stress as a source of perceived burnout.

### Purpose of Study

The results of the present survey of Virginia school psychologists provided an analysis of ways job-related stressors and demographic/coping variables interacted to affect burnout. Results may have political or programmatic significance as data suggest state or division-level strategies for reducing professional burnout. As such, the study was guided by specific research questions:

1. What are the perceived job-related stressors of Virginia school psychologists as measured by a role stress questionnaire (Reiner & Hartshorne, 1982)?
2. What are the perceived burnout levels of these psychologists, as measured by the Maslach Burnout

Inventory - Educator's Survey (MBI - Form Ed.)  
(Maslach, Jackson, and Schwab, 1986)?

3. What are the coping resources or strategies available to Virginia school psychologists, as measured by the Personal Resources Questionnaire (Osipow & Spokane, 1987)?

4. To what extent do specific demographic and coping variables interact with job stress variables to significantly mediate stress as a source of perceived burnout?

Question 4 implies a multiple regression analysis model using select demographic variables found relevant in previous research and those coping variables found salient due to the current study's basis in role stress/coping theory. Specific hypotheses to be tested include:

a. Job stress and coping variables substantially predict school psychologists' perceived levels of burnout.

b. Job stress effects on burnout serve as members of significant interaction terms with professional affiliation and age variables in accounting for burnout variance.

c. Job stress effects on burnout serve as members of significant interaction terms with coping variables in accounting for burnout variance.

### Definition of Terms

#### 1. Burnout

The term burnout involves three key dimensions. It is a measure of an individual psychological experience characterized by physical or emotional exhaustion, a negative change in response to others (e.g. depersonalization), and a negative change in response to oneself and one's personal accomplishments such as low morale (Pines & Maslach, 1978).

## 2. Personal Resources

Personal resources are available, potentially helpful individual behaviors including the use of recreation, self-care, rational-cognitive problem solving, and social supports. As they are utilized, personal resources become coping strategies.

## 3. Role Ambiguity

Role ambiguity is the degree to which role requirements and job expectations are made clear to a given school psychologist.

## 4. Role Conflict

Role conflict occurs when inconsistent job demands are placed on the psychologist. An example would be a school principal's message to "represent the school" when the psychologist views the parents as victims of the system.

## 5. Role Overload

Role overload is having too much to do - an excessive workload with not enough time to complete the work and followup on cases.

## 6. Stress

Occupational stress is a subjective, general term of negative evaluation for a state of upset, or its precipitants. These occupational precipitants are both physical (e.g. role overload) and psychological (e.g. role ambiguity, role conflict).

## 7. Mediator

A mediator is a variable whose levels influence the contribution of stress variables to burnout levels. This is equivalent to a variable which serves as a member of an interaction with stress variables as predictors of burnout. The mediator is significant only as a member of an interaction term which significantly predicts burnout.

### Limitations

1. This investigation and its findings were limited to the population of school psychologists practicing in Virginia public schools. Further, the restricted sample composed of psychologists who chose to respond to the surveys of this study, defined this data set. Generalization of the findings to other populations of psychologists was thus limited.
  
2. This investigation and its findings were limited by the measures and models used.
  
3. Burnout is generally viewed as an individual process. The current study was structured as to quantitatively analyze the interaction effects of stress X demographic/coping variables at one point within each psychologists' process. A more detailed, qualitative study may specify important, personal mediators to burnout for a smaller, select sample of educators. In effect, the personal meaning of these measures to individual psychologists can only be achieved through qualitative analyses, not with survey data.

### Overview of Chapters

The specifics of this study are presented in Chapters II through V. Chapter II pertains to the research and literature related to this study. Chapter III contains descriptions of the subjects for survey, the instrumentation, procedures, and analyses used for the investigation. Chapter IV contains the results of data analyses and relevant discussion. Finally, Chapter V presents a summation of the findings extracted from Chapter IV, conclusions and implications, suggestions for further research in the field, and a discussion of the relevance of the topic studied.

## Chapter II

### REVIEW OF LITERATURE

The purpose of this study was to analyze the effects of job stress and selected stressor-demographic/coping interactions on self-reported levels of professional burnout among school psychologists in Virginia public schools. As a frame for reviewing the unique role of psychologists in public schools, the first section of Chapter II summarizes the general research base of occupational stress and its relationship to burnout. As this relationship is not viewed as simply linear, mediating variables such as select demographics and use of coping resources are also examined. Here the author discusses a more comprehensive stress model which incorporates the perception of stress and coping strategies. Finally, although much has been written on the relationship between role/occupational stress and burnout across many helping professions, the school psychologist's role and burnout has been

infrequently studied. In the remaining portion of the chapter, the author focuses specifically on this research area.

### Occupational Stress

Many papers on occupational stress (OS) often begin with the remark that the concept of stress is unclear. One source of confusion may be whether to conceive of stress as a situational factor (an external stimulus that wakes a response) or a reaction (any specific physiological or psychological response of the body to a demand made on it). Hans Selye (1956), a pioneer in early stress research, labelled the reaction as "stress" and the external initiators of stress as "stressors."

Most of the OS research, however, has blurred this distinction (Holt, 1982). The basic proposition of the field is that some aspects of many kinds of work have bad effects on most people under certain circumstances. Thus research in the field has focused on those aspects of work that have or threaten to have bad effects on workers (Holt, 1982). These work aspects form the independent stress variable, while

the undesirable consequences, usually labelled as strains or illnesses, are dependent variables.

The main independent stress variables within OS research have been defined either objectively or subjectively. Objective stress is defined by the researcher or some other outsider. It has included variables such as noise levels, temperature, or other physical properties of the working environment. More social or organizational properties of work and its setting were inferred from worker reports and, while not directly measured, were still defined by the researcher and often cited in interpretations of findings. Caplan's (1972) study of work overload and role overload leading to heart disease is an example.

French & Caplan (1973) also began to examine more psychosocial, subjectively defined aspects of stress. They studied role ambiguity, the opposite of clarity about what one is supposed to do on the job. Among 205 NASA engineers, scientists, and administrators, role ambiguity was highly correlated with job satisfaction ( $r=-.42$ ). In examining role ambiguity,

research were studying one of the oldest subjectively defined variables in the OS literature.

### Role Theory

Role ambiguity along with role conflict are main constructs in the role theory - role stress literature. As cited in Rizzo et. al. (1970), both classic organizational theory and role theory dealt with role ambiguity. According to classical theory, every position in a formal organizational structure should have a specified set of tasks or responsibilities - a role. This formal definition of role requirements allows for a chain-of-command principle where employees know on what they have the authority to decide. If organizational members cannot distinguish what they are to accomplish or how they will be judged, that employee will hesitate to make decisions and will have to rely on trial and error in order to meet the boss' expectations. Katz and Kahn (1966) stated that "in its prototypical form, role ambiguity simply means uncertainty about what the occupant of a particular office is supposed to do" (p.206). Kahn et al. (1964) noted that there are

also consequences specific to the ambiguity experience  
- low self confidence and a sense of futility.

Katz and Kahn (1966) defined role conflict as "the simultaneous occurrence of two or more role expectations such that compliance with one would make compliance with the other more difficult" (p.204). Kahn et al. (1964) exemplified this inter-sender conflict when they described a foreman who was pressured for close supervision by his superiors and for looser supervision from his subordinates. Another type of intersender conflict is role overload. Here various role senders may quite legitimately decide that an employee perform a wide variety of tasks, but it is virtually impossible for the focal person to complete all of them within given time limits. As with role ambiguity, Katz et.al. (1964) stated that high levels of role conflict are related to increased job tension and less job satisfaction.

### Stress and Burnout

These earlier role theorists thus noted that certain worker strains were associated with stresses endemic to organizational structures. It was not until the

mid 1970's that Freudenberger (1974) used the term "burnout" to denote a process or accumulation of work stress, and resulting negative adaptations to that stress. Being trained as a psychoanalyst, his initial conceptions of burnout were based on clinical observation of young workers at alternative health care agencies. Within a few months, these idealistic men and women seemed more tired, apathetic, and needy than their clients. Their symptoms were accompanied by guilt, paranoia, and a sense of omnipotence which made it difficult for the workers to cut down their activity levels.

Maslach and Pines also popularized the burnout concept, not from an individual but a more social psychological perspective. As Maslach (1978) stated, "the search for causes of burnout is better directed away from identifying bad people and toward uncovering the characteristics of the bad situations where many good people function." (p.114). Burnout here was best understood in terms of situational sources of job-related, interpersonal stress. Their research thus examined not only helpers' reactions to their work but situational factors that contributed to these reactions. From questionnaires and interviews,

Maslach and Pines (1978) documented the presence of three critical factors within the burnout syndrome - emotional exhaustion, depersonalization, and lack of personal accomplishment.

Maslach (1982) also noted that "burnout" has become such a popular research construct that numerous, conflicting, and often impassioned perspectives on the concept have developed. This problem of "linguistic validity" (Payne, 1975) is very real, for to understand burnout we first need to know what it is. Unfortunately, there is no single definition that is accepted as standard. Maslach (1982), in analyzing commonalities among definitions used by most researchers, noted general agreement that burnout occurs at the individual level and is an internal psychological experience that is often negative for the individual.

Beyond these basic threads, she noted that consensus begins to break down. However, there are still three key aspects of burnout for which there is majority agreement (and conform, perhaps not incidentally, to the three factors measured in the Maslach Burnout Inventory - Maslach, Jackson & Schwab, 1986). These

dimensions continue to be exhaustion (both physical and especially emotional), a negative change in response to others (depersonalization or inappropriate attitudes towards clients that accumulate over time), and a negative response towards one self and one's personal accomplishments (also described as low morale, withdrawal, reduced productivity, or inability to cope).

Finally, there have been major themes across the literature as to the causes of burnout. The bulk of the literature has dealt with the helping professions, as interpersonal relationships within these situations are often considered emotionally stressful. Causal analysis has also focused on job stress and the characteristics of the organizational setting. There have also been more qualitative, case studies of individual causes of burnout (such as personal motivations or traits). Maslach (1982) again noted, however, that the "emphasis so far has been on situational and social causes more than personal ones." (p.33).

### Mediators to Stress-Burnout

This researcher has also decided to study school psychologists from an organizational, role stress perspective. The emphasis on role ambiguity, role conflict, and role overload as job stressors does not mean that those persons with high stress on the job are necessarily at risk for burnout. Although "stress" and "burnout" are similar concepts, they are certainly not identical. As stress is inevitable in the helping professions, burnout is not viewed as the result of stress per se but as a personal accumulation or pile-up of unmediated stress. If an individual is occupationally stressed and is of a particular age, occupational work, and has few personal resources or a limited repertoire of strategies to cope with environmental demands, then that person may be at risk at some later time for developing all or parts of Maslach's burnout syndrome.

As Selye (1956) originally noted, stress can have both positive and negative effects. Freudenberger (1983), with his clinical background, continued to argue the need for specificity when identifying etiology, symptoms, and effective treatment of burnout in any

given individual or system. Even more traditional role theorists (Kahn, French, and Cobb, 1974) at the Institute for Social Research (ISR) at the University of Michigan developed a model involving objective (e.g. noise), subjective (e.g. perceptions of job stress), response (e.g. maladaptive vs. adaptive), and mental health variables (e.g. futility) of an individual. In addition, they knew that the extent to which a person negatively experiences role conflict depended very much on that person's flexibility - rigidity and on his or her use of supportive relationships within the work setting.

Moderators to the role stress - burnout relationship have involved both individual (e.g. use of drugs, job perceptions, age, sex) and situational-organizational factors (e.g. support from supervisors, politics within the system). The ISR model was also used to study the mediating effects of social support outside the work setting (Cobb, 1976). Another more comprehensive model of the stress experience has been Patterson and McCubbin's (1985) model of family stress. Besides studying how a person perceives negative events (global vs. situational) and stress-strain (constant demand such as a handicapped

sibling), the model also assessed resistance capabilities within the individual and family. Here a critical distinction was made between available personal/family resources and actual coping strategies utilizing those resources. These resources may be familial (e.g. adaptability), social (e.g. voluntary organizations), or psychological (e.g. self-reliance). The resources are not what people do but what is available to them in developing their coping repertoires.

McCubbin et al. (1982) also noted that as coping responses are what individuals or families do, they can still be divided into two categories. There are responses such as alcohol use or relaxation, that can be functional or dysfunctional as they make people feel better but don't directly alter a troubled relationship. Responses that actually modify the situation can also be functional or not. General examples of both include negotiation in marriage and punitive discipline in parenting. For school psychologists in particular, responses that modify perceptions of their jobs as being externally controlled may include reorganizing their work schedule or peer supervision. Actually changing the agents or conditions which externally control their work

may involve negotiating with supervisors or school board members to achieve personal job goals. In responding to their perceptions of externally controlled work, psychologists may begin to recognize what they can or can't do to make their work less stressful.

Although there is growing OS literature on coping resources and strategies, few measures have been developed to describe workers in this manner. Osipow and Spokane (1987) developed the Personal Resources Questionnaire (PRQ) of the Occupational Stress Inventory (OSI) to measure use of recreation, self-care, felt social support, and the use of cognitive problem-solving skills in the face of work-related stresses. The authors interchangeably used the terms coping "resources" and "skills", as the PRQ reflected a combination of items tapping availability of social resources (social support) and both palliative (use of recreation, self-care) and situation-modifying (cognitive problem-solving) coping responses.

### The Role of School Psychologist

In providing an overview of general research in role stress, burnout, and their relationship, certain themes emerge that are also specific to research involving school psychologists and burnout. First, although helping professions such as psychologists and other mental health workers have been frequently described, their roles and thus their reactions to job stress may be just as varied within groups as they are across occupational fields.

In much the same manner, the literature suggests that the role of the school psychologist is also difficult to generalize. Hummel and Humes (1987) based their role descriptions of school psychologists on federal regulations included in the Education for All Handicapped Children Act (1977). According to this law, the services of psychologists working with handicapped students include:

1. Administering psychological and educational tests other assessment procedures.

2. Interpreting assessment results.
3. Obtaining, integrating, and interpreting information about child behavior and conditions related to learning.
4. Consulting with other staff members in planning school programs to meet the special needs of children as indicated by psychological tests, interviews, and behavioral evaluations, and
5. Planning and managing a program of psychological services, including psychological counseling for children and parents ("Education for All Handicapped", 1977, p.42479).

These role descriptors included not just assessment but more consultation and counseling activities. Although special education students receive the bulk of assessment time, school psychologists typically provide these services to all children enrolled in public schools. Their clients often include those students with significant emotional and/or behavioral problems which are not being addressed through special education services. In working with either special needs or regular education students, psychologists

spend about 50% of their time in assessment activities and 20% in consultation, with the remaining time divided among counseling students, in-service, administration, counseling parents, research, and program evaluation (Benson and Hughes, 1985).

### Stress of School Psychologists

Whether psychologists in schools test or consult, counsel or do research, work with regular or special education, they are still typically in support or staff positions. As such, these educators occupy what Kahn et al. (1964) referred to as a boundary position. This is a role where other professionals who define psychologists' responsibilities are located in a different system or within different departments or work units within one organization. General examples of this boundary role include salesman or purchasing agent (Segars, 1977). A key aspect of these roles is that even though the workers are organizational members, their work is often performed outside the boundaries of that organization. Concurrently, performance evaluations of boundary positions are typically done by persons outside the organization (Kahn et al., 1964).

Kahn and his colleagues also observed that persons in boundary positions often have no formal authority or power to exert control over the behavior of persons within or outside the work unit. The boundary professional must therefore rely on personal sources of expertise, ingratiation (e.g. talking the language of the client), or some quid pro quo arrangement (e.g. compromise). Besides having little authority, boundary persons often deal with two or more groups with different values or expectations from themselves and may often feel "caught in the middle." A high degree of role conflict may thus result for these professionals.

School psychologists may often feel caught between the expectations of teacher and principal, family and school, special education vs. regular education. A principal may ask the psychologist to observe a child in a teacher's class, when the administrator really wants the teacher evaluated. Teachers may refer students for assessment with the goal of having them removed from the classroom (and ease their workload), rather than truly wanting an evaluation of these student's needs. Wise (1985), in her national survey

of 534 school psychologists, asked respondents to rate or rank 35 stressful events typical of the role. The fifth-ranked item involved feeling caught between the child's needs and administrative constraints, as in trying to "fit" a child into an existing program.

Pierson-Hubeny and Archambault (1987) studied role stress among 209 school psychologists in Connecticut public schools. In comparison to other teacher groups such as social workers, reading specialists, guidance counselors, and classroom teachers, these psychologists reported high levels of role conflict and the highest mean score on role ambiguity. With regards to role ambiguity, the authors noted that the literature is scant. They hypothesized that it may be global pressures not necessarily intrinsic to an organizational position which contribute to role ambiguity. For example, Kahn et al. (1964) suggested that increases in role ambiguity (and role conflict) are related to rapid changes in the size and complexity of schools that increase the educator's workload (as cited in Rizzo, House, and Girtzman, 1970).

One source of role overload for psychologists in schools has been job descriptions driven by a federal mandate to test special education students. The identified number of these students has increased dramatically since the inception of this Public Law 94-142, The Education for All Handicapped Act (1975). Psychologists now spend a majority of their time in assessment activities (Lacayo et al. 1981; Ramage, 1981). These and other studies (Hughes, 1979) also indicate that psychologists generally desired to spend less time in assessment and more time providing a variety of services, including consultation. Smith and Lyon (1985), in a follow-up to an earlier national study (N=225), actually found a modest increase in the amount of time spent in consultation but also a significant increase in the amount of time desired for consultation. The authors also found job satisfaction to be moderately high yet lower than the earlier study indicated.

### Job Satisfaction

Numerous studies have linked job satisfaction with role stress of school psychologists. Although satisfaction is less inclusive and may be

qualitatively different than burnout (Huberty and Huebner, 1988), the studies have provided data on what psychologists like or dislike and therefore may find stressful in their work. A brief review of these studies to broaden role definitions is thus warranted.

Ahrens (1977) found heavy caseloads to be associated with increased role conflicts, and reported a significant negative correlation between these conflicts (e.g. ideal vs. real role activities) and job satisfaction. Significant positive correlations were found between satisfaction and income, community size, experience in the present position, professional experience, age, and education. In a state study of West Virginia psychologists, Solly and Hohenshil (1986) found that more than 35% of those surveyed (N=106) indicated dissatisfaction with their jobs. Particular sources of dissatisfaction included school system policy and practices, advancement opportunities, compensation, working conditions, and differences with supervisors.

In an extensive national study, Anderson, Hohenshil, and Brown (1984) surveyed 450 randomly selected members of the National Association of School Psychologists (NASP). In contrast to Solly and Hohenshil (1986),

results showed that only 14% of the respondents were dissatisfied with their jobs. Of the 20 subfactors measured, psychologists were dissatisfied with only two - school system policies/practices and advancement opportunities. Significant demographic predictors included age (positively related) and psychologist-to-student ratio (negatively related).

Levinson, Fetchkan, and Hohenshil (1988) used similar instrumentation to Anderson et al. (1984) but studied only Virginia psychologists. Further, both NASP and non-NASP members were surveyed. Results indicated that percentages of job satisfaction were similar in both studies. Among demographic variables, age was not found to be a significant correlate to satisfaction (although no direct statistical age-comparisons of the two samples were done). Professional affiliation, both in NASP (positive relationship) and the National Educational Association (negative relationship) were significant predictors. These results indicated that maybe Anderson et al.'s findings overestimated the job satisfaction of all school psychologists nationally, due to the study's exclusion of non-NASP affiliated practitioners from its sample.

Finally, job satisfaction studies may be most telling in defining a relationship between satisfaction and turnover. Vensel (1981) reported that 48% of the psychologists in an Illinois sample (N=650) planned to leave the profession within five years. Solly and Hohenshil (1986) also stated that 81% of their sample in West Virginia planned to seek other employment in less than five years. Even though these results cannot be generalized past their target state populations, the data still signal that turnover rates in some settings are related to psychologist role definitions.

#### School Psychologist Burnout

There has been a paucity of research concerning the relationship between role stress and burnout (as opposed to job satisfaction) among school psychologists. A review of the literature yielded only three studies. The first was conducted by Reiner and Hartshorne (1982) on 43 Kansas school psychologists. The respondents identified major job-related stressors as opposed to rating or ranking a pre-existing list. Using Freudenberger's (1980) Burnout Questionnaire to

generate dependent measures, results indicated that slightly less than half appeared to have burnout problems. Age, sex, and years of experience were not significantly related to burnout scores. Major identified job stressors included excessive caseloads, lack of time, perceived lack of training, and lack of support or appreciation. Most of these stressors are typical of boundary role positions.

Huberty and Huebner (1988) further investigated job correlates of burnout. They noted that Reiner and Hartshorne's (1982) study used a small sample and a burnout measure without adequate reliability and validity, thus limiting the generalizability of its results. The Maslach Burnout Inventory (MBI-Maslach and Jackson, 1981), a well-standardized measure, was thus given to a total of 299 NASP members. Huberty and Huebner did, however, use the previous study's results to develop a questionnaire of 14 perceived job-related stressors. Results indicated that substantial correlates of burnout were clarity of role definitions, time pressures that result from heavy caseloads, teacher prompting to do a better job, and personality conflicts with coworkers. Age was the single most important demographic predictor (negative

relationship). The authors concluded that "clearly, job and role definitions appeared to be the major correlates of burnout." (p.59).

Pierson-Hubeny and Archambault (1987) examined role stress and burnout from a more traditional role theory model. The authors studied 209 Connecticut school psychologists using the MBI plus the Role Questionnaire (RQ) designed by Rizzo, House, and Lirtzman (1970), and compared their results to other school division personnel's. The RQ was used to directly assess role stress, specifically role conflict and role ambiguity. Pierson-Hubeny and Archambault defined role conflict as the compatibility and congruency of role requirements, while role ambiguity concerned the clarity of existing job guidelines, certainty about one's duties and responsibilities, and ability to predict the consequences of behaviors on the job.

Results of this third study indicated that, once the covariate effects of demographic variables were removed, role conflict was a significant predictor of emotional exhaustion and depersonalization. Role ambiguity was a significant burnout predictor along

the dimension of personal accomplishment. The authors concluded that the school psychologists, as boundary agents, were distant from the inner workings of the school or school system and thus reported significantly higher levels of role conflict than did teachers or other specialists providing essential instruction. In particular, the researchers noted that based on respondents' comments at the completion of the survey, role stress may be attributable to such factors as:

1. The serious responsibility of the diagnostician
2. Lack of clinical supervision and feedback
3. A role frequently limited to assessment at the expense of consultation and counseling components
4. Administrative unappreciation for psychological services
5. Mixed level assignments that reduce the influence of the school psychologist to the individual case level and lessen his/her impact at the school level, and

6. Large and increasing caseloads (Pierson-Hubeny and Archambault, 1987).

### Chapter Summary

Limits to the school psychologist's role can be both externally-defined and intrinsic to the position. Federal law has mandated that psychologists test sometimes large numbers of students for possible special educational problems and to re-evaluate these students' needs at least every three years. The history of the role has also emphasized its boundary nature as a support position "on the outside of schools looking in."

Research examining the role stress - burnout relationship of school psychologists indicated that they can be at risk for high stress levels, job turnover, and burnout. Little research has focused on how individual differences of psychologists, specifically demographic and coping variable differences, might mediate the effects of job stress variables on burnout outcomes.

## Chapter III

### METHODS

Both national and state-based studies of role stress and burnout of school psychologists were examined in Chapter II. Job satisfaction of Virginia psychologists (Levinson et al., 1988) also identified demographic characteristics of practitioners which are specific to this state population. Building upon these results, the present study investigated Virginia psychologists' role stress, perceived levels of burnout, and personal mediators to this stress - burnout relationship.

Chapter III provides a description of the study's research methods. In particular, it includes a discussion of the design, site and subjects, instrumentation, procedures, and finally the methods by which the data were analyzed.

### Design of Study

The purpose of this study was to analyze the effects of job stress and other selected demographic - coping variables on self-reported levels of professional burnout among Virginia public school psychologists.

Data used to achieve this purpose were obtained using the survey research design. Surveys are a means of gathering detailed factual information that describes existing phenomena. They can also be used to identify problems and to justify current practices or future decisions (Isaac & Michael, 1981). The survey design was used in the current study to help substantiate a theoretical position involving job stress and worker burnout. This design also provided data for possible program interventions that may ameliorate the job stress effects on Virginia psychologists' burnout.

Mailed questionnaires are the most common survey research method. Advantages to this method are that it is relatively inexpensive, self-administering, and can be made wide-ranging and anonymous. Survey data from the current

study also resulted in demographic and test data that allowed for statistical analyses best suited to answer the research questions.

In particular, a set of closed-end, descriptive questionnaires and a demographic data form were chosen as the most efficient way to obtain the necessary data. Use of these survey instruments was based upon the following assumptions. First, each survey instrument had adequate reliability to provide usable data. The second assumption was that school psychologists were able to identify sources of stress associated with their jobs, physical-emotional components of personal burnout, and utilized personal resources.

#### Population and Subjects

Public education within the Commonwealth of Virginia includes 137 school divisions which are county or city-based and provide services to districts very large or quite small, highly urban or very rural. School divisions are geographically diverse to the point where the state superintendent's office has divided the Commonwealth into

seven regions in order to study more local characteristics of those divisions (Virginia Education Directory, 1990, p.18).

Subjects chosen were full-time public school psychologists employed in Commonwealth schools. These professionals have to be trained at least to the Master's level, and meet state certification requirements attesting to their competence in the field. Some school divisions are large enough to employ many practitioners, while others are so small as to contract privately for part-time services. As measured by the 1990 Virginia DOE Educational Directory and cross-tabulated with the DOE's most recent mailing list, 504 psychologists were employed by 120 school divisions during the 1990-91 school year. As in the previous study of Virginia psychologists' job satisfaction, the number of practitioners was small enough to choose to survey the entire population.

Subjects were identified and mailed survey packets using mailing labels provided by the Commonwealth's Department of Education. Approval for their cooperation in the study, plus a brief summary of study goals and specific directions for completing the enclosed instruments, were presented in a cover letter (see Appendix A). The letter was headed with

"Dear Colleague:", hopefully to appeal to the individual psychologist's possible intrinsic interest in assisting a peer's research.

Studying the entire population of professional colleagues also allowed the researcher to determine if the final sample (n=180), although representing a rather low response rate (e.g. 36%), was still representative of the true geographical distribution of psychologists across the Commonwealth. As Table 1 presents, rates of response across the seven geographic regions were distributed across five regions in ways that did not differ from those's regions population percentages. The two exceptions were Region 1 (somewhat under-represented) and Region 3 (over-represented).

Other data were noted in the Virginia DOE's latest demographic description of school psychologists in public schools (Division of Pupil Personnel Services, Annual Report, 1989). These data can be used to compare demographics of population vs. final sample respondents. For example, there were 68% females and 28% males responding to the 1989 annual report (4% missing data). Sixty percent of the respondents held Master's degrees, 22% had their Ed.S. degrees, 11% had their Ph.D.'s, and 4% had doctorate degrees

**Table 1*****Response Rates for Geographic Regions***

<u>Region</u>	<u>Population Percentage</u>	<u>Sample Response Rate</u>
Southside	19%	10%
Tidewater	20%	20%
Eastern	5%	18%
Northern	36%	35%
Central	10%	14%
Blue Ridge	7%	10%
Southwest	4%	7%

in education (Ed.D.). Contract lengths indicated 34% on 10-month contracts, 43% on 11-month contracts, and 23% on 12-month contracts.

In comparison, in the current study, there were 71% female and 29% male respondents. Forty-seven percent of the psychologists were Master's level, 33% had their Ed.S.degree, 11% were Ph.D.'s and 9% had their doctorates in education. Thirty percent held 10-month contracts, 41% had 11-month, and 29% had 12-month contracts. As these data indicate, the current sample was demographically representative of the Commonwealth's population of school psychologists except with respect to geographical distribution and degree-level held.

Discussion of specific procedural attempts to improve the study's response rate is presented later in the "Procedures" section of Chapter III. Discussion of bias issues with respect to future research is presented in Chapter V.

## Instrumentation

### "Job-Attitudes Survey" (JAS)

The set of survey instruments reflected the variables in the study. As a result, the survey packet contained three distinct, multi-itemed questionnaires and a demographic data form. One questionnaire (Reiner & Hartshorne, 1982) was also used in Huberty and Huebner's (1988) study and was obtained for the current research from the latter author (see Appendix B). It was originally designed to measure perceptions of 14 job-related stressors collected from psychologists' responses to the earlier Reiner & Hartshorne, stress-burnout study. Although in neither earlier study was this non-copyrighted instrument named, the current researcher chose to label it the "Job Attitudes Survey". Naming it the JAS was intended to allow the respondent to cognitively link it to the cover letter's emphasis on studying job "attitudes", as opposed to stress per se. As the stress construct was deemphasized, hopefully the bias effects of typical thoughts like "of course, I'm stressed at work" were mitigated.

The JAS utilized a Likert-type, 5-point response format. No total scores were generated. Although no specific

validity data has been generated on this stress scale, Huberty and Huebner's (1988) factor analysis of these role stress items does present a form of content validation (Anestasi, 1988). Four significant factors were produced in their study, which were named "Job and Role Definitions" (items 3, 4, 5, 6, 11, 14), "Time Pressures" (items 1, 2, 9), "External Pressures" (items 7, 8, 12), and "Internal Pressures" (items 10, 13). The reliability of the entire stress scale, using coefficient alpha values, was reported to be .80.

In the current study, consistency of measurement or reliability coefficients were also figured using Cronbach's alpha. The JAS, MBI and PRQ authors all reported Cronbach's coefficient alpha results as these are internal consistency measures for tests that may have multiple-scored items, such as rating scales using the Likert-response format (Anastasi, 1988).

Both these reliability and factor results generally helped determine if these three instruments, in previous studies, measured what they were intended to measure and did so in a consistent fashion. Initial data results in these studies answered the question "Can the instrument stand on its own?". Initial factor analytic and reliability results

(as already presented for Huberty and Huebner's study) are also presented from the MBI and PRQ technical manuals. These results are then compared with factor structures and reliability scores from the current study's use of the three instruments (although more specific item-factor structures, loadings, and percentages of total variance explained are presented as results in Chapter IV). All three instruments have had little confirmatory analysis with school psychologists, so the comparisons were made in order to continue to define the measures' appropriateness for the population under study.

Factor analysis of current JAS items also yielded a four-factor structure, with item item configurations just slightly different from the previous national study. Virginia psychologists' responses collected into factors labelled "Role Ambiguity - Interpersonal Conflict", "Role Overload", "External Control", and Facility Pressures". The coefficient alpha (all items) for the JAS was .74, while the split half correlation was .89. Both factor analytic and reliability coefficient results were comparable to those reported by Huberty and Huebner (1988) and validate the use of the JAS using factor scores that may be specific predictors to job stress of Virginia psychologists.

### Maslach Burnout Inventory (MBI-Ed)

Items for the MBI were "designed to measure hypothetical aspects of the burnout syndrome" (MBI Manual, 1986, p.6). The MBI-Form Ed (Maslach, Jackson, and Schwab, 1986) contains the same items as the MBI with the single modification of the word "recipient" to "student". Both utilize a Likert-type, 7-point format and contain 22 items (see Appendix C for ordering information). The MBI was chosen to generate dependent variables due to its extensive use in earlier studies and good psychometric properties.

Through original factor analysis of responses from 1025 health care professionals (Maslach & Jackson, 1981), three distinct subscales were developed which measure in terms of frequency. Results included subscale but no total scores. The Emotional Exhaustion subscale (EE=items 1, 2, 3, 6, 8, 13, 14, 16, 20) describes feelings of being emotionally overextended and exhausted by one's work. After adding item results on this subscale, cut off points for ranges are High= 26, Moderate= 17-26, and Low= 0-16. The Depersonalization subscale (DP=items 5, 10, 11, 15, 22) measures an impersonal response towards students. Cut-off points are High= >13, Moderate= 9-13, Low= 0-8. Finally, the Personal Accomplishment subscale (PA=items 4, 7, 9, 12, 17, 18, 19,

21) describes feelings of competence and successful achievement in one's work with people. It is scored in the opposite direction from the EE and DP scales, with cut-off points High= 0-30, Moderate= 31-36, Low= >36. Generally, then, on the MBI-Ed a high degree of burnout is reflected in high scores on the EE and DP subscales and in low scores on the PA subscale.

The three-factor structure of the MBI has been replicated with a sample of 469 teachers (Iwanicki & Schwab, 1981), 215 school psychologists (Aronin & Kubelun, 1981), and in other studies. Cross-validation of MBI content has thus been established in the literature. Reliability coefficients for each subscale using Cronbach's alpha were also reported in the MBI Manual (Maslach, Jackson, & Schwab, 1986). They were EE= .90, DP= .79, and PA= .71.

On the MBI, alpha coefficients for the current Virginia study were as follows: EE= .90, DP= .73, and PA= .80. Split-half correlations were also derived: EE= .83, DP= .75, and PA= .72. Both sets of reliability coefficients substantiated the functional reliability of MBI scores using original subtest items. Depending on the results of MBI

factor analyses, either original subtest scores or derived MBI factor scores were to be used as dependent measures in the study.

Factor analysis of Virginia respondents' MBI scores indeed yielded a three-factor structure with items exactly similar to those reported by its Maslach and Jackson (1981). The specific first factor (FMBIEE= "emotional exhaustion"), second factor (FMBIPA= "personal accomplishment"), and third factor (FMBIDP= "depersonalization") score alpha reliabilities were .90, .81, and .78, respectively. These results indicated that MBI factor content, and factor reliabilities were equal or exceeded reported original subtest alpha coefficients. Derived factor scores, as measures with good psychometric properties and very little intercorrelation, were thus selected as dependent variables specific to the population under study.

#### Personal Resources Questionnaire (PRQ)

The PRQ is one of three subtests of the Occupational Stress Inventory (Osipow & Spokane, 1987). It contains forty items divided into four subscales which tap four aspects of coping with job stress. The PRQ authors noted that based on an exhaustive literature review of coping

behaviors and their own factor analysis of 909 adult subjects (including school professionals), the four factor subscales were developed. These subscales were labelled Recreation (RE=items 1-10), Self-Care (SC=items 11-20), Social Support (SS=items 21-30), and Rational-Cognitive Coping (RC=items 31-40). Test materials include a protocol and rating sheet (see Appendix D for ordering information). Items are again presented in a five-point, Likert-type format. Item results are tabulated for each subtest - no total scores are derived. The authors also provide a profile form, where subtest raw scores can be converted into T-scores. They suggest that a T-score under 30 indicates a significant lack of coping resources, while scores in the range of 30 - 39 suggest mild deficits, and scores above 40 indicate average and above coping resources.

Content validity for each OSI subscale was established in a second, independent confirmatory factor analysis (Alexander, 1983). Factor structure and item loadings were found to be consistent with the item content of each OSI scale, including the PRQ. Each subscale's internal consistency using Cronbach's alpha coefficients were also reported Osipow and Spokane (OSI Manual, 1987) as follows: RE= .71, SC= .73, SS= .83, RC= .78.

Using PRQ results for Virginia school psychologists, alpha coefficients for individual subtests were as follows: RE= .73, SC= .64, SS= .83, and RC= .76. These results were high enough to substantiate the usability of original PRQ subtest scores. However, derived PRQ factor scores were also analyzed to potentially yield a relatively comparable four-factor structure and similar reliability estimates.

In the current study, factor analysis of Virginia PRQ responses did indicate a four factor structure, with item content largely similar to original PRQ scales. Psychologists in the current sample had personal resource factors which were named rest and recreation (FOSIRR), social support (FOSISS), community-individual relaxation (FOSICIR), and problem solving (FOSIPS). Each of these factors reflected similar item content except that Osipow and Spokane's "Self-Care" factor now involved both a self and community-relaxation aspect (e.g. meditation and formal religious activities).

Alpha reliability coefficients for these derived PRQ factors were as follows: FOSIRR= .82, FOSISS= .85, FOSICIR= .67, and FOSIPS= .80. All coefficients were comparable or above those reported in the OSI Manual, with the exception of the Community-Individual Relaxation factor. As this factor

also tended to operate differently than the original SC factor did with earlier study groups, it likely reflected subtle differences between those samples and Virginia psychologists' patterns of coping with job stress. Overall, though, the derived factors' reliabilities were suitable. Minor item content differences did not preclude these factors' use as valid, potential mediators to job stress of the specific population under study.

#### Information Sheet

Finally, the Information Sheet (Appendix E) was designed by the researcher to gather information such as current position, sex, age range, professional affiliation, completed years of experience, and other pertinent data. The personal data sheet was based on items originally presented in the Huberty and Huebner (1988) study. The form was then developed to tap specific, demographics deemed important by previous study results and current research questions. Although purely descriptive in nature, these data were highly informative and demonstrated some of the key demographic mediators to professional burnout.

### Procedures For Pilot Study

A brief pilot study (n=3) was done a month prior to the main research. The study was based in the researcher's own school division. The purpose of this pilot work was to examine completed protocols and gain peer feedback on survey logistics. Each school psychologist was asked to complete the surveys, noting administration time and unclear directions or items.

Upon examining completed protocols and from informal interviews, several changes were made in the completion instructions and the information sheet. Respondents were again reminded to complete only Section 3 of the OSI rating sheet. On the information sheet, the age variable was obtained as a range rather than a single year, since two field study respondents thought the original item was intrusive. Although the researcher chose to include the "psychologist to student ratio" (as a back-up to "number of students served"), both pilot study and main study results indicated that psychologists did not understand if this item involved their personal ratio or ratios within the general school division. The ratio variable was thus not used in data entry and analysis.

### Main Study Procedures

After pilot study changes were completed, survey packets were mailed to all psychologists (N=504) practicing in Virginia public schools. The packet also included a cover letter (Appendix A), stating the nature of the study and gaining permission for data collection while assuring complete anonymity in the data analysis process. A provision for later receiving a summary of the results was also provided. With this and the letter's salutation of "Dear Colleague" it was hoped that the intrinsic interest each psychologist had in the study area would improve the overall response rate. Finally, a self-addressed, stamped envelope was included for returning the completed protocols.

After approximately one month, postcard reminders were mailed to those psychologists who did not initially respond. The researcher chose to wait this long before following up for two reasons. Pilot study feedback indicated a rather long administration time (e.g. approximately 45 minutes) was necessary to complete survey instruments. Secondly, the packets were mailed during the time of the school year (e.g. mid-February) when assessment and academic counseling cases often begin to backlog. After another two weeks, telephone reminders were made to school psychologists

who also served as administrators in the larger school divisions. The initial 171 of returned packets was only moderately supplemented by these follow-up procedures.

In total, 195 psychologists responded of which 180 (36%) packets contained usable data. It must be pointed out that the researcher also received numerous narrative reasons, both on the returned cover letter and in oral communication, as to why the surveys were not be completed. One psychologist noted that she was enjoying working just part-time, so the results would not be indicative of her work stress in past years. Another psychologist, also responsible for administrating seven other practitioners, wrote on a blank cover letter "Sorry, but I just don't have the time for this." None of his fellow division-peers sent back completed protocols, either. After receiving numerous similar responses and having completed protocols arriving at the relatively slow rate of about three per week, it was decided to terminate data collection and begin data analysis.

### Data Analysis

The raw data obtained from survey rating scales and the information sheet were entered into a personal computer and analyzed using the statistical package SYSTAT: The

System for Statistics for the PC (Wilkinson, 1989). The data were first analyzed to determine the reliability coefficients and factor structures of survey instruments, as previously reported in this chapter. The research questions were then analyzed separately according to various statistical procedures deemed appropriate by this study. A regression model was developed to hierarchically test the general hypothesis that coping strategies and certain demographic and coping variables interact with job stress variables to significantly mediate perceived burnout outcomes of Virginia school psychologists.

The first three research questions were answered using descriptive statistics of means and standard deviations, plus principal component factor analysis. This latter statistical method typically reduces correlations among large numbers of variables into a few independent but conceptually meaningful composite variables called factors. Factor analysis also was used here for descriptive purposes. Answering these three research questions allowed the researcher to compare the current sample's raw score distributions and factor scores on the JAS, MBI, and PRQ to scores published in the literature. In effect, the results

helped to describe the present sample as comparisons were made to other published distributions of JAS, MBI, and PRQ results.

Research question 4 states the full model to be tested. The statistical analysis used was hierarchical multiple regression analysis, which tested the model including both main and interaction effects. The general model was that  $\text{Burnout} = \text{Job Stress variables} + \text{Coping variables} + \text{Demographic variables} + \text{Job Stress X Demographic variables} + \text{Job Stress X Coping variables}$ .

From this overall model, specific hypotheses to be tested were generated. Hypothesis 4a was stated as a theoretical question based in role stress literature: Do job stress variables and coping variables contribute significantly to the variance of MBI factor scores? Here the model hypothesized a set of JAS and PRQ main effects as significant contributors. As a multiple regression analysis, the model was stated as  $\text{Burnout} = \text{Role Overload (RO)} + \text{Ambiguity-Conflict (AC)} + \text{External Control (EC)} + \text{Facilities Pressure (FP)} + \text{Rest-Recreation (RR)} + \text{Social Support (SS)} + \text{Community-Individual Relaxation (CIR)} + \text{Problem Solving (PS)}$ .

The last two hypotheses were operationally defined as specific multiple regression models. Hypothesis 4b was stated as three separate models. The first two models tested job stress and age as main effects plus the interaction of the strongest job stress, main effects predictors with professional affiliation and age (e.g. Role Overload X Age, Role Overload X NASPVASP, External Control X NASPVASP). They were stated as  $\text{Burnout} = \text{RO} + \text{AC} + \text{EC} + \text{Age} + \text{NASPVASP} + [\text{RO} \times \text{Age}] + [\text{RO} \times \text{NASPVASP}]$  and  $\text{Burnout} = \text{RO} + \text{AC} + \text{EC} + \text{Age} + \text{NASPVASP} + [\text{RO} \times \text{Age}] + [\text{EC} \times \text{NASPVASP}]$ . Hypothesis 4b was also tested on an interaction that, based on previous role theory research, professional affiliation and age, may have significantly mediated the job stress effects of ambiguity-conflict on burnout. Operationally stated, the model was  $\text{Burnout} = \text{RO} + \text{AC} + \text{EC} + \text{Age} + \text{NASPVASP} + [\text{RO} \times \text{Age}] + [\text{AC} \times \text{NASPVASP}]$ .

Hypothesis 4c was also stated as three separate models for multiple regression analysis. The interaction of the strongest job stress main effect (e.g. Role Overload with Social Support) was tested in the model  $\text{Burnout} = \text{RO} + \text{AC} + \text{EC} + \text{Social Support} + [\text{RO} \times \text{SS}]$ .

Two other models tested the interactions of External Control X Problem Solving and Ambiguity Conflict X Problem

Solving. The job stress variables in these interactions were chosen both because of their strength as main effects predictors and because they were theoretically related to burnout. The problem solving variable was also used in the interactions because of its predictive significance as a main effect, and because it seemed a logical moderator of psychologists' feeling out of control and unclear or conflicted over their job roles. The tested regression models here were  $\text{Burnout} = \text{RO} + \text{AC} + \text{EC} + \text{SS} + \text{PS} + [\text{EC} \times \text{PS}]$  and  $\text{Burnout} = \text{RO} + \text{AC} + \text{EC} + \text{SS} + \text{PS} + [\text{AC} \times \text{PS}]$ .

### Chapter Summary

Virginia school psychologists were chosen as the source of investigation in the study. A packet of survey instruments were distributed to all psychologists in Commonwealth public schools, since the population was small enough (N=504) to sample it as a whole. The final sample (n=180) was then descriptively compared to the total geographical distribution of psychologists, as well as on other demographic indicators, to determine potential response bias.

Data collected from this survey research design were then computer-processed and analyzed. In initial data analysis, JAS, MBI, and OSI items were factor analyzed to insure the same factor structures found in previous studies. Specific item-factor loadings and content are presented in Chapter IV. Since both the JAS, MBI, and OSI had little confirmatory analysis with school psychologists, the above analysis was completed in order to continue to define their appropriateness for this sample. Since factor structures and associated reliability coefficients were found to be suitable, preliminary support for the use of these instruments in the study was obtained.

## Chapter IV

### PRESENTATION OF RESULTS

One hundred and eighty Virginia school psychologists responded to a mailed survey packet during the winter-spring months of 1991. The survey items related to their job stressors, perceived levels of burnout, plus coping and demographic variables which might have mediated the stress-burnout relationship. The results of the research will be presented in this chapter as answers to specific research questions.

#### Research Question 1

What are the perceived job-related stressors of Virginia school psychologists, as measured by a role stress questionnaire (Reiner & Hartshorne, 1982)?

This questionnaire, labelled the "Job Attitudes Survey" (JAS), was intended to measure perceived intensity of job

stress. It was used in a prior national survey of school psychologists (Huberty and Huebner, 1988). Presented in Table 2 are the means and standard deviations of scale items from the national study as compared to Virginia JAS results.

These two distributions were very similar in that both defined the same five items (e.g. 9, 14, 2, 1, 7) to which psychologists tended to respond in an affirmative direction (e.g. greater than a score of "3"). Three out of the first four items with the highest mean scores dealt with the stress of role overload. Both national and Commonwealth practitioners noted that they feel stressed from an excessive caseload and not enough time to complete work and followup. The second-highest rated item in both distributions involved a role description that was externally controlled by school system politics. The item rated fifth-highest by both samples dealt with having to use poor facilities on the job.

Factor analysis of both national and current JAS items allowed more detailed comparisons of the two samples' role stress. As mentioned in Chapter III, Huberty and Huebner's factor analysis produced four significant factors. The current factor analysis of JAS items again yielded a four-factor structure, but with item configurations somewhat

**Table 2*****Means of JAS Items: National and Virginia***

	$\bar{X}$		SD	
	National	Virginia	National	Virginia
Excessive Caseload	3.34	3.44	1.17	1.15
Lack of Time	3.56	3.64	1.09	1.09
Lack of Support	2.79	2.83	1.31	1.25
Administration Demands	2.70	2.87	1.12	1.09
Ill-Defined Job Role	2.62	2.57	1.24	1.05
Unclear Job Expectations	2.47	2.42	1.12	1.31
Inadequate Facilities	3.01	3.17	1.03	1.09
Teacher Pressures	2.54	2.53	1.03	1.09
Lack of Follow-Up	3.93	4.13	.99	.94
Inadequate Preparation	1.86	1.74	.94	.76
Little Job Input	2.58	2.53	1.23	1.16
Travel Time	2.20	2.23	1.14	.95
Personality Conflicts	1.87	2.03	.91	.96
System Politics	3.54	3.66	1.23	1.07

different. Virginia psychologists' responses collected into factors labelled "Role Ambiguity-Interpersonal Conflict" (items 5, 6, 8, 10, 13), "Role Overload" (items 1, 2, 9), "External Control" (items 3, 4, 11, 14), and "Facility Pressures" (items 7, 12).

As compared with Huberty and Huebner's first factor, review of item content within the current study's factor one (e.g. FJASAC = "ambiguity-conflict") denoted specific role stress involving not only role ambiguity but interpersonal conflict with teachers and other coworkers. The second factor (FJASRO = "role overload") was similar in content to the earlier study's "time pressures", but was named according to its meaning within the present study's role theory framework. Factor three (FJASEC = "external control") also contained items describing role stress, but specifically a role that lacks performance feedback and whose requirements are defined by political or supervisory personnel. The fourth factor (FJASFP = "facilities pressure") described external pressure, not from significant others but from increased travel time and poor facilities in which to work.

Factor loadings for Virginia psychologists' JAS stress items are presented in Table 3. The respective eigen values for the AC, RO, EC, and FP factors were 4.27, 1.87, 1.19, and

**Table 3**  
***Factor Loadings of JAS***

Item	Rotated Factor			
	AC	RO	EC	FP
5. Ill-Defined Job Role	70	-04	21	34
6. Unclear Job Expectations	70	-04	28	25
8. Teacher Pressures	63	26	-05	16
10. Inadequate Preparation	58	17	08	-10
13. Personality Conflicts	57	-06	25	14
2. Lack of Time	13	90	07	09
1. Excessive Caseload	05	86	11	18
9. Lack of Follow-Up	04	75	27	-01
3. Lack of Support	27	14	75	10
14. System Politics	15	04	73	02
11. Little Job Input	07	15	71	30
4. Administrative Demands	18	40	65	06
12. Travel Time	03	08	06	71
7. Inadequate Facilities	12	12	19	69

Note: Decimal points removed from factor loadings. AC = "Ambiguity-Conflict", RO = "Role Overload", EC = "External Control", FP = "Facilities Pressure".

1.03. Corresponding variance estimates, or percentage of total JAS variance explained by each respective factor, were 15.8%, 17.4%, 16.8%, and 9.7%. Corresponding variance estimates for Huberty and Huebner's four factors (e.g. Job-Role Definitions", "Time Pressures", "External Pressures", "Internal Pressures") were 31.6%, 14%, 9.2%, and 7.7%.

Direct comparisons of the two studies' item-factor loadings and variance estimates were not made due to specific factor item-content differences. However, both sets of factor results defined that, in general, psychologists felt stress associated with job and role definitions.

### Research Question 2

What are the perceived burnout levels of these psychologists, as measured by the Maslach Burnout Inventory - Educator's Survey (MBI - Form Ed.) (Maslach, Jackson, & Schwab, 1986)?

In most research literature, the burnout syndrome has involved three key aspects. One aspect was increased feelings of emotional exhaustion, where workers were no longer able to give emotionally. These workers also

developed cynical attitudes about their clients, and devalued their own personal accomplishments. In both previous norming studies and the current research, the MBI subscales were intended to measure burnout across these three dimensions: Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). Subscale means and standard deviations from the Technical Manual (1986) are presented in Table 4.

In the current study, summary means and standard for each subscale's raw score distributions were also calculated (see Table 5). Maslach, Jackson, & Schwab (1986) published their own cut-off scores for each subscale, thus allowing comparison of Virginia psychologist's mean scores to the distribution of norm sample scores. For the EE subscale, scores of 17-26 were considered in the "moderate" range. The current sample's EE mean of 20.63 thus falls within this range. Virginia psychologist's DP mean of 4.68 falls within the "low" (e.g. 0-8) range, while the sample's PA mean of 38.04 also falls within the "low" range (e.g. >35, as scale is scored in the opposite direction).

Factor analysis of MBI items in the current study yielded three significant factors with item content exact to the original published MBI subscales. These derived factors'

**Table 4*****Norm Means for the MBI***

	$\bar{X}$	SD
Emotional Exhaustion	20.99	10.75
Depersonalization	8.73	5.89
Personal Accomplishment	34.58	7.11

Note: Possible point ranges: EE = 0-54, DP = 0-30, PA = 0-48

**Table 5*****Means for MBI Subscales***

	$\bar{X}$	SD
Emotional Exhaustion	20.63	9.59
Depersonalization	4.68	4.26
Personal Accomplishment	38.04	5.74

Note: Possible point ranges: EE = 0-54, DP = 0-30, PA = 0-48

means and standard deviations are presented in Table 6. Factor loadings for Virginia psychologists' scale items are presented in Table 7. The respective eigen values for the three derived factors were EE= 7.28, PA= 2.81, and DP= 1.45. Their corresponding percents of total variance explained were 25%, 16.9%, and 10.5%.

Both descriptive summary statistics and factor analyses indicated that, for Virginia school psychologists, emotional exhaustion may best describe their type of perceived burnout. Their EE scores typically fell within the moderate range. However, according to Maslach, Jackson, and Schwab (1986), a high degree of burnout is reflected in high-range scores on the Emotional Exhaustion and Depersonalization subscales, and in low-range scores on the Personal Accomplishment subscale. Virginia psychologists did not exhibit high levels of burnout across any of the three dimensions.

These lower MBI results confirmed that Commonwealth school psychologists as a whole, may not currently suffer negative professional outcomes such as job turnover, absenteeism, or low morale. However, data results from the study's first research question indicated that these same professionals do generally agree that role overload, feelings of being externally controlled, and having to use poor

**Table 6*****Means for Derived MBI Factors***

	$\bar{X}$	SD
Emotional Exhaustion (FMBIEE)	19.70	8.94
Depersonalization (FMBIDP)	4.11	4.03
Personal Accomplishment (FMBIPA)	32.96	5.26

**Table 7**  
***Factor Loadings of MBI***

Item	Rotated Factors		
	EE	PA	DP
1. Emotionally Drained	80	-04	20
2. Used Up	81	11	11
3. Fatigued	75	-14	12
4. Empathy with Students	27	47	-13
5. Impersonal with Students	18	-23	30
6. Strain with People	61	-23	30
7. Effective with Problems	-15	67	-10
8. Burned Out	86	-09	25
9. Positive Influence	-24	76	05
10. Callous towards People	39	-31	60
11. Emotional Hardening	49	-31	51
12. Very Energetic	-50	60	-07
13. Job Frustrations	75	01	12
14. Working too Hard	69	-08	-11
15. Indifferent with Students	10	-12	75
16. Stress with People	49	-30	35
17. Relaxed with Students	05	59	-03
18. Exhilarated with Students	-08	59	-16
19. Job Accomplishment	-21	74	02
20. End of Rope	67	-18	17
21. Calm with Problems	-05	56	-15
22. Blame by Students	06	14	46

Note: Decimal points removed from factor loadings. EE = "Emotional Exhaustion", PA = "Personal Accomplishment", DP = "Depersonalization".

facilities are part of their work experience. As EE scores were moderate and burnout is conceived as an ongoing process, these professionals may especially be at risk for more advanced degrees of the experienced emotional exhaustion if they don't develop adaptive coping strategies.

### Research Question 3

What are the coping resources or strategies available to Virginia school psychologists, as measured by the Personal Resources Questionnaire (Osipow & Spokane, 1987)?

Results from the PRQ data analyses helped define specific ways Virginia professionals may cope with job stress. Through original factor analysis (Osipow and Spokane, 1981), four subscales resulted as described in Chapter III. Original means and standard deviations for these RE, SC, SS, and RC subscales (Technical Manual, 1987) are presented in Table 8.

Means and standard deviations were also calculated across published subscales for Virginia school psychologists (see Table 9). In comparison to the norming sample's subscale means, raw score distributions of Virginia practitioners indicated comparable use of all four types of

**Table 8*****Norm Means for the PRQ***

	$\bar{X}$	SD
Recreation	28.38	6.57
Self-Care	27.34	6.51
Social Support	41.16	7.23
Rational-Cognitive Problem Solving	37.72	6.59

Note: Possible point ranges for all subscales is 5-50.

**Table 9*****Means for Virginia PRQ Subscales***

	$\bar{X}$	SD
Recreation	28.24	6.04
Self-Care	28.00	5.54
Social Support	41.69	6.55
Rational-Cognitive Problem Solving	37.95	5.18

Note: Possible point ranges for all subscales is 5-50.

coping resources. When compared to the scales original cut-off scores (Osipow & Spokane, 1987), Commonwealth psychologists had mean scores on all four subscales within the "Average" range (e.g. T-score range of 40-59).

Factor analysis of Virginia PRQ responses did also indicate a four-factor structure. Factor item-content was again somewhat different than that reported by Osipow and Spokane (1987). Psychologists in the current sample had personal resources which were named "Rest and Recreation" (FOSIRR = items 1, 2, 3, 6, 9, 10, 16, 20), "Social Support" (FOSISS = items 21-29), "Community-Individual Relaxation" (FOSICIR = items 5, 7, 15, 18, 19, 30), and "Problem-Solving" (FOSIPS = items 34-40).

As compared to Osipow and Spokane's "Recreation" factor, this study's RR factor involved not only use of vacations and hobbies but personal rest. Both the original and current Social Support factors reflected almost equivalent item content, and were thus similarly named. In the current study, Osipow and Spokane's "Self-Care" factor involved both a self-relaxation (e.g. meditation) and community (e.g. formal religious and social groups) aspect. Finally, both the RC and FOSIPS factors reflected use of problem-solving

strategies, although the latter involved more generic coping responses rather than problem-solving specific to the job role.

In the current study, eigen values for the four factors were RR= 7.03, SS= 3.78, CIR= 2.59, and PS= 2.51. Percent of total variance explained by the four respective factors were 10.9%, 12.4%, 7.6%, and 9.0%. Of the four factors, Social Support explained the most variance of Virginia scores on the Personal Resources Questionnaire. Factor analysis of original normative data (Osipow & Spokane, 1981) also indicated that this factor explained most of the variance within PRQ scores. Felt social support therefore presented itself as potentially the most prominent mediator to job stress effects on burnout.

Social support as a buffer to work stress may be critical to boundary role school psychologists. As these professionals in Virginia judged role overload to a primary work factor, what happens when they have few school-level contacts with which to defuse this stress? As psychologists conflict with teachers or receive little positive feedback from supervisors, they may go to persons outside the work setting for empathy and support.

Virginia psychologists also utilized the coping strategies of rest/recreation and problem-solving. Results indicated that these persons enjoyed recreation, but also generally got adequate sleep and set aside time for activities they enjoy. Problem-solving strategies included setting priorities for use of time, identifying important elements in encountered problems, and thinking through the consequences of choices. Of particular interest are the problem-solving items which weren't significant contributors to the FOSIPS factor. These included feeling that there were other jobs they could do besides the current one, and periodically reorganizing work style and schedule.

#### Research Question 4

To what extent do specific demographic and coping variables interact with job stress variables to significantly mediate stress as a source of perceived burnout?

a. Job stress and coping variables substantially predict school psychologists' perceived levels of burnout.

b. Job stress effects on burnout serve as members of significant interaction terms with professional affiliation and age variables in accounting for burnout variance.

This last research question stated the main hypothesis of the study. It was posited that specific demographic and coping variables interact with job stress variables to significantly mediate stress as a source of perceived burnout. From this main model, specific hypothetical models were tested using multiple regression analysis. In each of the models, emotional exhaustion was chosen as the dependent burnout variable. This was because the EE factor was most prominent in the current study's and earlier factor analyses. The study's overall model was also most effective in predicting emotional exhaustion as compared to its effectiveness in predicting the other two burnout factors. Conversely stated, choosing EE as the dependent variable in the following hypotheses made the study's model limited in what type of burnout it could predict.

As a multiple regression model, hypothesis 4a was stated as  $EE = FJASRO + FJASAC + FJASEC + FJASFP + FOSIRR + FOSISS + FOSICIR + FOSIPS$ . As Table 10 indicates, this model was significant at predicting emotional exhaustion,  $F(4,175) = 12.77$ ,  $p < .0001$ ,  $R = .375$ . Stress scale factors contributed the most variance to EE in the following order: Role Overload (19.5%), External Control (7.0%), Facilities Pressure (.8%), and Ambiguity-Conflict (.1%). Coping

Table 10

*Multiple Regression Model for JAS and PRQ Factors*

Dependent Variable = Emotional Exhaustion

N = 179

DF = 8,170

P = .000

R<sup>2</sup> = .375

F-Ratio = 12.774

<u>Predictors</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>Std. Coef.</u>	<u>T</u>	<u>P</u>
Role Overload	.441	.061	.445	7.219	.000
Ambiguity Conflict	.027	.067	.027	.401	.689
External Control	.264	.061	.264	4.365	.000
Facilities Pressure	.090	.061	.090	1.468	.144
Rest/Recreation	-.121	.063	-.121	-1.931	.055
Social Support	-.149	.064	-.150	-2.342	.020
Community-Individual Relaxation	-.076	.062	-.075	-1.221	.224
Problem Solving	-.116	.064	-.115	-1.817	.071

variable contributions all resulted with negative standardized coefficients, which stated that EE was inversely related to each coping measure. PRQ factors contributed the most variance to EE in the following order: Social Support (2.2%), Rest and Recreation (1.5%), Problem Solving (1.4%), and Community-Individual Relaxation (.6%).

The first model resulted in EE burnout significantly predicted by role overload ( $p < .0001$ ). This RO factor involved excessive caseload and not enough time to complete cases or follow-up. RO was also prominent in earlier factor analyses of JAS scores. The EC factor was also significant ( $p < .0001$ ) as a predictor of EE. To test Hypothesis 4b, three separate models were analyzed. The first two models tested job stress factors and age as main effects, plus the interactions of the RO and EC factors (as the strongest stress-main effects predictors) with age and professional affiliation.

Results of the model  $EE = RO + AC + EC + Age + NASPVASP + [RO \times Age] + [RO \times NASPVASP]$  are presented in Table 11. The model was significant,  $F(7,172) = 13.77$ ,  $p < .0001$ ,  $R = .359$ , both age ( $p < .05$ ) professional affiliation ( $p < .03$ ) were also significant. As interactions with role overload, however,

**Table 11**

***Multiple Regression Model for [Role Overload × Age]  
and [Role Overload × NASPVASP] Interactions***

**Dependent Variable = Emotional Exhaustion**

**N = 180**

**DF = 7,172**

**P = .000**

**R<sup>2</sup> = .359**

**F-Ratio = 13.771**

<u>Predictors</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>Std. Coef.</u>	<u>T</u>	<u>P</u>
Role Overload	.282	.226	.284	1.249	.213
Ambiguity Conflict	.115	.062	.116	1.860	.065
External Control	.272	.061	.272	4.440	.000
Age	-.077	.038	-.129	-2.032	.044
NASPVASP	-.307	.136	-.144	-2.266	.025
[RO × Age]	.045	.040	.212	1.127	.262
[RO × NASPVASP]	-.047	.136	-.038	-.344	.731

both these demographic variables failed to significantly mediate RO's impact on emotional exhaustion.

In the model  $EE = RO + AC + EC + Age + NASPVASP + [RO \times Age] + [EC \times NASPVASP]$  its total p value ( $p < .0001$ ) was again significant (see Table 12). Age ( $p < .04$ ) and professional affiliation ( $p < .019$ ) were again significant main effects. The NASPVASP demographic as a interaction term with External Control also significantly moderated the latter's effect on external exhaustion. The  $RO \times Age$  interaction was again not significant.

The quality of this  $EC \times NASPVASP$  interaction was further refined as group means for this interaction were analyzed (see Figure 1). The original research hypothesis was that professional affiliation would moderate the stress effects of having an externally-controlled job. Group means indicated that, for internally controlled psychologists, belonging to NASPVASP did relate to slightly lower EE scores. However, for psychologists higher on the EC factor, membership seemed to positively relate with much higher EE scores. Higher EC psychologists who joined professional groups in Virginia still generally reported greater demands

Table 12

*Multiple Regression Model for [Role Overload × Age]  
and [External Control × NASPVASP] Interactions*

Dependent Variable = Emotional Exhaustion

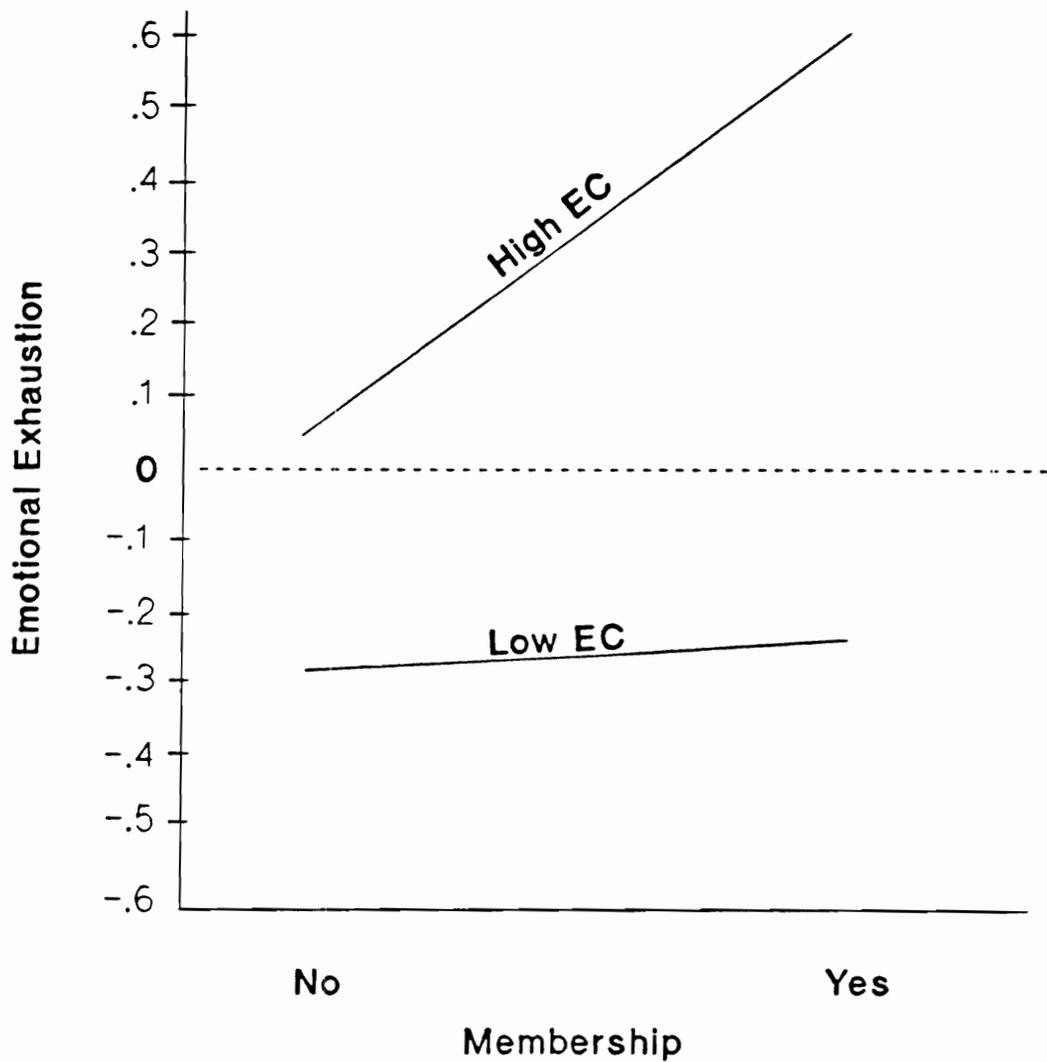
N = 180      DF = 7,172      P = .000

R<sup>2</sup> = .378      F-Ratio = 14.916

<u>Predictors</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>Std. Coef.</u>	<u>T</u>	<u>P</u>
Role Overload	.269	.178	.272	1.516	.131
Ambiguity Conflict	.130	.061	.131	2.130	.035
External Control	.777	.228	.776	3.402	.001
Age	-.080	.037	-.134	-2.147	.003
NASPVASP	-.314	.133	-.148	-2.364	.019
[RO × Age]	.040	.038	.191	1.059	.291
[EC × NASPVASP]	-.300	.131	-.523	-2.294	.023

**Figure 1**

*Group Means of [External Control × NASPVASP] as Related to Emotional Exhaustion*



and less appreciation from administration, little personal job-responsibilities input and greater stress about school division politics.

Role stress literature also suggested that professional affiliation may significantly mediate the stress effects of ambiguity-conflict on burnout. In the model  $EE = RO + AC + EC + Age + NASPVASP + [RO \times Age] + [AC \times NASPVASP]$ , the p-value was significant at the .0001 level (see Table 13). Age ( $p < .04$ ) and professional affiliation ( $p < .03$ ) were significant main effects.  $RO \times Age$  was a nonsignificant interaction, but  $AC \times NASPVASP$  was significant ( $p < .03$ ).

In further group means analysis of the  $AC \times NASPVASP$  interaction related to emotional exhaustion, (see Figure 2) an interesting relationship resulted. Psychologists with both lower and higher AC scores who belonged to NASPVASP had substantially lower reported EE scores than did Virginia professionals who did not belong. As role theory suggests, practitioners who have unclear job expectations or feel interpersonal conflict with other school workers may gain a sense of purpose and collegiality as members of professional organizations.

Table 13

*Multiple Regression Model for [Role Overload × Age]  
and [Ambiguity-Conflict × NASPVASP] Interactions*

Dependent Variable = Emotional Exhaustion

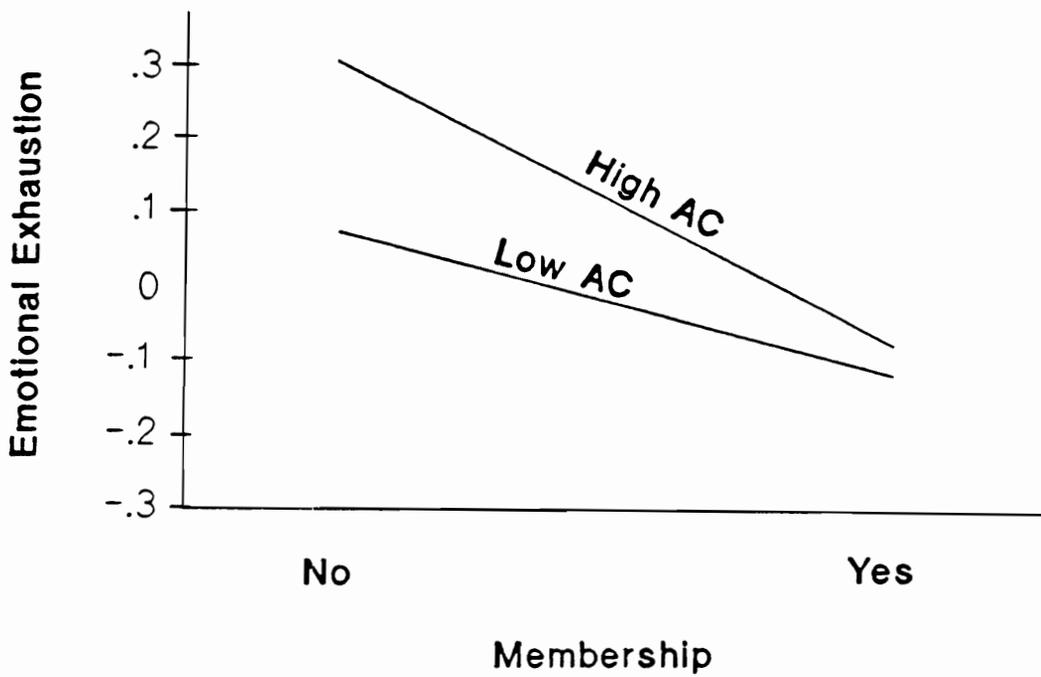
N = 180      DF = 7,172      P = .000

R<sup>2</sup> = .378      F-Ratio = 14.912

<u>Predictors</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>Std. Coef.</u>	<u>T</u>	<u>P</u>
Role Overload	.197	.178	.199	1.107	.270
Ambiguity Conflict	-.407	.235	-.409	-1.727	.086
External Control	.253	.061	.253	4.166	.000
Age	-.080	.037	-.135	-2.152	.033
NASPVASP	-.296	.133	-.139	-2.222	.028
[RO × Age]	.056	.038	.264	1.470	.143
[AC × NASPVASP]	.305	.133	.541	2.290	.023

**Figure 2**

*Group Means of [Ambiguity-Conflict × NASPVASP] as Related to Emotional Exhaustion*



Although age as a main effect was significant in the three previous models, it had minimal impact in RO X Age as a mediator to role overload's contributed variance to EE. The age X role overload relationship was thus further analyzed as mean RO stress scores were derived for each of the eight age-levels stated on the Information Sheet. In graphing this relationship, a general downward trend of role overload emerged as age increased. This result implied that as Virginia psychologists gained experience in their profession, they were able to organize or manage their jobs so that caseload responsibilities weren't typically perceived as work overload.

Hypothesis 4c was also tested in three separate multiple regression models. The interaction of the strongest job stress main effect (RO) with the strongest coping main effect (Social Support) was tested in the model  $EE = RO + AC + EC + SS + [RO \times SS]$ . Results indicated the model to be significant ( $p < .0001$ ) (see Table 14). Role overload ( $p < .0001$ ) and external control ( $p < .0001$ ) were significant main effects predictors. The RO X SS interaction, however, was not significant. This result indicated that the contributed variance of role overload to job stress was not significantly mediated by social support. For Virginia psychologists, role overload stress as it influenced burnout

**Table 14*****Multiple Regression Model for [Role Overload × Social Support] Interaction*****Dependent Variable = Emotional Exhaustion****N = 179      DF = 5,173      P = .000****R<sup>2</sup> = .347      F-Ratio = 18.376**

<u>Predictors</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>Std. Coef.</u>	<u>T</u>	<u>P</u>
Role Overload	.466	.061	.471	7.611	.000
Ambiguity Conflict	.105	.064	.105	1.630	.105
External Control	.291	.063	.291	4.618	.000
Social Support	-.137	.064	-.138	-2.156	.032
[RO × SS]	-.102	.064	-.102	-1.590	.114

was not moderated by receiving emotional support or empathy about work issues from significant others.

The last two regression models tested the mediating effects of problem-solving skills (PS) on job stressors involving external control and ambiguity conflict. The first model was stated as  $EE = RO + AC + EC + SS + PS + [EC \times PS]$ . Results indicated that it was significant at the  $p < .0001$  level (see Table 15). RO ( $p < .0001$ ), EC ( $p < .0001$ ), and SS ( $p < .04$ ) were significant as main predictors. The EC X PS interaction was also significant ( $p < .01$ ).

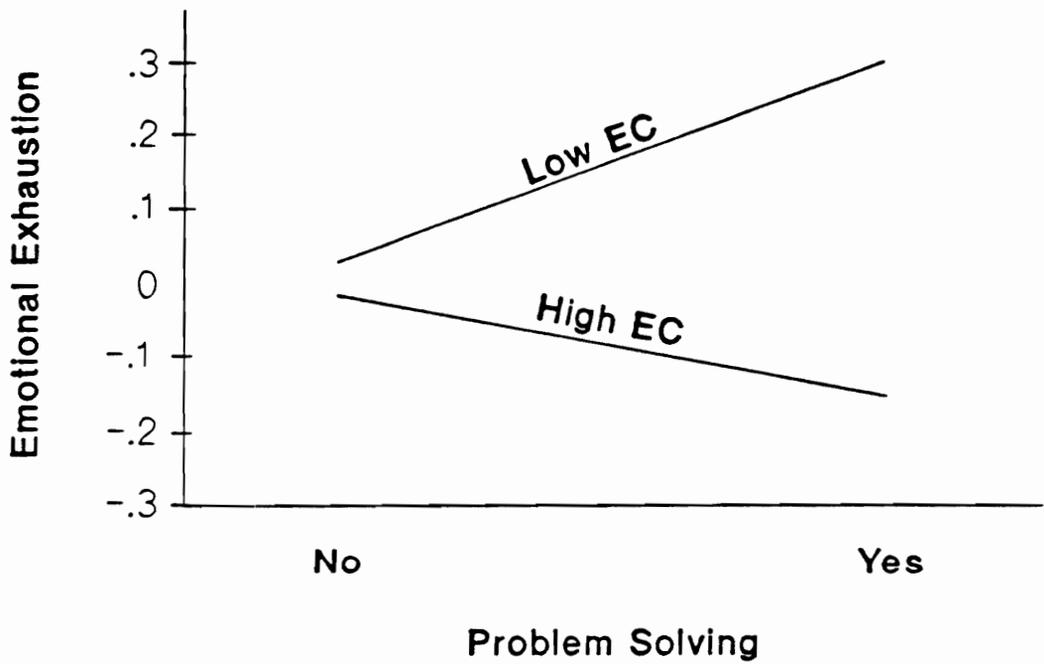
As problem-solving significantly mediated the effect of external control on emotional exhaustion, comparison of group means on the EC X PS interaction (see Figure 3) were done to help define the quality of this relationship. Group means indicated that psychologists higher on EC who reported limited use of problem-solving skills had moderately higher EE levels. Internally-controlled psychologists with higher PS scores had much higher reported EE scores than internals with lower PS scores. This result suggested that higher EC professionals used problem solving skills to modify stress. Lower EC psychologists still felt job stress and experience more frequent perceptions of emotional exhaustion, even when exercising problem-solving skills.

**Table 15*****Multiple Regression Model for [External Control × Problem Solving] Interaction*****Dependent Variable = Emotional Exhaustion****N = 179****DF = 6,172****P = .000****R<sup>2</sup> = .374****F-Ratio = 17.142**

<u>Predictors</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>Std. Coef.</u>	<u>T</u>	<u>P</u>
Role Overload	.449	.060	.453	7.452	.000
Ambiguity Conflict	.061	.064	.062	.949	.344
External Control	.298	.061	.298	4.862	.000
Social Support	.133	.063	-.134	-2.114	.036
Problem Solving	-.078	.063	-.078	-1.232	.220
[EC × PS]	-.165	.059	-.173	-2.792	.006

**Figure 3**

*Group Means of [External Control × Problem Solving] as Related to Emotional Exhaustion*



The final model tested the hypothesis that  $EE = RO + AC + EC + SS + PS + [AC \times PS]$ . Results indicated the overall model to be significant at the  $p < .0001$  level (see Table 16). Role overload ( $p < .0001$ ), external control ( $p < .0001$ ), and social support ( $p < .04$ ) were significant as main effects predictors. The  $AC \times PS$  interaction was also significant ( $p < .006$ ), indicating that generally the effect of an ambiguous or conflictual job on Virginia psychologists' emotional exhaustion is moderated by use of problem solving skills.

Closer review of this relationship between  $AC \times PS$  interactions and emotional exhaustion was again accomplished when interaction group means were derived (see Figure 4). Results indicated that psychologists with lower reported ambiguity-conflict and higher problem solving skills reported higher EE scores than did low AC - low PS respondents. Practitioners with higher AC and PS scores generally had lower EE scores than did high AC - low PS persons. Use of problem-solving strategies thus moderated the stress of psychologists with poorly articulated or interpersonally conflictual jobs.

Table 16

*Multiple Regression Model for [Ambiguity-Conflict × Problem Solving] Interaction*

Dependent Variable = Emotional Exhaustion

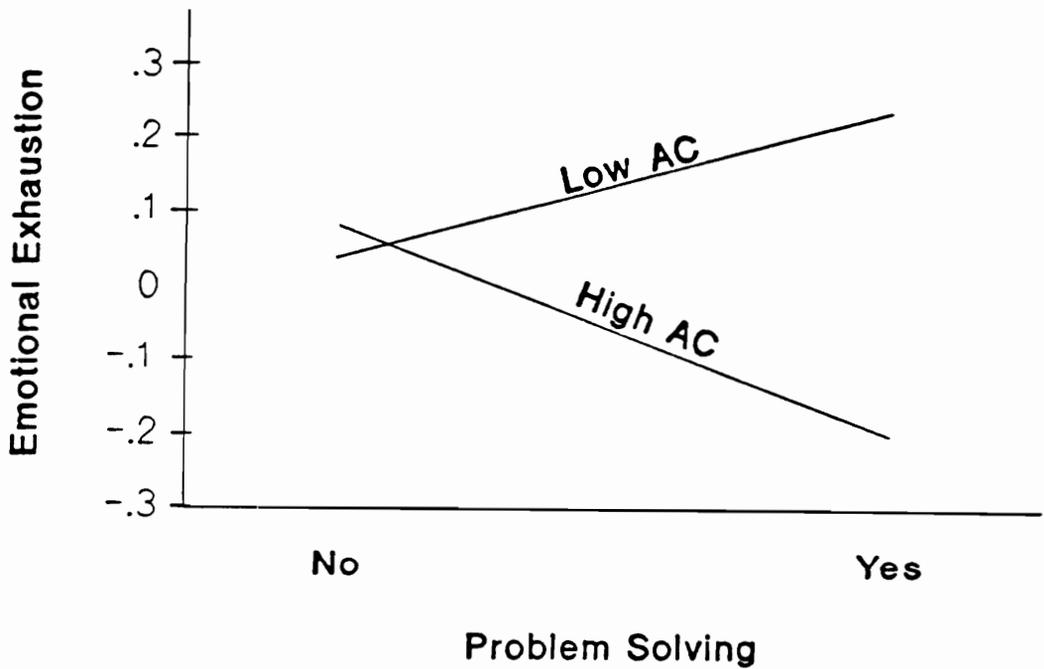
N = 179      DF = 6,172      P = .000

R<sup>2</sup> = .363      F-Ratio = 16.304

<u>Predictors</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>Std. Coef.</u>	<u>T</u>	<u>P</u>
Role Overload	.463	.061	.468	7.600	.000
Ambiguity Conflict	.041	.066	.041	.617	.538
External Control	.262	.061	.262	4.296	.000
Social Support	-.151	.063	-.152	-2.390	.018
Problem Solving	-.094	.064	-.093	-1.477	.141
[AC × PS]	-.119	.056	-.132	-2.123	.035

**Figure 4**

*Group Means of [Ambiguity-Conflict × Problem Solving] as Related to Emotional Exhaustion*



## Chapter V

### SUMMARY AND CONCLUSIONS

The preceding chapters described the need and purpose of the study, the problem to be researched, a review of the relevant literature, a presentation of the research methodology employed and an analysis of the data obtained from the research instruments. This chapter provides an overview of the major segments of the study, summarizes the research findings, presents conclusions and program implications, makes recommendations for further study, and presents a final, expanded discussion of applied recommendations.

#### Overview of the Study

The concept of occupational stress is grounded in organizational role theory (Kahn et al., 1964; Katz and Kahn, 1978). The purpose of this study was to analyze how

specific job stressors and demographic/coping variables interact to mediate occupational stress effects on perceived burnout levels. It was hypothesized that, based on previous research findings (Huberty and Huebner, 1988; Pierson-Hubeny and Archambault, 1987), role ambiguity and role overload would significantly explain burnout. Models of stress-coping (McCubbin, Cauble, and Patterson, 1982) were used to hypothesize that use of coping resources and strategies would also be related to less burnout. Finally, from previous study results it was hypothesized that demographic variables such as age (Huberty and Huebner, 1988; Anderson et al., 1984), professional affiliation (Levinson et al., 1988), plus coping strategies such as social support (McCubbin and Figley, 1983) and problem-solving (Osipow and Spokane, 1987), would interact with selected job stressors to mediate stress effects on burnout. Specifically, the study sought to answer the following questions:

1. What are the perceived job-related stressors of Virginia school psychologists?
2. What are the perceived burnout levels of these school psychologists?

3. What are the coping resources available to school psychologists?

4. To what extent do demographic and coping variables interact with job stress variables to significantly mediate stress as a source of perceived burnout? Specific research hypotheses were:

a. Job stress and coping variables substantially predict school psychologist burnout.

b. Job stress effects on burnout and age/professional affiliation variables serve as members of significant interaction terms in accounting for burnout variance.

c. Job stress effects on burnout and coping variables serve as members of significant interact terms in accounting for burnout variance.

In order to obtain answers to these research questions, a survey packet was mailed to 504 school psychologists practicing in Virginia public schools during the 1990-1991 school year. As a result of this mailing plus reminder postcards and followup telephone calls, 180 usable

questionnaire sets were received which constituted a response rate of 36%. Although the sample was rather small, demographics indicated that it was representative of the population except for moderate dissimilarities in geographical distribution and held-degree-levels. The primary data analytical procedure was hierarchical multiple regression to test the hypothesis that certain demographic and coping variables interact with job stressors to moderate the latter's effect on perceived burnout.

#### Summary of Findings

Specific results of this study indicated that:

1. Virginia school psychologists experienced job stress mainly in three distinct forms: role overload, externally-controlled jobs, and unclear or interpersonally conflictual roles. In a factor analysis of stress scale items, these RO, EC, and AC factors accounted for 50% of the total stress variance explained.
2. Virginia school psychologists' responses on a burnout measure, as compared to published norms, revealed emotional exhaustion within the moderate range, depersonalization within the low range, and lack

of personal accomplishment within the low range.

Factor analysis results indicated that emotional exhaustion accounted for 25% of the total explained variance of burnout scores.

3. Virginia school psychologists, as compared to published norms, exhibited use of coping resources within the average range. Both published and current factor analyses found the coping resource of social support to explain most of the variance within coping scale results.

4. In testing hypothesis 4a, the stress factor of role overload and the coping factor of social support (e.g. negative relationship) were found to be the most significant predictors of emotional exhaustion.

5. In testing hypothesis 4b, three separate regression models predicting emotional exhaustion were analyzed. All three models were significant at the  $p < .0001$  level. In all three models, age and professional affiliation were significant main effects. In the first model, age and affiliation, as members of interaction terms with role overload, failed to significantly mediate the impact of role

overload on emotional exhaustion. Results from the last two models run to test hypothesis 4b indicated EC X NASPVASP and AC X NASPVASP interactions to significantly mediate the EC and AC variables contribution to emotional exhaustion.

6. Review of group means for EC X NASPVASP and AC X NASPVASP interactions indicated that Virginia psychologists with higher external-control scores who joined professional organizations still reported little control over job responsibilities and negative administrative feedback which contributed to their emotional exhaustion. Psychologists with both higher and lower ambiguity-conflict scores who joined professional groups had much lower reported emotional exhaustion than those who did not belong.

7. In examining mean role overload factor scores across age groups, reported stress scores were lower as age increased.

8. Hypothesis 4c was also tested with three separate models. All three models were significant at the  $p < .0001$  level. In the first model, social support did not significantly interact with role overload to reduce stress contributions to emotional exhaustion. In testing both the interactions of external control and ambiguity-conflict stress factors with

problem-solving, both the EC X PS ( $p < .01$ ) and AC X PS ( $p < .06$ ) interactions were significant mediators to the stress-burnout relationship.

9. Upon review of EC X PS and AC X PS group means, it was found that psychologists with higher EC scores who reported limited use of problem solving had moderately higher levels of emotional exhaustion. Internally-controlled psychologists with higher PS scores had much higher reported EE scores than internals with lower PS scores. Virginia professionals with lower ambiguity-conflict and higher problem-solving scores reported higher EE scores than did low AC - low PS respondents. Psychologists with higher AC and PS scores generally had lower levels of emotional exhaustion than did those with high AC - low PS scores.

#### Conclusions and Implications

Based on the findings, numerous conclusions can be made and speculations drawn. Virginia psychologists experience job stress and burnout and exhibit coping strategies at levels comparable to earlier studies and national norms. In particular, the stress of role overload significantly predicts their levels of emotional exhaustion. Although in

comparison to test norms, Commonwealth psychologists experience this sense of feeling physically and emotionally "used up" at only moderate levels, role overload effects on burnout may still have more substantial implications.

School psychologists are typically viewed as experts by teachers (Gutkin, 1980), and their input is critical to many decisions made about students. As numbers of special education assessments or academic/behavior-problem referrals increase, more professionals may feel this overload as emotional exhaustion. As earlier research (Levinson et al., 1988) indicated, Virginia psychologists may be younger and less inclined to leave their jobs than their national counterparts. As the current study indicated, role overload scores were highest at the younger age-levels, making more Commonwealth practitioners at greater risk for stress-burnout outcomes.

It is also concluded from study results that Virginia psychologists' social support, even though explaining most of the variance across coping factor scores, does not significantly mediate the contributions of role overload to burnout. School psychologists, in general, are a different breed of educator. As boundary agents, they work in the schools but aren't "of the school." Even though Virginia

professionals may experience social support from other educators, administration, or family/friends and join professional organizations such as state or national associations of school psychologists, they still report significant perceptions of role overload. Fellow worker, family, or professional-collegial support may still not counter these psychologists' sense of being on their own with excessive caseloads to complete. Current study results were unable to define any substantial mediators to role overload's negative impact on emotional exhaustion.

Results do pinpoint mediators to other role stressors, specifically ambiguity-conflict and external control. For psychologists who have jobs with unclear role expectations or result in numerous coworker or family-school conflicts but who also joined national and/or state associations of colleagues, their job stress effects on burnout were mitigated. This AC factor's influence on emotional exhaustion was also substantially mediated by use of problem-solving skills. Use of these skills may moderate the stress of poorly defined or conflictual jobs as psychologists systematically solve some of these work related concerns.

In joining professional groups, Virginia psychologists may gain a greater sense of professional identity. Boundary

issues, role ambiguity and conflict may become secondary concerns as group members support each other and collectively problem-solve how to deal with stressors typical to the field.

In interaction terms with external control, both problem-solving and professional affiliation variables were significant mediators to the job stress - burnout relationship. Virginia professionals higher on EC but also higher on problem-solving, reported moderately less emotional exhaustion. They may indeed use problem-solving skills such as reorganizing work schedules or time management to gain a greater sense of control in the job. However, internals with high problem solving skills had much higher reported EE scores. Emotional exhaustion was also more characteristic of externally-controlled psychologists who joined professional groups.

These conclusions indicate that psychologists who perceive themselves as having little job input or gaining little positive feedback from administrators don't change these perceptions when they join professional affiliations. They do, however, report less burnout as related to problem-solving skills. Organizations such as NASP or VASP may support externally-controlled psychologists informing

school division of workshops on problem-solving strategies designed to give members a sense of control over their work.

According to study findings, these professional groups may already help provide more secure role identities for Virginia psychologists with ambiguous job descriptions. As problem-solving strategies also appear to reduce this type of role stress for high AC workers, NASP and VASP could also be supportive when making more available problem-solving in-services to Commonwealth psychologists who specifically perceive their job stresses to be based in role ambiguity-conflict.

#### Recommendations for Further Study

The following recommendations for further study are recommended:

1. Although the current research studied an individual state sample, questions of sample bias with respect to geographical distribution remain. Another study of Virginia psychologists should be completed using a more balanced regional representation.

2. No significant demographic or coping variables were found to mediate the substantial impact of role overload on perceived burnout. This general "overload" construct subsumes so much of a psychologist's role activities (e.g. caseload, number of schools served, size of service district) that it may not be possible for that psychologist to perceive anything except role overload.

Mediators to role overload-burnout relationship should be interacted with specific, hard data aspects of this job stressor. Age, social support, or problem solving may become significant mediators to variables such as numbers of teacher consultations, counseling sessions, or students tested.

### Final Recommendations

As mentioned previously in this chapter, results of this research have specific implications for Virginia psychologists involved in national and/or state professional organizations. Membership in NASP or VASP helped give role structure to practitioners with ambiguous or conflictual jobs. As problem-solving skills also clarified these unclear roles, the strategies could be taught through VASP or

Commonwealth in-service to any psychologist who experiences higher ambiguity or conflict at work.

In general, though, psychologists in Virginia experienced only moderate burnout across only one of the syndrome's dimensions. As a group, they experienced role stress only at levels comparable to their national counterparts. Why, then, continue to be concerned about this stress-burnout relationship? As study results defined, role overload was still the main predictor of burnout and was not significantly mediated by social support or other demographic and coping variables. External control, another prominent predictor of burnout, was not significantly mediated by the use of problem-solving strategies and was only moderately diminished by membership in professional groups.

As burnout is viewed as a process, many Virginia psychologists may still be locked within that process. As educators, they are also aware of the national school reform movement which challenges existing assumptions about what should go on in the classroom (Miller, 1991). Specific paradigm shifts are occurring as to special education vs. regular education, the role of business in public schools, or even whether to manage these schools from the traditional

top-down approach or from a micro, site-based level. These changes are gathering such momentum in schools as to appear inevitable.

As boundary agents, Virginia psychologists may decide to view these changes "from the sidelines" and continue their traditional role of primarily assessment with some side excursions into consultation and counseling as the job allows. Although the current study did not specifically address this issue, staying on the assessment treadmill may lead to ever higher job stress. Work overload, probably most likely in the form of assessment caseload, was the fundamental job stress which significantly predicted burnout and had no identified, substantial mediators. As psychologists continually evaluate and re-evaluate students, an "emerging non-system" (National School Psychology Inservice Training Network, 1984) has developed where these highly trained professionals are recognized largely as psychometrists while other skills remain underutilized.

Some professionals in Virginia may view this testing function as a form of job security, as federal law keeps their services necessary. Others undoubtedly see assessment time as highly creative, helpful, and productive for the students they serve. Indeed, these personal constructs of

role functions have probably contributed to the general lack of significant reported burnout levels in both the current study and prior research.

The question remains as to what happens when single Virginia school divisions decide that too many students have been tagged with special education labels, or federal money for this education becomes severely limited. At that juncture, it is quite likely that psychologists in schools will face very real questions about job security. Role overload stressors may combine with increased levels of ambiguity-conflict and feelings of being externally controlled. Role stress levels and burnout outcomes may then become very real concerns for the field.

This researcher advocates that school psychologists in Virginia recognize that systemic changes are on the educational horizon. In divisions with site-based management, psychologists need to join building-level management teams and help redefine their job roles as they provide an array of services for those teams. In jumping from the periphery to the bandwagon of school reform, they effect all students within their schools and collaterally promote a public relations component to their work.

In becoming "of the schools," Virginia psychologists will likely perceive less role stress and burnout, greater job security and satisfaction, and a sense of professional wellness which will allow these educators to continue their unique contributions to the welfare of the children they serve.

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## APPENDICES

APPENDIX A  
COVER LETTER

This letter was sent to 504 school psychologists in Virginia public schools. It was intended to make them aware of the survey and gain gain their support.

Dear Colleague:

I am a school psychologist in Fauquier County Schools working on my dissertation, and am writing you to ask your assistance. Working in public schools has led me to believe that the attitudes we develop about our jobs are necessarily related to the type of work we do. My primary goal in this study is to collect data on job attitudes (see enclosed forms) and describe how these attitudes relate to specific role activities (included in last year's annual report data). Note that the Virginia Department of Education will release copies of your annual data to me if and only if your anonymity is guaranteed. In carrying out the analytic plan, I will need your name only to initially merge the enclosed survey responses with state data. Once merged, the list of names linking annual data to survey responses will be destroyed.

If you agree to assist, I need you to sign and detach the informed consent form stated below. I also need you to: (1) Fill out the demographic form, Maslach Educator's Survey, Job Attitudes Survey, and OSI rating sheet (Sect. 3). The reusable OSI item booklet to be used with the answer sheet is either enclosed or will be received from your supervisor or colleague. (2) Give the OSI booklet to another psychologist to use, or (3) If you're the last psychologist to complete the three survey instruments and demographic data, please return your four forms and the OSI booklet in the manilla envelope originally enclosing these protocols. If you have any questions or concerns, please contact: Mark Vandiviere  
703-347-2314 (H)  
703-349-1456 (W)

Thank you very much for your assistance.

Sincerely,

Mark Vandiviere  
School Psychologist

-----

I have read the description of the study, and agree to:  
1.) allow collection of data on my job attitudes, and 2.)  
allow merging these responses to annual report data,  
guaranteeing anonymity in this process.

Name \_\_\_\_\_  
School Division \_\_\_\_\_

I am also interested in obtaining a copy of general  
study results.

Initial \_\_\_\_\_

**APPENDIX B**  
**JOB ATTITUDES SURVEY**

## JOB ATTITUDES SURVEY

Below are some statements regarding issues of concern to school psychologists. Please assign a rating to each item based on the following scale:

Strongly Agree = 5

Disagree = 2

Agree = 4

Strongly Disagree = 1

Neither Agree nor Disagree = 3

	<u>Rating</u>
1. My case load is excessive.	_____
2. I do not have enough time to do my work.	_____
3. There is a significant lack of support and appreciation for what I do.	_____
4. Demands from the school administration are excessive.	_____
5. My job role is not well-defined.	_____
6. My job expectations are unclear.	_____
7. Facilities for doing my job are inadequate.	_____
8. I sense pressure from teachers to do better in my job.	_____
9. I do not have enough time to follow-up on cases.	_____
10. I do not feel adequately prepared to do my job.	_____
11. I have little input into determining my responsibilities.	_____
12. I spend too much time traveling in my job.	_____
13. I have personality conflicts with other people I work with.	_____
14. I feel that the politics of my school system contribute to stress.	_____

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**APPENDIX C**  
**MASLACH BURNOUT INVENTORY**  
**ORDERING INFORMATION**

MANUAL

---

# ***Maslach Burnout Inventory***

***Second Edition***

**Christina Maslach**  
*University of California, Berkeley*

**Susan E. Jackson**  
*University of Michigan*

with a special supplement  
"Burnout in Education" by Richard L. Schwab  
*University of New Hampshire*



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Palo Alto, California 94306

APPENDIX D  
THE PERSONAL RESOURCES QUESTIONNAIRE  
OF THE OCCUPATIONAL STRESS INVENTORY -  
ORDERING INFORMATION



**MANUAL**  
**RESEARCH VERSION**

Samuel H. Osipow, Ph.D.  
The Ohio State University

Arnold R. Spokane, Ph.D.  
The University of Maryland, College Park

**PAR** Psychological  
Assessment  
Resources, Inc.  
P.O. Box 998 / Odessa, Florida 33556

**APPENDIX E**  
**INFORMATION SHEET**

## Information Sheet

Date: \_\_\_\_\_

Current position (check one):

<input type="checkbox"/> Administrator	<input type="checkbox"/> School psychologist
<input type="checkbox"/> College/University faculty	<input type="checkbox"/> Supervisor/school psychological services
<input type="checkbox"/> Consultant	<input type="checkbox"/> Other (specify)

Highest degree:  MA/MS  Ed.S  Ph.D.  Ed.D.

Gender: \_\_\_\_\_

Age Range:

 21-25  31-35  41-45  51-55 26-30  36-40  46-50  >55

Salary (round to the nearest thousand): \_\_\_\_\_

Completed years of experience: in current position \_\_\_\_\_  
 as a school psychologist \_\_\_\_\_  
 as a teacher \_\_\_\_\_

Population of service district:

<input type="checkbox"/> Less than 25,000	<input type="checkbox"/> 50,100-75,000	<input type="checkbox"/> >100,000
<input type="checkbox"/> 25,100 - 50,000	<input type="checkbox"/> 75,100-100,000	

Number of students in the district: \_\_\_\_\_

Length of contract (10,11, or 12 months): \_\_\_\_\_

Licensure:  Yes  No Type: \_\_\_\_\_

Professional Affiliation:  NASP  NEA  other  
 VASP  VEA

Number of individual schools served: \_\_\_\_\_

Total enrollment of schools served: \_\_\_\_\_

Psychologist/student ratio: \_\_\_\_\_

VITA

Marcus Stuart Vandiviere was born on August 2, 1953 in Tallahassee, Florida. He graduated from the University of North Carolina - Chapel Hill in 1975 with a Bachelor of Arts in Sociology. In 1979, he graduated from the University of Oregon - Eugene with a Masters of Science in School Psychology. In gaining further training as an educator, he received a Masters of Education in 1981 from The American University - Washington, D. C., with an emphasis in special education.

While working in the field as a teacher and school psychologist, he lived in various locales including Oregon, Alaska, and Washington, D. C., finally settling in Warrenton, Virginia. It was during this employment with Fauquier County School Division that he pursued coursework leading to receiving an Ed. D. He will be awarded the degree of Doctor of Education in December, 1991.

*Marcus Stuart Vandiviere*

Marcus Stuart Vandiviere