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ABSTRACT

Taxing situations that threaten the administrator's sense of self-efficacy meaningfully account for burnout in human-service professionals. This paper presents findings of a study that hypothesized that environmental or role stressors could be classified as task, organization, and relations stressors, each pertaining to a different domain of the professional's sense of self-efficacy. The second hypothesis was that each of these role stressors accounted for a different proportion in the variation of the professional's perceived burnout. A total of 821 elementary and secondary school principals in Israel completed a questionnaire designed to measure stressors, coping strategies, and burnout. Factor analysis was used to test the first hypothesis, and discriminant and multiple-regression analyses were used to test the second hypothesis. Results indicated that common environmental stressors could be categorized as "organization stressors" (pressures stemming from human-resource-management issues and resource dependence); "task stressors" (overload, role ambiguity and conflict, and administrative and technical assistance in role performance); and "relations stressors" (external relations with parents and supervisors). The findings also indicate that organization stressors were the best predicting variables distinguishing between high- and low-burnout principals. Human-resource management best predicted high levels of depersonalization and exhaustion, whereas resource dependency predicted sense of accomplishment. The paper argues that perceived threat against a principal's authority acts as a strain contributing to burnout. Therefore, new boundaries and expectations should be defined to bring about more realistic relations between school principals and incumbents. Training should focus on human-resource management and how to better utilize internal and external resources. Two figures and five tables are included. (Contains 16 references.) (LMI)

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High and Low-Burnout Principals:
What makes the difference?

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**High- and Low- Burnout Principals:
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ABSTRACT

This study is based on the assumption that taxing situations, threatening the professional's sense of self-efficacy (defined in terms of task, organization, and interrelations), meaningfully account for burnout in human service professionals. Based on this assumption it was hypothesized that environmental or role stressors could be classified as task, organization, and relations stressors, each pertaining to a different domain of the professional's sense of self-efficacy. It was further hypothesized that each of these role-stressors would account for a different proportion in the variation of the professional's perceived burnout. Perceived burnout was measured in this study by a scale, conceptually similar to the Maslach Burnout Inventory (MBI), but differently operationalized. 821 full-time elementary and secondary school principals completed an anonymous questionnaire designed to measure stressors, coping strategies, and burnout. Factor analysis was used to test the first hypothesis. Discriminant, and multiple regression analysis procedures were used to test the second hypothesis. Results indicated that common environmental stressors could indeed be categorized as "organization stressors" (pressures originating from problems involved in human resource management issues and resource dependence); "task stressors" (quantitative and qualitative overload, role ambiguity and conflict, administrative and technical assistance in role performance); and "relations stressors" (external relations with parents, supervisors and representatives of local and central administration). It was also found that organization stressors were the best predicting variables distinguishing between high- and low- burnout principals. Within the organization stressors domain, human resource management best predicted high levels of depersonalization and exhaustion, whereas resource dependency meaningfully predicted sense of accomplishment in school principals. Based on the findings of this study, it is argued that perceived threat against a principal's leadership cachet acts as a strain contributing to burnout. Therefore, new boundaries and expectations should be defined, to bring about more realistic relations between school principals and school incumbents. In addition, in the process of principal training for the job, emphasis should be laid on human resource management, and better utilization of internal and external resources.

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High- and Low- Burnout Principals: What Makes the Difference?

Although burnout has been studied since the early 1970's, there remains ongoing debate in the professional literature and among practitioners concerning its definition, etiology, and stages of development (Schaufeli, Maslach & Marek, 1993). There is, however, general agreement that burnout is a multi-stage process (Schwarzer & Kleiber, 1996). The first stage of this process is a stress-generating imbalance between resources and demands, and the second involves immediate emotional response to this imbalance, which is characterized by feelings of anxiety, tension, fatigue and exhaustion. The third stage consists of a number of changes in attitudes and behavior, such as a tendency to treat recipients of services in a detached and cynical, or mechanical fashion. In addition, the service provider develops negative feelings toward him- or her- self (Cherniss, 1980).

Key concepts involved in the process of burnout are disappointment, disillusionment, unfulfillment, unaccomplishment, or failure to meet professional and personal expectations. Farber (1991) argued that the critical component in understanding burnout is inconsequentiality--a sense on the part of professionals that their efforts to help others are ineffective, that the task is endless, and that the personal payoff for their work (in terms of accomplishment, recognition, advancement, or appreciation) have not been forthcoming. He also noted that this sense of inconsequentiality in burned-out professionals is similar to the notion of learned helplessness. Both concepts refer to a state in which individuals feel that their actions can no longer effect desired changes in the environment, and therefore, there is no point in persisting. Both concepts also posit cognitive and emotional consequences of the condition, namely, hopelessness associated with the sense of failure, depressed affect, lowered self-esteem, and self-blame. Friedman (1996) indicated that, as a result of environmental stress, a personal and professional sense of nonaccomplishment may develop in the individual and lead to exhaustion, depersonalization and the desire to relinquish the job or the profession. In workshops designed to alleviate burnout among teachers that this author has conducted, participants defined burnout as a feeling that "I cannot achieve the target that I am aiming for; it is connected to a sense of unfulfillment". Other teachers in those workshops simply said that for them burnout was nothing but "a professional failure", "a sense of making no progress", "failing to reach predetermined goals", or "not being able to get things on the move".

The question that may arise at this point is what are the general environmental and other work related factors that generate in the individual feelings of personal or professional inconsequentiality or failure? In response to this question Cherniss (1993) advocated a link between sense of professional self-efficacy and burnout. Self-efficacy was defined by Bandura (1989) as people's beliefs about their capabilities to exercise control over events that effect their lives. Research suggests strong links between self-efficacy and stress. People with stronger perceived self-efficacy experience less stress in threatening situations,

and perceive situations as less stressful when they believe they can cope successfully with difficulties (Bandura, 1989). Based on Gibson and Dembo's (1984) work, Cherniss (1993) suggested that it would be useful to broaden the definition of professional self-efficacy to embrace three different domains of professional role performance: Task, Interpersonal, and Organizational domains. The *Task* domain concerns the technical aspects the role; the *Interpersonal* domain relates to an individual's ability to work harmoniously with others, particularly recipients, co-workers and immediate supervisors; and the *Organizational* domain pertains to beliefs regarding one's ability to influence social and political forces within the organization. Hallsten (1993) argued that burnout is assumed to appear when the enactment of an active, self-definitional role is threatened or disrupted with no alternative role at hand. He also argued that an environment that is perceived as incongruous is a key contributor to burnout. For professionals, personal and organizational competencies and resources for attaining organizational goals and professional standards, as well as various forms of social support, are necessary to the professional to create a positive self-image. The more incongruous the organizational environment, the lower the expectations of high achievement and high esteem. A professional threatened by an incongruous organizational environment is more likely to burn out.

Cherniss (1993) asserted that since burnout is typically regarded as a reaction to adverse, stressful situations, this relationship between self-efficacy and stress suggests a link between self-efficacy and burnout as well. He concluded that self-efficacy theory helps explain why certain job characteristics are especially conducive to burnout. He reported that subjects in his studies who were most able to overcome early career stress, and who were most resistant to burnout, seemed to display particularly strong organizational self-efficacy.

The link between threats against professional role performance and burnout suggested by Cherniss (1993), and Hallsten (1993), may lead to a hypothesis according to which known environmental stressors are key contributing factors to burning out, due to their potential capacity to threaten one or more of the professional's sense of self-efficacy components (tasks, organizational, and relations). Therefore, pressures stemming from the professional's job or organizational environment may be categorized as task, organization, or relations stressors, depending on the specific self-efficacy domain they are potentially capable of threatening. For example, task qualitative or quantitative overload, role ambiguity or role conflict, as well as other inconsistencies within the job, may serve as "Task stressors" afflicting the professional's task domain of self-efficacy. Problems involved in human resource management (i.e., promoting motivation, inadequate cooperation among employees, poor employee performance), or problems involving resource dependence (i.e., the help professionals get from people within or outside the organization, or general social support) can be classified as "Organizational stressors", due to their potency of afflicting the professional's organization domain of self-efficacy. In the same vein, problems involved in internal or external interpersonal relations, can be classified as "Relations stressors". Hence, these role performance stressors can be considered as contributing factors to the burnout process of the professional worker. In order to cope with role performance stressors,

professionals use certain coping strategies. They may be either problem-focused or emotion-focused coping strategies (Holroyd & Lazarus, 1982). Problem-focused coping seeks to prevent stressful events by eliminating environmental demands that would otherwise lead the individual to mobilize for action. Emotion-focused coping on the other hand serves to moderate stress producing emotions that occur in response to difficulties. Role performance stressors, together with emotion- or problem focused coping strategies, may therefore account for a meaningful proportion of the variation in professional burnout.

Purposes

Three questions may be raised at this point: (1) are “Task”, “Organization” and “Relations” stressors distinguishable among commonly known role and environmental pressures? (2) does the combined effect of task, organization, and role stressors meaningfully account for variability in a professional’s perceived burnout? and (3) what is the unique contribution of each stressor to the prediction of burnout? The purpose of this study was to try and compile empirical evidence to answer these questions, where the school principal was the focal professional to be studied. The underlying assumptions, the definitions of variables and predictions in the present study were as follows:

1. A school principal faces everyday pressures, which threaten his or her professional self-efficacy. These pressures will be termed: “**Role Performance Stressors**”, or just “**Role Stressors**”. These stressors may be divided into three categories: *Task Stressors*, *Relations Stressors* and *Organization Stressors*, or simply: *Task*, *Relations*, and *Organization*;
2. The principal resorts either to problem- or emotion-focused coping strategies (or a combination), in an effort to cope with role stressors.
3. School principal burnout can be conceptualized and operationalized by three components: (a) **Exhaustion**--emotional, cognitive and physical fatigue; **Accomplishment**--self perceived success or failure in filling educational-managerial duties at school, and (c) **Depersonalization**--psychological detachment, impersonal relations, aloofness, and distancing from subordinates and students at school.
4. Together, role stressors and problem- or emotion focused coping strategies, comprise the factors which may explain a certain proportion in the variation of burnout and predict high- and low levels of burnout in school principals.
5. It was predicted that (a) organization stressors will be a salient factor in predicting burnout. The organization domain in the principal’s role is a pivotal function area, including such major duties as controlling and monitoring teachers’ activities, discipline, cooperation, and devotion to duty. Therefore, it has the highest stress-generating potential. (b) relations and task stressors, being an important part of the principal’s role, will be meaningful predictors of school principal burnout, but to a lesser degree in comparison with organization stressors. (c) coping strategies would have meaningful effect on principal burnout. In particular, emotion-focused strategies would effect Exhaustion, and problem-focused strategies would effect Accomplishment.

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METHOD

Subjects

Subjects in the present study were 821 full-time elementary and secondary school principals in Israel. Of these, 342 (42%) were male and 455 (55%) female (24 subjects failed to indicate their gender). The average age of the principals was 47 years ($SD = 7.14$). A total of 502 (61%) were elementary school principals (grades 1 through 6, or 1 through 8), and 276 (34%) were Junior- and High-school principals (43 principals failed to report their school classification). The average total years of experience (including teaching experience prior to being a school principal) was 23.85 years ($SD = 8.05$). Their average years of experience as managers was 10.2 years ($SD = 7.58$), and their average number of years in running their present school was 7.6 years ($SD = 6.40$).

Measures and Instruments

Three main measures were involved in this study: (a) role stressors (threats against the principal's sense of professional self-efficacy), (b) coping strategies, and (c) burnout. In addition, several background variables were included, i.e., gender, age, level of school (elementary or secondary). These measures will be described here in some detail.

1. Role stressors

Pressures originating from the principal's job or environment were measured by a 48-item scale. Items for this scale were compiled and formulated subsequent to a pilot study, in which 25 primary and secondary school principals were interviewed for several hours. The principals were asked to specify the stressful events and situations which they usually encounter at school. Interviews were content analyzed, and 50 statements were selected for the scale at random. In data processing, 2 items were deleted for low item-total correlations.

2. Coping strategies

School principal's use of coping patterns were measured by applying two scales: "Emotion Focused Coping Strategies" (abbreviated: Emotion Focus), and "Problem Focused Coping Strategies" (abbreviated: Problem Focus). The first scale comprised 5 items covering descriptions of controlled physical activities, relaxation exercises, leisurely out-of-school activities, trying to look on the bright side, and expressing belief that things are not really as bad as they seem. A high score on the Emotion Focus scale indicated a reported high occurrence of behaviors designed to ease stress. The second scale (Problem Focus) comprised 3 items describing attempts to avoid facing and dealing with problems whether directly or indirectly. Scale items described activities such as avoiding the identification of sources of stress at work (denial of their existence); direct handling of problems (in data processing, scores on this item were reversed), and identifying the stressor, but avoiding any action against it. A high score on the Problem Focus scale indicated a high occurrence of avoidance of facing problems, let alone solving them. Reliability estimates for these scales' scores, measured by Cronbach's alpha procedure were, $\alpha = .58$ for Emotion Focus, and $\alpha = .53$

for Problem Focus. No statistically significant or meaningful correlation was found between these two factors.

3. School principal burnout.

School principal burnout was measured in this study based on Friedman's conceptualization of educational managerial burnout (Friedman, 1995a), and his scale for measuring school principal burnout (Friedman, 1995b). Friedman (1995a) noted that although the school principal's role appeared highly complex, the components of burnout in principals may be presented in a two-dimensional space. This two dimensional conceptualization of school principal burnout establish four components: (a) **exhaustion**, (b) **self-dissatisfaction**, (c) **aloofness** and (d) **deprecation**. Friedman (1995b) indicated that school principal burnout could be operationalized as a three dimensional concept, involving: (a) **mental, cognitive and physical fatigue (exhaustion)** (b) **negative feelings toward self** (sense of unaccomplishment), and (c) **negative feelings toward subordinates and service recipients (depersonalization, distancing, or deprecation)**. Friedman's (1995a) conceptualization of school principal burnout is in fact parallel to the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), but its operationalization is different in that it is tailored to the specific professional role of the school principal. The measure of school principal burnout consisted in this study of three sub-scales (see Appendix A): (a) **Exhaustion**: Mental, cognitive and physical fatigue (i.e., "I feel tired of running the school, to the extent that I wish to quit"; "I feel emotionally worn out by running the school"; "I feel I have difficulty keeping up with the need to find solutions to school problems"); (b) **Depersonalization**: Negative feelings towards incumbents at school. It expresses deprecating teachers, administrative staff, students, and parents, and belittling the quality of their work. Examples of items in this scale are: "I feel that my relations with teachers and students are more impersonal than they used to be", "I feel I care less about teachers' problems," I am less supportive and appreciative of teachers at my school", and "I feel impatient with my school teachers and students". The items in this scale indicate a shift in the principal's previous high level of enthusiasm and involvement as a leader, to a distinct withdrawal or aloofness. Friedman (1995b) had originally labeled this scale as "*Aloofness*". However, in the light of responses from different scholars regarding the definition of burnout as aloofness, he changed the name to "*Depersonalization*". Items in this scale remained unchanged. (c) **Accomplishment**: This scale expresses the principal's sense of professional accomplishment, and proper functioning as the school leader. Examples of items in this scale are: "I find time to encourage teachers having difficulties, and to assist them in solving problems", "During a day's work I find the peace and quiet to think and plan future activities", and "I find enough time to meet students and deal with their problems." (see Appendix A).

Exhaustion was measured by a scale consisting of 9 items. Reliability estimate for this scale's scores in this study (measured by Cronbach's alpha procedure) was $\alpha=.90$. **Depersonalization** was measured by a 7-item scale. Reliability estimate for this scale's

scores was $\alpha=.90$. The **Accomplishment** scale comprised 7 items. Reliability estimate for this scale's scores was $\alpha=.84$. Reliability estimate for the whole scale's scores (23 items) was $\alpha=.91$. Correlations among factor scores were: $r=-.40$ between Exhaustion and Accomplishment; $r=.52$ between Exhaustion and Depersonalization; and $r=-.33$ between Accomplishment and Depersonalization. Item scores in each scale were processed so that a high score on Exhaustion and Depersonalization scales would indicate high levels of perceived burnout. Item scores on the Accomplishment scale were processed so that a high score on this scale would indicate a low level of perceived burnout. Item scores on the combined, unidimensional, scale, were processed so that a high score on the whole scale would indicate a high level of experienced burnout. The burnout scale scores were tested in this study for stability (cross-validation) and validity generalization (for details see "statistical analyses" in this section of the article). Factor structure coefficients (loadings) from half of the sample were compared against the other half of the same sample. Correlations between factor structure coefficients in the two subsamples were as follows: $r=.97$ for Exhaustion, $r=.66$ for Depersonalization, and $r=.84$ for Accomplishment. In validity generalization, factor structure coefficients known to exist in one population are sought in another population, which differ systematically from the first. For the burnout scale, comparisons between elementary and secondary male and female school principals were executed. The results were as follows: **Exhaustion**--elementary vs. secondary principals, $r=.83$, male vs. female, $r=.83$; **Depersonalization**--elementary vs. secondary $r=.87$, male vs. female $r=.85$; **Accomplishment**-- elementary vs. secondary $r=.69$, male vs. female $r=.78$. Hence, in this study scores in the burnout scale showed evidence for high reliability and generalizability.

The instrument in this study was an anonymous self-report questionnaire, named "School Principal's Feelings at Work". For each item in all scales, subjects were asked to describe the degree to which they had been exposed to the stated experiences during the past 2 to 3 months. The range of optional answers was from 1 (never) to 6 (always). The intermediate response options available were very rarely, rarely, often, and very often.

Statistical Analyses

- (1) Factor Analysis: Descriptive statistics, including means and variances, were computed for each item in the stressors scale, and a correlation matrix calculated. The correlation matrix of the scale's item-scores was subjected to factor analysis. Factors were extracted by employing principal component factoring with iterations, replacing the main diagonal element of the correlation matrix with communality estimates. The number of factors was predetermined (three factors), according to the underlying hypotheses of the study. Procedures for cross-validation and validation generalization were used. The sample was randomly split to form two subsamples. One sample ($n=410$), served as the primary development (PD) sample, and the other subsample

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(n=411), was used to cross-validate (CV) the PD sample findings. Other divisions of this sample were used for validity generalization purposes. Pearson product-moment correlation coefficient r was used to compare magnitude of structure coefficients (loadings).

- (2) Testing the overall predictability of a model. Three models were included. In the first model, *Exhaustion* served as the dependent variable, while *Accomplishment* and *Depersonalization* served as dependent variables in the second and third models, respectively. Stressors and coping strategies served as predictors, thus forming a full prediction model to predict the dependent variable (Y). The research hypothesis was that the 5 predictor variables would statistically significantly, and meaningfully, predict the criterion Y. The antithesis of the research hypothesis was that the set of predictor variables did not predict the criterion Y, implying that the regression weights (b or β) are equal to zero. The general F-test was applied to this research hypothesis, to test the full model, against one with zero predictability, the combined predictive power of the predictors being questioned.
- (3) Testing a single variable's contribution to predicting the criterion Y. In this study, one of the research questions was: How does a predictor effect the criterion within a set of other predictors? In each of the 3 prediction models there were 5 continuous predictors in the full model, along with the unit vector (b_0), and an estimate of the prediction error (e). In order to determine the "value-added benefit" of each predictor variable in predicting the criterion (Y), a restriction was implied to the full model. The restriction implied that the prediction weight (b) of the specific predictor variable to be tested, is zero. Two models were then computed and compared. These were: a full model (in which all predictor variables are assumed to have non-zero prediction capability), and a restricted model (in which one predictor variable was assumed to have zero prediction capability). The general F-test was used to test these two models (McNeil, Newman & Kelly, 1996). In the case of one restriction, the F-test is:

$$F(1, N - p) = \frac{R_f^2 - R_r^2}{(1 - R_f^2) / (N - p - 1)}$$

where: $R_f^2 = R^2$ for full model: $R_r^2 = R^2$ for restricted model, N=number of subjects, P=number of predictor variables in the full model. In the following tables, R_f^2 , R_r^2 and F will be reported to provide the comparison between the full and restricted models.

Comparing full and restricted models, in order to determine how a single predictor affects the criterion within a set of other predictors, was preferred in this study over other statistical techniques, such as stepwise regression analysis, for several methodological reasons. McNeil, Newman and Kelly (1996) noted that several problems are inherent in the stepwise regression procedure: (a) the multitude of tests of significance involved; (b) different answers from different stepwise computer programs; (c) different answers depending on the

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probability values chosen for inclusion and exclusion; and (d) different answers for forward and backward stepwise analyses. Thompson (1995), indicated that stepwise methods did not correctly identify the best variable set of a given size, and that stepwise methods tend to capitalize on sampling error and thus tend to yield results that are not replicable. He also noted that computer packages use incorrect degrees of freedom in their computations.

RESULTS

Results will be reported here in the following order. First, results of factor analytic structure of the school principal role stressors (PRS) including data regarding stability and generalizability of the 3-factor structure will be presented. Second, correlations among the PRS variables and among burnout variables will be reported and analyzed. Third, overall predictability of the PRS variables and coping strategies, followed by testing the contribution of one variable at a time, will be reported. Finally, discriminant analysis will be reported to present the best high- and low principal burnout levels predictors amongst the independent variables.

1. Principal role stressors (PRS): Structure

Results reported here were generated from the PD sample (n=410). Based on the underlying assumptions of this study three factors were to be extracted. The resultant factors were used to identify the subscales of the School Principal Role Stressors (PRS) scale. These factors have been labeled Factor I: Organization, Factor II: Task, and Factor III Relations (see Table 1, and Figures 1 and 1a).

Figures 1 and 1a Table 1 about here

In Table 1 it is shown that Factor I (Organization) included items covering pressures originating from the organizational aspect of the principal's role. This 16-item scale comprises two semantic parts: (a) human resource management (teacher and student functioning, cooperation and motivation, discipline and subordination: Items 71, 30, 32, 66, 89, 23, 50, 86, 11, 10), and (b) resource dependence (the help the principal gets from outside sources, i.e., the supervisor, parents and representatives of community and local authorities: (Items 37, 27, 43, 59). Factor II (Task) included items covering the technical aspects of the principal's role as a manager or leader. This 19-item factor contained the following semantic areas: (a) quantitative overload--working long hours, time pressure, heavy workload (Items 61, 47, 55, 75, 58, 25), (b) qualitative overload--where the job's requirements outstrip the employee's skills (Items 54, 60, 15, 46), (c) role ambiguity (Item 63), (d) role conflict (Items 41, 22, 12) and (e) administrative and technical workers daily functioning (Items 18, 29, 26, 42, 9). Factor III: (Relations) included 12 items covering the major aspects of the school principal's external relations, i.e., relations with parents, members of the PTA, and representatives of the local authority or community. Both oblique and orthogonal rotations were used. With delta value set at zero, the oblique (oblimin) rotation yielded factors that

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were moderately correlated: $r=.33$ between factors 1 (Organization) and 2 (Task); $r=-.44$ between factors 2 (Task) and 3 (Relations); and $r=-.32$ between factors 2 (Task) and 3 (Relations). A comparison between the rotated solutions (oblique and orthogonal) indicated that the same variables correlated highly with their respective factors, with very similar magnitude. The orthogonal rotation, where the values in the loading matrix are correlations between variables and factors, was chosen to represent the data in the final solutions, for simplicity and ease of interpretation. The three factors extracted accounted for 27% of the scale's scores common variance. Percentages of explained variance for each factor extracted were: 18.7%, 4.6%, and 3.8% for factors 1,2 and 3 respectively). Reliability estimates for the scale's scores, measured by Cronbach's coefficient alpha were: Organization (16 items), $\alpha=.83$; Task (19 items), $\alpha=.85$; Relations (12 items), $\alpha=.84$.

2. Principal role stressors (PRS): Stability and generalizability

In order to test the PRS structure scores' stability and validity, procedures for cross-validation and validity generalization were used. In cross-validation, factor structure coefficients based on factor results of one sample are tested against another sample, where both have been drawn from the same population (Mosier, 1951). The sample in this study was randomly split into halves, to form two subsamples: Primary development (PD) (n=410), and cross-validation (CV) (n=411) samples. The PD sample was used to generate results of factor structure scores, and the CV sample was used to replicate the findings, to determine the degree of stability of the results. Item scores of the school principal role stressors were drawn from the PD sample, and thus factor structure coefficients computed from the CV sample did not manifest chance effects such as spurious inflation. A comparison indicated that correlations between factor structure coefficients in the two subsamples were as follows: $r=.84$ for Organization, $r=.72$ for Task, and $r=.95$ for Relations.

In validity generalization, factor structure coefficients known to exist in one population are sought in another population, which differ systematically from the first in a number of characteristics. The aim of applying such comparisons is to determine whether validity can be generalized to different populations (Mosier, 1951). In this study, two different comparisons were made: (a) between elementary (n=502) and secondary (n=276) school principals, and between male (n=342) and female (n=455) principals. Correlations among factor structure coefficients of the subscales were as follows: For comparison between elementary and secondary principals: Organization, $r=.70$; Task, $r=.53$; Relations, $r=.80$. For comparison between male and female principals: Organization, $r=.81$; Task $r=.64$; and Relations, $r=.91$.

3. Intercorrelations among predictor variables and among criterion variables

Table 2 here

In Table 2 Pearson correlations among all variables studied in this research are shown. Correlations among predictor variables (stressors) indicate that they were moderately intercorrelated. *Relations* shared some 25% of common variance with *Task* ($r=.51$) and *Organization* ($r=.50$). *Organization* shared 21% of common variance with *Task* ($r=.46$). On the other hand, Problem-focused and Emotion-focused coping strategies were found to be almost completely independent of one another, and fairly independent of the other predictor variables. Correlations among criterion variables (burnout) indicated that *Depersonalization* shared 42% of common variance with *Exhaustion* ($r=.65$) whereas *Accomplishment* shared only 17% and 20% of common variance with *Depersonalization* ($r=-.41$), and *Exhaustion* ($r=-.45$) (see Table 2).

Correlations among predictor and criterion variables indicate the salience of *Organization*. It shared 29% of common variance with *Depersonalization* ($r=.54$), 28% of common variance with *Accomplishment* ($r=-.53$), and 21% of common variance with *Exhaustion* ($r=.46$) (see Table 2).

The prediction of burnout by role stressors: Overall predictability and unique contribution of single variables

Prediction of school principal burnout by role stressors was estimated using multiple regression analyses, employing full and restricted models (for details, see “statistical analyses”, in the Method section).

Table 3 comes here

Table 3 presents data regarding the predictability value of school principal role stressors and coping strategies, and the “added value” (the “importance” of each predictor variable) for predicting each of the three components of school principal burnout. Table 3 shows that school principal role stressors and coping strategies best predicted *Accomplishment* ($R=.61$, $R^2=.37$) and *Depersonalization* ($R=.60$, $R^2=.36$), followed by *Exhaustion* ($R=.55$, $R^2=.30$). As far as the “added value” of each predictor variable, it is notable that (see Table 3):

(1) *Accomplishment*. *Organization* had the highest contribution to predicting *Accomplishment* [$F(1,782) = 112.50$, $p<.01$], followed by *Task* [$F(1,782) = 75.00$, $p<.01$], by *Emotion focused strategies* [$F(1,782) = 25.00$, $p<.01$], and by *Relations* [$F(1,782) = 12.50$, $p<.01$].

(2) *Depersonalization*. *Organization* had the highest contribution to predicting *Depersonalization* [$F(1,784) = 187.50$, $p<.01$]. *Relations* and Problem-Focused coping took almost equal second place in their ability to predict *Depersonalization* [$F(1,784) = 37.50$, and 25.00 respectively $p<.01$]. *Task* had zero predictability value in the presence of the other variables in the prediction equation.

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(3) *Exhaustion. Organization* had the highest contribution to predicting *Exhaustion* [$F(1,786) = 66.67, p < .01$], followed by, with almost equal contribution, by *Task, Relations* and *Emotion-Focused* strategies.

From Table 3 it is also noted that, as far as coping strategies are concerned, in the presence of the other variables in the equation, *Problem-focused coping strategies* (the tendency to avoid problems at school) had zero predictability value in *Accomplishment* and *Exhaustion*, whereas a low (but statistically significant) predictability value [$\beta = .12, p < .01; F(1,782) = 25.00, p < .01$] in predicting *Depersonalization*. *Emotion-focused coping strategies* (using relaxation and other easing activities) had low (but statistically significant) predictability value in predicting *Accomplishment* [$\beta = .13, p < .01; F(1,782) = 25.00, p < .01$], *Exhaustion* [$\beta = -.13, p < .01; F(1,782) = 22.22, p < .01$], and *Depersonalization* [$\beta = -.05, p < .01; F(1,782) = 12.50, p < .01$].

From Table 3 the salience of the *Organization* component in the school principal role stressor set in predicting school principal's perceived burnout is quite apparent. Therefore, the following further data processing steps were taken. First, the *Organization* subscale was factor analyzed, to determine its internal structure, and then these "internal" factors served as predictor variables in a multiple regression equation, in which *Exhaustion*, *Depersonalization*, and *Accomplishment* served as dependent variable. Results indicated that in *Organization*, two subscales were distinguishable. They were: (a) *Human Resource Management (HRM)* (dealing with unmotivated teachers and students, uncooperative teachers, and matters of discipline and insubordination), and (b) *Resource Dependence (RD)* (financial resources and supervisory support). Regression analyses indicated that *Depersonalization* was statistically significantly and meaningfully predicted by HRM ($\beta = .55, t = 17.50, p < .01$), (beta for RD was .06, $t = 2.06, p > .01$). *Exhaustion* was predicted meaningfully by HRM ($\beta = .40, t = 11.90, p < .01$) (beta for RD was .15, $t = 4.34, p < .01$). *Accomplishment* was equally predicted by HRM ($\beta = -.31, t = -.967, p < .01$) and RD ($\beta = -.33, t = -10.24, p < .01$). In sum, among *Organization* components, HRM was the major predictor of *Depersonalization* and *Exhaustion*, and had an equal weight in predicting *Accomplishment*. RD was a meaningful predictor of *Accomplishment*.

4. Stressors and coping strategies classifying principals into high- and low-burnout levels

The research hypothesis in this section of the study was that the predictor variables (stressors and coping strategies) would predict school principal groups with particularly high and particularly low reported levels of burnout. Using discriminant analysis statistical techniques, linear combinations of the predictor variables were formed to serve as the basis for organizing cases into each one of the distinct classified groups. This approach comprised two stages. In the first, high and low levels of burnout were defined. For this purpose, the total score on the combined burnout scale (including

Exhaustion, Depersonalization and Accomplishment) was calculated. Scores were then transformed into standardized z scores: Scores of $z \geq 1.0$ were defined as 'High Burnout' and scores of $z \leq -1.0$ were defined as 'Low Burnout'. In the second stage of the analysis, discriminant functions were calculated. Wilks' Lambda (u statistic) and correlations (pooled within groups) between each predictor variable and the discriminant function score were calculated. Wilks' Lambda F-test value and the pooled within-groups correlation coefficients served as the criteria for assessing the "importance" of each predictor variable in assigning principals to one of the two extreme groups: High and Low. Tables 4 and 5 present data regarding the discriminant values of the predictor variables: For the total sample, elementary, secondary, male and female principals (Table 4), and for principals grouped by years of experience in principalship (Table 5).

Table 4 Here

From Table 4 we note that for the total sample of principals, *Organization* was found as the best predictor variable for classifying principals as having high or low levels of reported burnout [$F(1,239) = 260.80, p < .01; r = .80$]. This is followed by *Relations* [$F(1,239) = 159.90, p < .01; r = .62$], and *Task* [$F(1,239) = 158.70, p < .01; r = .62$]. (see Table 4).

A comparison of elementary and secondary school principals (see Table 4) indicates that for elementary school principals, *Organization* was the best discriminant predictor variable [$F(1,143) = 147.30, p < .01; r = .76$; and $F(1,143) = 135.40, p < .01; r = .92$], for elementary and secondary school principals respectively, The only difference between elementary and secondary principals is that, following *Organization*, for secondary school principals *Task* served as number two, whereas for elementary school principals, *Task* and *Relations* were found to be equally important.

A comparison of male and female principals showed no outstanding differences in the rank order of predictor value of variables in discriminating between male and female principals. This finding means that male and female principals are almost equally affected by all stressors and coping strategies, as far as burnout is concerned. The only notable finding in this context is that *Task* had a better discriminance value for female principals [$F(1,142) = 92.21, r = .65$], than male principals [$F(1,96) = 57.06, r = .54$] (see Table 4).

Table 5 Here

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A comparison of principals with a different number of years of experience in principalship showed that *Organization* was the best predicting variable, distinguishing between high- and low burnout principals (see Table 5).

POINTS FOR DISCUSSION

1. Role stressors meaningfully affect the principal's sense of accomplishment. Accomplishment is thought to be the onset of the burnout process.
2. The importance of *Organization* in predicting leader burnout. In "organization", the principal's ability to function as a leader is constantly probed. Therefore, organization stressors make the principal's professional self-efficacy most vulnerable.
3. Within *Organization*--the salience of *Human Resource Management* in predicting *Depersonalization* and *Exhaustion*; and the role of *Resource Dependency* in predicting *Accomplishment*.
4. The place of *problem-focused* and *emotion-focused* coping strategies;
 - . How to make perceived leadership less vulnerable--the key to reducing school principal (or managerial) burnout.

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Table 1
Factor Structure Coefficients for Principal Role Stressors (PRS) Scale
Primary Development Sample (n=410)

Item No.	Item Content	Factor I	Factor II	Factor III
Organization				
71	I think that my teachers do not do their job properly	.71	.13	.17
30	Many teachers at my school behave in an undisciplined manner, are not punctual, skip meetings etc	.60	.01	.18
32	Many of the teachers do not cooperate with their colleagues at school	.59	.02	.22
66	In contrast with the past, I find no satisfaction in the way my teachers perform at school	.59	.15	.19
89	I would like to have much better teachers than the ones working in my school at the moment	.52	.20	.16
23	I have difficulty finding suitable teachers from among the school staff with which to form an executive team	.52	.25	.15
50	Teachers respond willingly to any requests I make for extra classroom activities even when they are full of work*	.50	.01	.14
36	I would like to arrange for the transfer of a number of teachers with whom I find it difficult to work	.48	.16	.29
86	I think that students in my school do not work and study as hard as they should	.42	.16	.01
11	I face a lot of resistance from teachers and team members whenever I try to introduce new teaching methods	.41	.01	.19
10	When important meetings with teachers are scheduled something comes up and the meetings have to be cancelled	.40	.15	.10
37	Parents are involved and active in my school to the degree most suitable to me*	.39	.11	-.05

* = Scores were recoded

Item No.	Item Content	Factor I	Factor II	Factor III
27	Parents assist the teachers and me by their own initiative, even when they have not been asked to do so*	.34	.08	-.15
43	My school has sufficient resources to enable it to challenge and stimulate gifted students*	.30	.07	.01
14	I spend too much time solving disputes and problems between teachers	.30	.09	.19
59	I get support from my supervisor when I need it*	.25	.03	.03
Task				
47	I can't find the time to perform all the duties required of me as a school principal	.25	.55	.15
58	When I get home at the end of the day, all I want to do is rest, even though there are lots of other things for me to do	.15	.50	.06
46	Extra tasks and responsibilities are imposed on me without appropriate budget and resources	-.03	.47	.23
22	I have to supervise the cleaning work at school which interferes with the work I need to do	-.03	.47	.25
75	Teachers present me with problems which they themselves could solve	.40	.47	.18
54	I am expected to deal with more crises and problems than I can handle in a day's work	.38	.46	.14
15	Besides having to carry out my duties as principal, I have to perform many other professional roles such as being a counselor or a social worker	.09	.45	.01
61	I am expected to participate in meetings and discussions which take up a lot of my time	.07	.44	.09

* = Scores were recoded

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Item No.	Item Content	Factor I	Factor II	Factor III
25	I have to stay on and work at school for hours long after everyone else has gone home	.05	.44	.12
18	I have to "chase" the maintenance man or the house-keeper to get them to do things	.05	.41	.19
55	I receive a lot of circulars and papers from authorities and other external bodies which I am expected to deal with in addition to my own paperwork	.14	.41	.08
26	The school secretary refers any small problem to me, including those I would rather she dealt with herself	.15	.41	.15
29	The school administration team (secretary, maintenance man, cleaners) show great initiative at work*	.11	.38	.12
60	The responsibility for my students' achievement and teachers' success worries me a lot	.19	.34	.06
12	New immigrant students are referred to my school without adequate facilities for dealing with their specific problems	-.03	.33	.18
9	I delegate duties and tasks to teachers and team members and in the end have to do things myself	.34	.32	.17
63	A lot of poorly explained Ministry of Education directives land on my desk	.16	.27	.24
41	Teachers and staff members at my school treat me as if I am there for their own benefit exclusively	.18	.26	.16
42	Setting up appointments and solving problems between counselors and teachers at school is done smoothly and does not require my intervention*	.08	.21	-.03

* = Scores were recoded

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Item No.	Item Content	Factor I	Factor II	Factor III
Relations				
40	Parents make demands of the teachers and me as if they were our 'bosses'	.15	.16	.78
35	Parents approach me with unreasonable demands	.18	.18	.66
53	Parents treat me and my staff rudely	.22	.01	.59
16	Parents complain to me about activities that we do, or that they feel we ought to be doing, at school	.13	.08	.57
44	Parents committees or individual parents really neutralize me and restrict my ability to carry out my duties properly	.12	.09	.57
20	Members of the Parents-Teachers-Association takes up too much of my time and get in the way of my work	.10	.11	.55
84	Parents come to me with complaints about matters or problems that they themselves are responsible for	.06	.23	.48
31	I invest time and effort debating issues with parents with no significant results	.24	.28	.47
45	The head of the local authority education department interferes with my work in an onerous fashion	.15	.08	.37
51	I am unsuccessful in raising money from parents to fund activities which they, themselves, have asked to be introduced into the school	.14	.22	.32
49	I put too much effort and energy in building good relationships with parents	-.07	.28	.31
38	I would like to devote much more time than I actually do in relations with the local community center, the local senior citizens club etc.	-.02	.13	.22

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Table 2
Correlations Among Professional Self-Efficacy Stressors, Coping
Strategies and Burnout Dimensions

	<i>M</i>	<i>SD</i>	Task 1	Relat. 2	Org. 3	Prob. Foc. 4	Emo. Foc. 5	Exhau. 6	Deper. 7
1. Task	3.61	.60	-						
2. Relations	2.45	.65	.51	-					
3. Organization	2.92	.55	.46	.50	-				
4. Prob. Foc. Coping	2.55	.58	.02	.03	.03	-			
5. Emot. Foc. Coping	2.88	.81	.02	.06	-.04	.01	-		
6. Exhaustion	2.69	.85	.41	.40	.46	.03	-.09	-	
7. Depersonalization	2.23	.66	.30	.42	.54	.13	-.02	.65	-
8. Accomplishment	3.82	.69	-.48	-.37	-.53	.03	.13	-.45	-.41

Table 3

**Regression Coefficients of Accomplishment, Depersonalization, Exhaustion on Professional Self-Efficacy Stressors and Coping Strategies,
Full and Restricted Models**

	R	R ²	b	β	part corr.	t	p	F (1,782)
Accomplishment								
Full model	.61	.37	-	-	-	-	-	-
Organization	.53	.28	-.44	-.35	-.29	-10.39	.00	112.50
Task	.56	.31	-.32	-.28	-.23	-8.12	.00	75.0
Emot. Foc. Coping	.59	.35	.11	.13	.13	4.49	.00	25.00
Relations	.60	.36	-.08	-.07	-.06	-2.06	.04	12.5
Prob. Foc. Coping	.61	.37	.04	.04	.04	1.28	.20	0.00
Depersonalization								
Full model	.60	.36	-	-	-	-	-	-
Organization	.46	.21	.55	.46	.38	13.32	.00	187.50
Relations	.57	.33	.20	.20	.16	5.53	.00	37.50
Prob. Foc. Coping	.58	.34	.14	.12	.12	4.30	.00	25.00
Emot. Foc. Coping	.59	.35	-.04	-.05	-.05	-1.7	.08	12.50
Task	.60	.36	-.01	-.01	-.01	-.34	.73	0.00
Exhaustion								
Full model	.55	.30	-	-	-	-	-	-
Organization	.48	.24	.45	.29	.24	8.18	.00	66.67
Task	.52	.27	.27	.19	.15	5.19	.00	33.33
Relations	.53	.28	.21	.17	.13	4.44	.00	22.22
Emot. Foc. Coping	.53	.28	-.13	-.13	-.12	-4.17	.00	22.22
Prob. Foc. Coping	.55	.30	.04	.03	.03	0.86	.39	0.00

notes: 1. R and R² values for predictor variables are R's for restricted models, in each variable's prediction weight is equal to zero.

2. F values are for comparison between full and restricted models.

Table 4
High and Low-Burnout Principals Discriminant Function Coefficients of Professional Self-Efficacy Stressors.
Elementary, Secondary, Male, and Female Principals

Discriminant Variables	Total Sample (n=239)		Elementary School Principals (n=143)		Secondary School Principals (n=78)		Male Principals (n=93)		Female Principals (n=139)	
	F (1,247)	Corr.	F (1,147)	Corr.	F (1,85)	Corr.	F (1,96)	Corr.	F (1,142)	Corr.
Organization	260.80	.80	147.30	.76	135.40	.92	133.60	.82	133.80	.78
Task	158.70	.62	102.10	.63	61.01	.62	57.06	.54	92.21	.65
Relations	159.90	.62	112.90	.67	35.16	.47	71.99	.60	99.87	.68
Emot. Foc. Coping	11.73	-.17	6.96	-.16	5.30*	-.18	5.59*	-.17	5.85*	-.16
Prob. Foc. Coping.	0.00*	.00*	0.31*	-.03	0.35*	.05	1.02*	.07	0.44*	-.04

notes: * P>.01

F = Wilks' Lambda F-Test

Corr. = Pooled Within-Groups Correlation Between Discriminant Variables and Canonical Discriminant Function.

Table 5
High and Low-Burnout Principals Discriminant Function Coefficients of
Professional Self-Efficacy Stressors:
Principals by Years of Experience in Principalship

Discriminant Variables	Low experience (n= 84)		Medium Experience (n=102)		High Experience (n=46)	
	F (1,94)	Corr.	F (1,101)	Corr.	F (1,43)	Corr.
Organization	95.92	.84	126.90	.78	47.17	.81
Task	45.03	.58	67.88	.57	33.12	.68
Relations	52.59	.63	77.41	.61	18.83	.51
Emot. Foc.	6.49*	-.22	8.67	-.20	0.23*	-.06
Prob. Foc.	0.75*	.07	0.12*	-.02	0.02*	.02

notes: * = $P > .01$

F = Wilks' Lambda F-Test

Corr. = Pooled Within-Groups Correlation Between Discriminant Variables and Canonical Discriminant Function.

APPENDIX A

Factor Structure coefficients for Principal Burnout (SPB) Scale Items

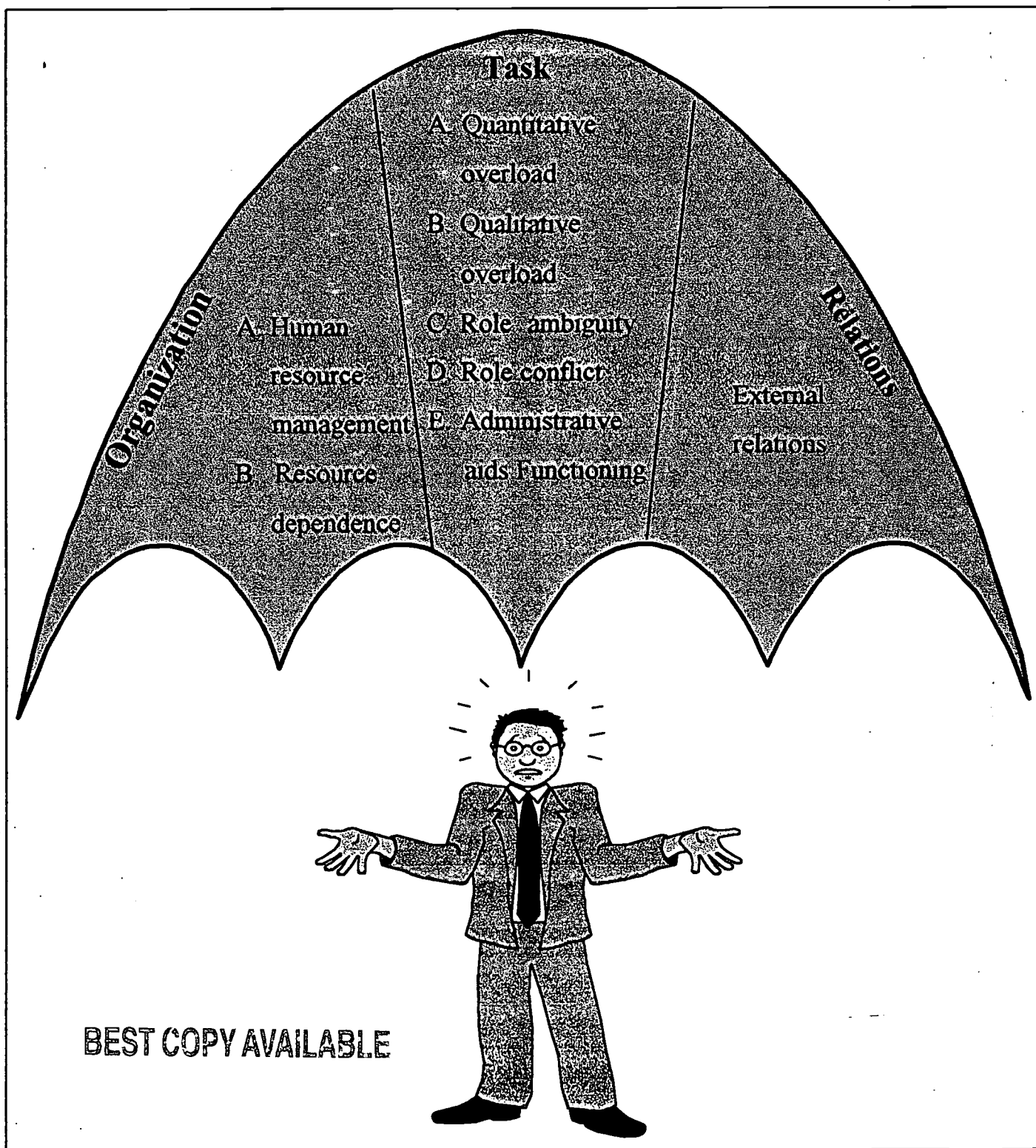
Item No.	Item Content	Factor 1	Factor 2	Factor 3
EXHAUSTION				
67	I feel tired of running the school, to the extent that I wish to quit	.83	.25	-.10
69	I feel burned out by my work as school principal	.83	.28	-.15
72	I think I am no longer interested in running a school	.70	.39	-.01
88	I feel emotionally worn out by running the school	.70	.30	-.24
81	I feel that I would like to take a break from the problems that are brought to me	.57	.38	-.27
64	I feel that my work as a school principal gives me a lot of pleasure*	.53	.19	-.27
77	I feel I have difficulty keeping up with the need to find solutions to school problems	.51	.42	-.30
79	I feel full of energy and readiness to promote school matters*	.44	.29	-.11
83	I feel quite fresh at the end of a day's work at school*	.38	.00	-.38
DEPERSONALIZATION				
78	In contrast with the past, I feel I care less about teachers' problems	.28	.67	-.12
85	I feel that compared with the past, I am less supportive and appreciative of teachers at my school	.16	.67	-.16
90	I feel impatient with my school's teachers and students	.29	.62	-.17

* Scores were recoded

Item No.	Item Content	Factor 1	Factor 2	Factor 3
82	I feel that my relationships with teachers and students are more impersonal than they used to be	.19	.57	-.24
76	I think that the ideas and suggestions raised by teachers and members of staff are not as good or as interesting as they used to be	.23	.57	-.13
70	In contrast to the past, I tend to ignore things in the school that I don't agree with	.40	.50	-.18
65	I think that I am not as open to suggestions or criticism from teachers as I used to be	.19	.47	-.07
ACCOMPLISHMENT				
13	I have to assist teachers with their problems and cannot find enough time to do so*	-.16	-.24	.57
56	During a day's work I find time to encourage teachers having difficulties, and to assist them in solving their problems	-.07	-.26	.53
52	During a day's work I find the peace and quiet to think and plan future activities	-.20	.01	.52
33	Teachers refer difficult students to me and I am hard pressed to find enough time to deal with them*	-.17	-.18	.49
21	I find enough time to meet students and deal with their problems	-.01	-.11	.49
39	I have enough time to talk to the school counselor or psychologist also about matters of importance and interest to me personally	-.10	.00	.47
17	I sit in on classes as I see fit and necessary	-.05	-.17	.30

* Scores were recoded

FIGURE 1
The School Principal Role Stressors Set



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FIGURE 1a
The School Principal Role Stressors Set

Organization

a. Human Resource Management

- 1. Unmotivated teachers & students*
- 2. Uncooperative teachers*
- 3. Discipline & insubordination*

B. Resource Dependence

- 1. Financial Resources*
- 2. Social and supervisory support*



Task

A. Quantitative Overload

- 1. Long working hours*
- 2. Time pressure*
- 3. Heavy workload*

B. Qualitative Overload

C. Role Ambiguity

D. Role Conflict

E. Administrative Aids Functioning (help given to the principal for task performance)

External Relations

A. With Parents and PTA

B. With Authorities

C. With Supervisors

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