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ABSTRACT

Stress intrigues and plagues academic and practicing school administrators alike. This paper profiles McGrath's (1976) social-psychological stress process which consists of four stages, and Gmelch's (1988) similar four-stage cycle. A study investigated the relationship between Stage I and Stage IV of the four-stage stress cycle and the influence of an intervening variable, sex roles, on each of the two stages. Three research questions were investigated: (1) To what extent do administrative stress and burnout vary among levels of administration in education? (2) To what extent do administrative stress factors contribute to the dimensions of burnout? and (3) What is the association between sex-role orientation and administrative stress and burnout? Principals and superintendents (N=1,000) in Washington State were randomly selected and stratified to participate in this study. Each was sent the Administrative Work Inventory instrument. Seven hundred and forty administrators responded for a 74 percent return rate. Of the returned surveys, only 655 were fully completed. A variety of qualitative statistical methods were used. Results for each research question are given. Findings include a definite pattern between sex roles and administrator stress and burnout. The androgynous principals and superintendents perceive less stressful situations and burnout than other sex-role classifications. Statistical tables are appended. (Contains 29 references.) (RR)

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OCCUPATIONAL STRESS AND BURNOUT IN EDUCATIONAL ADMINISTRATION

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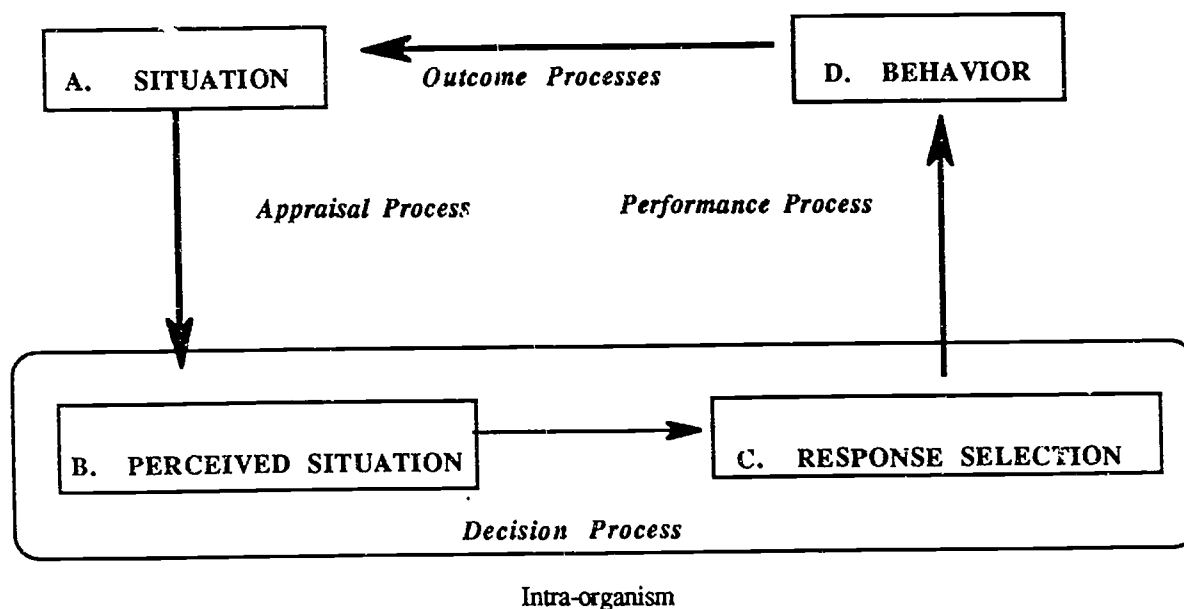
Introduction

Stress intrigues and plagues academic and practicing school administrators alike. Scholars and practitioners have written over 100,000 books, journals, and articles about the phenomena of stress. While early writing tended to be anecdotal in nature, based on limited empirical evidence, during the past ten years researchers have produced scholarly works about the problems of stress in educational administration. Initially, Cooper and Marshall (1976) researched the area of stress and managers' performance and Gmelch and Swent (1984) investigated the source of stress in educational administration. Other studies have clearly documented the link between stress and role conflict, job satisfaction, burnout, health and occupational performance.

The Conceptualization of Stress

Elementary and secondary principals throughout the nation are confronted with stress in their roles as administrators. Much research has been dedicated to understanding and resolving the stress problem. McGrath (1976) conceptualized a social psychological stress process which involves an interaction of person and environment as a four stage cycle (see figure 1). The stressors are perceived by the individual in stage one. In the second stage stressors are interpreted such that each person has choices on how to view the stressor. The choices are to meet the demand, to circumvent or remove themselves from the situation, to live with the constraints, or to use this demand as an opportunity for growth. In the third stage, the individual perceives the possible consequences and selects an appropriate response to deal with the stressor. Coping strategies may be used at this time as it may be more desirable than leaving the situation unaltered. The final stage is the behavior stemming from the previous three stages. The resulting behavior can lead to illnesses, insomnia, ulcers and a multitude of other problems.

Figure 1



A paradigm for analysis of the stress cycle: McGrath, (1973). Handbook of Industrial and Organizational Psychology, page 1356.

Additionally, McGrath has the four stages connected by linking processes. The appraisal process linking stage one and stage two is a subjective state. A person determines the intensity of stress or the threat and makes an appraisal whether it is accurate or not.

The decision process connects stage two and stage three, which involves choosing viable and available alternatives to respond to the undesirable characteristics of the situation. This process depends upon four factors: (a) the result of the appraisal process; (b) the individual's past experience; (c) the individual's current condition (e.g., fatigue); and (d) the availability of resources to deal with the response.

The third link performance process connects stage three and stage four. This results in a set of behaviors which can be appraised in terms of quantity, quality, and speed. Ability, task difficulty, and standards are all used to assess the level of performance.

Outcome process is the fourth process link which connects stage four back to stage one. Behavior of the person and its consequences for the situation are associated in this outcome process link. Outcome processes are contingent upon several factors which are not under control by the individual: (a) the performance level and timing of others who are connected with the situation and person (this includes teammates and opponents); and (b) the nature, strength, and certainty of the behavior-situation effect.

Gmelch (1988) views stress in a four stage cycle (Figure 2) similar to the one defined by McGrath. The initial stage is a set of demands placed on the individual. These demands, or stressors, can be separated into four sources of stress. The first source is role based stress which is defined as role ambiguity and role conflict. Beliefs, attitudes, interactions, and lack of autonomy of the individual within the organization promotes role based stress. The second source is task based stress which arises from work overload, task difficulty and the need for high achievement. Communication with faculty, coordination of activities, and the every day performance of the administrator leads to task based stress. The third source, boundary spanning stress, originates from external conditions, such as negotiations and gaining public support for school budgets. These external factors may change the present environmental setting and in the process, promote stress within the person. Conflict mediating stress, the fourth source, arises from the administrator handling conflicts within the school such as handling student discipline problems and resolving conflicts within the school.

Stage two consists of the perception or interpretation of the stressors by the individual. A study completed by Friedman and Rosenman (1974) identified "Type A" personality factor as contributing to incidences of heart disease and poor health. These individuals perceive demands as stressful and approach their work with intensity. Similar to McGrath's model, individuals need to appraise the situation. If they perceive they cannot respond successfully to demand(s) stress will ensue.

The third stage of the cycle presents choices to the individual. The person responds to the stressor if it is perceived to be harmful, threatening, or demanding. Coping strategies can now be

used if the individual believes that it can counteract the stressor in a positive manner. McGrath (1976) writes that the response made by the individual will not rest with one coping strategy but with understanding the contents and organization of his/her repertoire and valuable resources.

The final stage of the cycle is consequences. Stage four takes into account the long range effects of stress. The consequences can lead to headaches, ulcers, illnesses, or disability. Maslach and Jackson (1981) separated the consequences of stress into three stages of burnout: emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion occurs when individuals feel they are no longer able to give of themselves at a psychological level as emotional resources are depleted. The second level of burnout, depersonalization, occurs when an individual feels negative and has cynical attitudes about one's clients. This may lead to the dehumanized perception of other people and viewing clients as deserving of their troubles and problems (Ryan, 1971). The third aspect of the burnout syndrome is personal accomplishment. People with low personal accomplishment evaluate themselves negatively and become dissatisfied with their accomplishments on the job. Individuals having low feelings of personal accomplishments believe their actions no longer make a difference and give up trying.

Located between the four stages of the stress cycle are filters. Filters can influence and affect the interaction among the stages. These filters are composed of two major influences: (1) an individual's disposition may affect each stage of the stress cycle; and (2) personal background such as age, gender, and heredity factors can affect the individual's perceptions, responses and consequences.

Administrator Burnout

Burnout appears to be related to a response of interpersonal job actions and intense contact with people. Maslach (1986) claims that burnout is conceptualized as a continuous variable, ranging from low to moderate to high degrees of experienced feeling, not as a dichotomous variable either being present or absent. Specifically burnout, as defined above, consists of three

dimensions or three subscales: emotional exhaustion, depersonalization and personal accomplishment. Leiter and Maslach (1988) hypothesized that role conflict and contact with other employees influence the level of burnout which, in response, leads to influencing the level of commitment within the organization. Also, role conflict relates to emotional exhaustion. Once emotional exhaustion sets in an individual will attempt to cope with the situation. This will cause the person to focus on the situation and detach himself/herself from others and develop a depersonalized response. Once depersonalization occurs, individuals begin to feel less successful on the job and evaluate themselves less positively in terms of actual accomplishments.

Research findings confirm emotional exhaustion is related to role conflict and unpleasant supervisor contact. Emotional exhaustion and personal accomplishments are unrelated, although emotional exhaustion is also positively correlated with depersonalization.

Jackson, Schwab, and Schuler (1986) found that unmet job expectations do not lead to teacher burnout, however role conflict is positively related to emotional exhaustion. In addition, depersonalization was related to lack of support from the principal.

Sex Role Differences

Sandra Bem (1981) asserts that masculinity and femininity are complementary, not opposite domains of trait and behavior. An individual of either sex may be both masculine and feminine, depending on the given situation, a concept Bem identifies as androgyny (1974). The person classified as androgynous will perform sex-reversed activities, such that they can be dominant and tender, forceful and compassionate, and a leader and follower. In essence, androgynous individuals show greater behavior adaptability across situations (Bem, 1974; 1975).

Many researchers believe an androgynous person is more adaptable, flexible in their behavior patterns, clever in problem solving, and able to function in a reasonable manner in producing positive results. Sargent (1981) claims the androgynous person provides an open-ended path to growth, by encompassing the entire range of human behaviors. She further asserts that individuals in a neutral position (androgynous) have less stress and are more effective

managers. Powell and Butterfield (1976) also hypothesized that the more effective person is androgynous, therefore the more effective manager may be androgynous as well. On the one hand, masculine behaviors are aggressive, productive, and problem solving while feminine behaviors are expressive, alliance producing, accommodating, mediating, and nonverbal sensitive.

Arkkelin and Simmons (1985) studied the desirability (likability) of some masculine and feminine traits. In general, subjects responded favorably to feminine traits and less favorably to masculine traits. However, with respect to traits attributed to managers, they perceived masculine traits as more desirable than the feminine. A study done by Lester and Chu (1981) report that women in the administrative positions have acquired more masculine traits of assertiveness and self reliance in order to succeed. These women score higher on masculinity, self esteem, and social desirability and are usually considered androgynous or masculine.

Research Problem

The present study investigated the relationship between Stage I and Stage IV of the four stage stress cycle and the influence of an intervening variable, sex roles, on each of the two stages. Few studies have researched the relationship of perceived stress, burnout and sex roles. In fact, research on perceived stress and burnout has produced many unanswered questions for educational administrators. This study will address the following research questions:

1. To what extent does administrative stress and burnout vary among the levels of administration in education?
2. To what extent do the administrative stress factors contribute to the dimensions of burnout?
3. What is the association between sex-role orientation and administrative stress and burnout?

Methodology

The theoretical construct of the four stage stress cycle was used to guide this comprehensive study of educational administrators in public schools. The sample for this study was selected from the population of 1991-1992 Washington State principals and superintendents. An initial listing of these principals and superintendents were obtained from the office of the Superintendent of Public Instruction. One thousand subjects were randomly selected and stratified to participate in this study: 250 participants from each level of the principalship (elementary, middle school/junior high, and high school), and 250 superintendents.

Each subject received an Administrator Work Inventory (AWI) which consisted of three sections roughly corresponding to the four stages of the stress cycle. The first section assessed Stage I of the stress cycle which consisted of the Administrative Stress Index (ASI). Gmelch and Swent (1984) previously developed and validated this instrument as a measurement of perceived job-related stress of school administrators. The ASI consisted of 35 items factored into four dimensions: role based, task based, conflict mediating, and boundary spanning stress.

Section two of the survey corresponds to Stage IV of the stress cycle and consisted of the Maslach Burnout Inventory (MBI). The MBI which has been tested, validated, and normed for educators, asked 22 questions assessing three dimensions of burnout: emotional exhaustion, depersonalization, and personal accomplishment.

The third section addressed the intervening variables of the stress cycle. Each stage of the stress cycle is filtered by intervening variables which either accentuate or reduce the stress reaction of individuals. This section requested demographic data for participants such as age, gender, years of experience, level of administration, marital status, as well as an assessment of the respondents' sex role stereotype. The Bem Sex Role Inventory (BSRI) is a 30 item instrument used to classify an individual's independent dimensions of masculinity, femininity, androgyny, and undifferentiated (Bem, 1981).

On October 24th, 1991 the initial mailing of a cover letter and Administrators Work Inventory was sent to the participants of the study. One week later a postcard was sent reminding

the participants to complete their survey and thanking those who had already done so. During the first week of November 1991, a cover letter and replacement of the Administrators Work Inventory was mailed. The following week, phone calls were made to those participants who did not return their Administrators Work Inventory.

Seven hundred and forty administrators responded for a 74.0% return rate. Approximately 85 of the returned surveys were partially completed, therefore 655 surveys were fully completed and used for the data analysis. The responses by administrative position were as follows: superintendents (161), high school principals (177), middle school principals (149), and elementary principals (168).

The average subject was 47 years old and had 14 years of administrative experience. There were 155 females and 505 males who participated in the study. The median hours worked per week was 55. The subjects averaged three hours of exercise per week and attributed 65% of their total life stress to their work.

Results

Research Question 1.

To what extent does administrative stress and burnout vary among the levels of administration in education?

Analysis of variance was used to compare the four factors of stress and the three dimensions of burnout with the four levels of administrative position. The experimental design consisted of a one-way treatment structure (Administrative Position) in a completely randomized design structure (One-way Anova). If the F-test indicated a significant difference among treatment means, then Fishers least significant difference (LSD) were used to determine where the differences existed. Table 1 displays the results of the tests between the stress factors and levels of administration.

With respect to what extent stress factors varied by administrative position, no significant difference was found for the test of equal means for role based stress as classified by the levels of

administration [$F(3,646)=0.68, p<0.5$]. Significant difference was found with task based stress and levels of administration [$F(3,647)=7.99, p<.001$]. The LSD procedure disclosed that mean scores of the elementary school principals (2.60), middle school principals (2.49) and the high school principals (2.47) were significantly higher than the mean score of the superintendents (2.24). A significant difference was also found for the test of equal means for boundary spanning stress and the levels of administration [$F(3,646)=16.71, p<.001$]. The LSD procedure disclosed the mean scores of the elementary school principals (2.41), middle school principals (2.42) and the high school principals (2.35) were significantly lower than the mean scores of superintendents (2.88). Finally, the test of equal means for conflict mediating stress revealed significant difference by the levels of administration [$F(3,646)=12.19, p<.001$]. The LSD procedure disclosed the mean scores of elementary school principals (2.67), middle school principals (2.56) and the high school principals (2.55) were significantly higher from the mean scores of the superintendents (2.13).

The information on the dimensions of burnout and administrative position is displayed in Table 2. When the dimensions of burnout were tested for significant difference by level of administrative position, significant difference was found for the test of equal means for emotional exhaustion [$F(3,637)=7.61, p<.001$]. The LSD procedure disclosed the means at the elementary school principals (21.26), middle school principals (21.18) and the high school principals (20.91) were significantly higher from the mean score of superintendents (16.56). There was no significant difference found for the test of equal means for depersonalization by the levels of administration [$F(3,637)=2.27, p<0.5$]. With respect to personal accomplishment the test of equal means was found to be significant [$F(3,637)=2.61, p<.05$]. The LSD procedure disclosed that the mean score of elementary school principals (25.28) was significantly higher than the mean score of superintendents (23.94).

Research Question 2. To what extent do the administrative stress factors contribute to the dimensions of burnout?

A Pearson Product-Moment Correlation Coefficient was used to analyze the three levels of burnout (emotional exhaustion, depersonalization, and personal accomplishment) with the four sources of stress (role based stress, task based stress, boundary spanning stress, and conflict mediating stress). The correlation coefficient is a measure of the strength of association between two variables. It reflects how the scores or the variables are associated. The correlation coefficient is represented by a number between negative one and positive one. The stronger associations are those who are approaching the extremes of negative or positive one.

The results of the Pearson Product-Moment Correlation Coefficient analysis for stress factors and dimension of burnout are displayed in Table 3. The analysis of stress factors and dimensions of burnout for administrators (Table 3) reveals modest to high relationships between emotional exhaustion and the four stress factors. Task based stress was found to be the best indicator of emotional exhaustion with a correlation of .63 followed by conflict mediating stress, .41, role based stress, .40, and boundary spanning stress, .30.

There were moderate indicators of stress with the dimension of depersonalization. Role based stress and task based stress reported a .32 correlation while conflict mediating stress and boundary spanning stress reported correlations of .29 and .28, respectively.

The correlations with the factors of stress and personal accomplishment were very low even though some reported significance, ranging from role based, -.18, to conflict mediating, -.08.

The correlations between the dimensions of burnout and four factors of stress by administrative positions are reported in Tables 4-A through 4-D. Elementary principals (Table 4-A) indicated a high correlation between emotional exhaustion and task based stress, .66, while role based stress had a moderate correlation, .48, and conflict mediating and boundary spanning stress had lower correlations of .34 and .28, respectively. With regard to depersonalization, role based stress was the strongest, .44, followed by boundary spanning stress, .29, task based stress,

.27, and conflict mediating stress, .26. The correlations with the factors of stress and personal accomplishment were very low or not significant for the elementary principals.

The results of the middle school principals in Table 4-B produced moderate correlations between stress factors and emotional exhaustion. The best indicator for emotional exhaustion was task based stress with a .56 correlation, followed by role based stress, .43, boundary spanning stress, .43, and conflict mediating stress, .39. With regard to depersonalization, role based stress and conflict mediating stress recorded correlations of .37, and tasked based stress and boundary spanning stress correlations of .31 and .28, respectively. The correlations of the stress factors with personal accomplishment were very low or not significant for the middle school principals principals.

The correlations for stress factors and dimensions of burnout for high school principals are presented in Table 4-C. Task based stress had the highest correlation with emotional exhaustion, .70, followed by mediating stress, .39, role based stress, .30, and boundary spanning stress, .28. The correlations between stress factors and depersonalization were significant but moderate to low (task based stress .39, conflict mediating stress .29, role based stress .22, and boundary spanning stress, .20). There were no significant correlations between the stress factors and personal accomplishment.

The correlations for superintendents were moderate between stress factors and emotional exhaustion (Table 4-D). Task based stress and boundary spanning stress had correlations of .52 and conflict mediating stress and role based stress correlations were .42 and .39, respectively. The correlations for depersonalization were moderate to low. Boundary spanning stress had a correlation of .40, task based stress, .34, conflict mediating stress, .31, role based stress, .26. The correlations between the stress factors and personal accomplishment were low or not significant.

Research Question 3.

What is the association between sex-role orientation, administrative stress and burnout?

Each of the two response variables (burnout and stress by levels of sex role classification) were analyzed using analysis of variance. The experimental design consisted of a one-way treatment structure (sex role) in a completely randomized design structure (One-way Anova). If the F-test indicated a significant difference among treatment means, then Fishers least significant difference (LSD) were used to determine where the differences existed.

Table 5 reports the results of the analysis between stress factors and sex role classification. A significant difference was found for the test of equal means for role based stress as classified by the levels of Sex Role [$F(3,646)=3.11, p<.05$]. The Least Significant Difference (LSD) procedure found the mean of the feminine sex role classification (2.60) to be significantly higher than the means at the undifferentiated sex role classification (2.36) and the androgynous sex role classification (2.30). There was no difference found for the test of equal means for task based stress as determined by sex role classification [$F(3,647)=0.88, p<0.5$]. A significant difference was found for the test of equal means for boundary spanning stress as classified by the levels of sex role [$F(3,646)=4.62, p<.005$]. The LSD procedure found the mean score of the feminine sex role classification (2.76) and undifferentiated sex role classification (2.66) to be significantly higher from the mean of the androgynous sex role classification (2.41). There was no difference found for the test of equal means for conflict mediating stress as classified by the level of sex role [$F(3,646)=1.71, p<0.5$].

Table 6 presents the results of sex role classification and dimensions of burnout. A significant difference was found for the test of equal means for emotional exhaustion as classified by the levels of sex role [$F(3,637)=3.90, p<.01$]. The LSD procedure found the mean of feminine sex role classification (24.09) to be significantly higher from the means at the masculine sex role classification (20.60), undifferentiated sex role classification (20.58), and the androgynous sex role classification (18.89). A significance difference was found for the test of equal means for depersonalization as classified by the levels of Sex Role [$F(3,637)=13.99, p<.001$]. The LSD

procedure found the feminine sex role classification (7.29) to be significantly higher from the mean at the androgynous sex role classification (5.49). The LSD procedure found the masculine sex role classification (8.13) to be significantly higher from the mean at the androgynous sex role classification (5.49). There was no difference found for the test of equal means for personal accomplishment as classified by the levels of sex role [$F(3,637)=3.46, p<.05$].

Discussion and Conclusion

The Relationship of Stress and Burnout

Moderate to strong relationships were found between stress factors, Stage I of the stress cycle, and burnout dimensions, Stage IV, the consequences. The strongest association was between task based stress and emotional exhaustion for all levels of administration. Administrative work conditions are the best indicator of emotional exhaustion. Principals and superintendents may be susceptible to emotional exhaustion if they have high amount of work difficulty, excessive work load, and no support from colleagues and supervisors. In a study on predictors of burnout, Sarros (1988) reported that the major predictor of emotional exhaustion was the overall work stress by the school administrators. Neumann and Finaly-Neumann (1989) studied burnout with university faculty members and found that burnout results when work effort is excessively high and there are little support mechanisms to facilitate effective coping behaviors. Clearly there is a significant association between all the stress factors, especially task based stress, and the burnout dimensions of depersonalization and emotional exhaustion. Furthermore, investigations should be conducted to explore the mediating variables which serve to filter stress from contributing to burnout.

Levels of Administrator Stress

Elementary and secondary principals had a significantly higher mean scores in tasked based stress than did superintendents. The high task based stress of elementary principals could be due to the routine and/or boring tasks which they engage in during their work day (Savery and

Detiuk, 1986). Additionally, elementary principals are usually the only administrator which may induce higher levels of work overload, task difficulty, and the need for high achievement.

With student enrollments increasing and excessive paper work, building principals perceive themselves as having a heavy work load. Tanner and Atkins (1990) suggest that principals who understand and properly use time management techniques may perceive less task based stress. Principals could reduce their work load by having assistant principals to decrease their work load and therefore lowering perceived level of principals stress.

The building principals also experience higher levels of conflict mediating stress than do superintendents. Building administrators are front line people whose job it is to resolve problems within the schools: parent and student conflicts, student discipline problems, and work out differences among staff members. In contrast, superintendents are more politicians and rarely deal with the habitual building conflict.

As one might expect, boundary spanning stress was significantly higher for superintendents than building principals. Superintendents need to obtain resources for the school district, gather information on current trends, and make important decisions that may affect the organization and/or the community relations (Jemison, 1984). As superintendents interact with their external environment, boundary spanning stress seems to increase. The strategic decisions superintendents make have a profound affect on the district and the future affairs of the organization. Although building principals experience more task and conflict mediating stress, they do not have the same intensity of boundary spanning stressors as do superintendents.

In a previous study by Koch, Gmelch, Tung, and Swent (1982), the four factors of stress and administrative positions were analyzed. They reported that superintendents perceived less stress than principals in role based stress, task based stress, and conflict mediating stress. Boundary spanning stress was the only stress factor in which the superintendents reported a higher level of perceived stress than principals. The results of this study reconfirms the conclusion drawn in the 1982 study, with the exception of role based stress which did not show significant differences across levels of administration.

Burnout in Administration

As assessed by Maslach and Jackson (1986), each dimension of burnout is measured and normed by a separate scale ranging from low to moderate to high levels of burnout. The MBI scores are considered high if they are in the upper third of the normative distribution, average if in the middle third and low if in the lower third. Table 7 presents the normative MBI subscale scores for emotional exhaustion, depersonalization, and personal accomplishment.

When comparing the burnout scores from Table 2 with the norms in Table 7, the level of burnout was low for depersonalization and personal accomplishments for both superintendents and principals. The mean score for emotional exhaustion for the building principals and were in the moderate range (17-26) of the Maslach Burnout Inventory, and significantly lower for superintendents. Emotional exhaustion is caused by fatigue, frustration on the job, and being emotionally drained from the individual's work. Leiter and Maslach (1988) claim that role conflict and unpleasant supervisor contact may lead to emotional exhaustion, which confirms the results of significantly higher principal stress in conflict and emotional exhaustion than superintendents.

The building principals and superintendent's mean scores on personal accomplishment were all in the high burnout range (0-30) of the Maslach Burnout Inventory. These scores on personal accomplishment are caused by individuals who are dissatisfied with their accomplishments and successes of their job. Administrators who have low social support from their supervisors and colleagues may experience increased burnout in personal accomplishments.

Sex Roles

Sex roles function as a filter in the four stage stress cycle described by Gmelch (1984). Filters are composed of factors which influence the individual outcomes of the stress cycle. These factors influence the individual's responses and consequences of the stress cycle. Administrators who are classified as androgynous have significantly low meaner scores in four of the seven comparisons between stress and burnout variables and sex role classifications.

Androgynous administrators had significantly lower mean scores on role based stress, boundary spanning stress, emotional exhaustion, and depersonalization than most of the other

classifications. Conversely, androgynous administrators had higher, but not significant, mean score on personal accomplishments. The personal accomplishment scale has a reverse ranking order. The higher the score in personal accomplishments identifies a lower burnout level.

There is a definite pattern between sex roles and administrator stress and burnout. The androgynous principals and superintendents perceive less stressful situations and burnout than the other sex role classifications. Sargent (1981) writes that the androgynous individual is in command of basic facts, has balanced learning habits, quick thinking, creative, and possesses social skills. They also show higher self esteem (Spence, Helmreich, and Stapp, 1975) and have increased flexibility in many situations (Bem, 1975; Bem, Martyna, and Watson, 1976). Bem (1974, 1975) states that androgynous individuals show greater behavioral adaptability through many conditions. In essence, these principals and superintendents may be capable of being a situational leader (Irvine & Robinson, 1982). Hersey and Blanchard (1988) assert that an effective leader uses appropriate styles for a given situation. While this study does not assess administrators leadership effectiveness, the results of the sex role orientation with stress and burnout analysis do suggest that androgynous administrators perceive themselves as having less stress and burnout.

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Figure 2 Managerial Stress Cycle

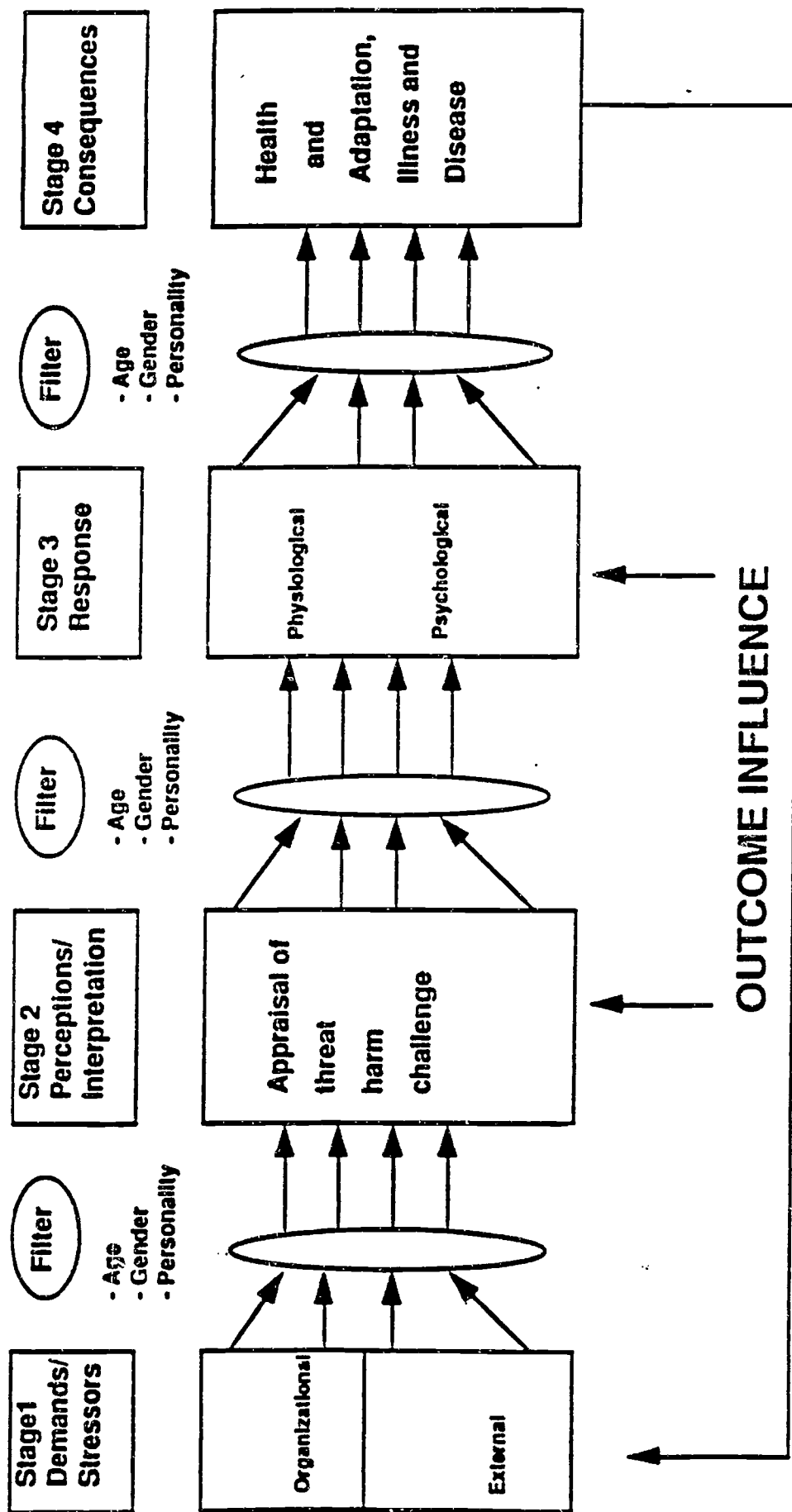


Table 1
Least Significant Difference Tests for Administrative Positions and Stress Factors

Stress Factors	Administrative Positions			
	Elementary School	Middle School	High School	Superintendents
Role Based Stress*	2.35	2.41	2.42	2.32
Task Based Stress	a 2.60	a 2.49	a 2.47	b 2.24
Boundary Spanning Stress	a 2.41	a 2.42	a 2.35	b 2.88
Conflict Mediating Stress	a 2.67	a 2.56	a 2.55	b 2.13

Note: Cells which do not share the same superscript are significantly different from one another at the .05 level (Least Significant Difference).

*There are no significant differences within Role Based Stress.

Table 2

Least Significant Difference Tests for Administrative Positions and Dimensions of Burnout

Burnout Dimensions	Administrative Positions			
	Elementary School	Middle School	High School	Superintendents
Emotional Exhaustion	21.26 ^a	21.18 ^a	20.91 ^a	16.56 ^b
Depersonalization*	6.01	6.19	7.26	6.62
Personal Accomplishment	25.28 ^a	24.71 ^a	24.30 ^a	23.94 ^b

Note: Cells which do not share the same superscript are significantly different from one another at the .05 level (Least Significant Difference).

*There are no significant differences within Depersonalization.

Table 3

Pearson Product-Moment Correlation Coefficient:
Dimensions of Burnout and Administrator Stress Factors

<u>Stress Factors</u>	<u>Dimension of Burnout</u>		
	Emotional Exhaustion	Depersonalization	Personal Accomplish.
Role Based Stress	.40***	.32***	-.18***
Task Based Stress	.63***	.32***	-.11**
Boundary Spanning Stress	.30***	.28***	-.17***
Conflict Mediating Stress	.41***	.29***	-.08

Note: *Significance at $p < 0.05$

**Significance at $p < 0.01$

***Significance at $p < 0.001$

Table 4-A

**Pearson Product-Moment Correlation Coefficient:
Dimensions of Burnout and Administrator Stress Factors
of Elementary Principals**

<u>Stress Factors</u>	<u>Dimension of Burnout</u>		
	Emotional Exhaustion	Depersonalization	Personal Accomplish.
Role Based Stress	.48***	.44***	-.18**
Task Based Stress	.66***	.27***	-.12
Boundary Spanning Stress	.28***	.29***	-.15
Conflict Mediating Stress	.34***	.26***	.01

Note: *Significance at $p < 0.05$

**Significance at $p < 0.01$

***Significance at $p < 0.001$

Table 4-B

Pearson Product-Moment Correlation Coefficient:
Dimensions of Burnout and Administrator Stress Factors
of Middle School Principals

<u>Stress Factors</u>	<u>Dimensions of Burnout</u>		
	Emotional Exhaustion	Depersonalization	Personal Accomplish.
Role Based Stress	.43 ***	.37 ***	-.25 **
Task Based Stress	.56 ***	.31 ***	-.16
Boundary Spanning Stress	.43 ***	.28 ***	-.11
Conflict Mediating Stress	.39 ***	.37 ***	-.19 **

Note: *Significance at $p < 0.05$

**Significance at $p < 0.01$

***Significance at $p < 0.001$

Table 4-C

**Pearson Product-Moment Correlation Coefficient:
Dimensions of Burnout and Administrator Stress Factors
of High School Principals**

	<u>Dimensions of Burnout</u>		
<u>Stress Factors</u>	Emotional Exhaustion	Depersonalization	Personal Accomplish.
Role Based Stress	.30**	.22***	.09
Task Based Stress	.70***	.39***	-.08
Boundary Spanning Stress	.28***	.20**	-.13
Conflict Mediating Stress	.39***	.29***	.13

Note: *Significance at $p < 0.05$

**Significance at $p < 0.01$

***Significance at $p < 0.001$

Table 4-D

**Pearson Product-Moment Correlation Coefficient:
Dimensions of Burnout and Administrator Stress Factors
of Superintendents**

Dimensions of Burnout

	Emotional Exhaustion	Depersonalization	Personal Accomplish.
<u>Stress Factors</u>			
Role Based Stress	.39***	.26***	-.22**
Task Based Stress	.52***	.34***	-.16*
Boundary Spanning Stress	.52***	.40***	-.24**
Conflict Mediating Stress	.42***	.31***	-.13

Note: *Significance at $p < 0.05$

**Significance at $p < 0.01$

***Significance at $p < 0.001$

Table 5
Least Significant Difference Tests for Sex Role Classification and Stress Factors

Stress Factors	Sex Role			
	Feminine	Masculine	Undifferentiated	Androgynous
Role Based Stress	a 2.60	ab 2.44	b 2.36	b 2.30
Task Based Stress*	2.60	2.44	2.42	2.44
Boundary Spanning Stress	a 2.76	ab 2.56	a 2.66	b 2.41
Conflict Mediating Stress*	2.66	2.49	2.60	2.42

Note: Cells which do not share the same superscript are significantly different from one another at the .05 level (Least Significant Difference).

*There are no significant differences within Task Based Stress and Conflict Mediating Stress.

Table 6
Least Significant Difference Tests for Sex Role and Dimensions of Burnout

Burnout Dimensions	Sex Role		
	Feminine	Masculine	Androgynous
Emotional Exhaustion	a 24.09	b 20.60	b 18.89
Depersonalization	ab 7.29	a 8.13	bc 5.49
Personal Accomplishment*	23.92	24.00	25.12

Note: Cells which do not share the same superscript are significantly different from one another at the .05 level (Least Significant Difference).

*There are no significant differences within Personal Accomplishment.

Table 7
Categorization: Educators Survey (MBI)

Normative Distribution

MBI Subscales	Low (lower third)	Average (middle third)	High (upper third)
Emotional Exhaustion	0-16	17-26	27 or over
Depersonalization	0-8	9-13	14 or over
Personal Accomplishment	37 or over	31-36	0-30

Maslach, C. & Jackson S. E. (1986). *Maslach Burnout Inventory - Manual*, Palo Alto, CA: Consulting Psychologist Press, Inc, page 3.

Table 8
Distribution of Burnout for Elementary Principals
Percentage of Elementary Principals Experiencing Burnout

MBI Subscales	Low (lower third)	Average (middle third)	High (upper third)
Emotional Exhaustion	36%	32%	32%
Depersonalization	76%	16%	8%
Personal Accomplishment	1%	2%	97%

Table 9
Distribution of Burnout for Middle School Principals
Percentage of Elementary Principals Experiencing Burnout

MBI Subscales	Low (lower third)	Average (middle third)	High (upper third)
Emotional Exhaustion	36%	31%	33%
Depersonalization	74%	20%	6%
Personal Accomplishment	3%	0.0%	97%

Table 10
Distribution of Burnout for High School Principals
Percentage of Elementary Principals Experiencing Burnout

MBI Subscales	Low (lower third)	Average (middle third)	High (upper third)
Emotional Exhaustion	38%	33%	29%
Depersonalization	67%	20%	13%
Personal Accomplishment	0.0%	1%	99%

Table 11
Distribution of Burnout for Superintendents
Percentage of Superintendents Experiencing Burnout

MBI Subscales	Low (lower third)	Average (middle third)	High (upper third)
Emotional Exhaustion	55%	29%	16%
Depersonalization	68%	21%	11%
Personal Accomplishment	0.0%	0.0%	100%