This paper presents a meta analysis of the literature on burnout among special education administrators. Discussion of a theoretical framework reviews models of burnout especially Maslach's theoretical model, stages of burnout, and constructs of burnout. The meta analysis of 46 studies of special educator burnout with sufficient data for further quantitative analysis addressed 23 research questions. Of these, five studies focused on special education directors. Analysis found that as role ambiguity increased, so did the frequency and intensity of emotional exhaustion. Also, as role ambiguity increased, the frequency of depersonalization also increased. The small relationships found, however, explained only a small amount of the variance found among special education administrators. Implications are drawn for research (such as inclusion of administrators in studies of burnout) and for practitioners (such as development of coping strategies for dealing with role ambiguity). (Contains approximately 140 references.) (DB)
Burnout Among Special Education Administrators

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What is so “special” about special education? In a recent report to Congress, the United States Department of Education (1997) cites that 26,000 persons teaching special education are not certified to do so, and almost 3,700 special education jobs are actually vacant. Boe, Cook, Kaufman, and Danielson (1996) cite five evidenced reasons for the shortage of special education teachers: (1) a high attrition rate of these teachers, (2) a large number of teacher transfers from special education to general education fields, (3) an increase in the number of special education jobs needed in the past (these researchers found that within eight years, the number of new special education jobs increased 19%, over 7,000 jobs per year), (4) a continued increase of new special education jobs in the future, and (5) a decline in graduates from preparatory programs in special education. These authors go on to say that the special educator shortage is now a problem of both “quality and quantity” that has reached “pervasive and critical dimensions” (p. 2). Furthermore, the number of school-aged children is continuing to rise, as is the number of students who are eligible for special education (Cooley & Yovanoff, 1996; Frank & McKenzie, 1993). Also compounding the problem is the extremely high attrition rate for special educators, which in some parts of the United States has reached up to 30%. Burnout and its accompanying characteristics have been recognized as correlates to this high attrition rate (Cooley & Yovanoff, 1996).

For a wide variety of reasons, special educators often experience burnout. In fact, Singer (1993) found that special educators typically stay with their chosen profession for only six years. In one study, educators who had left the field of special education actually cited “became burned out” as the second most common reason for leaving their
jobs; being "burned out" was second only to the generic response of "needed a change" (Billingsley & Cross, 1992, p. 502).

THEORETICAL FRAMEWORK

Many scholars have attempted to define the construct of burnout. Originating a mere twenty-five years ago with Freudenberger's (1977) research in the helping professions, burnout remains a relatively new area of study in the social sciences (Banks & Necco, 1990; Stout, 1987). Freudenberger (1977) first coined the term "burnout," using it to describe persons who appear to be depressed with their jobs. Burnout can be identified through the appearance of fatigue, persistent colds, headaches, insomnia, and exhaustion; these signs are caused by over-exertion of a person's energy, strength, or resources. Behavioral indicators of burnout such as anger, irritation, cynicism, paranoia or drug use may also be apparent (Stout, 1987). Blase broadens this definition of burnout so that it includes any adverse reaction that occurs from stress in the workplace (as cited in Dedrick & Raschke, 1990).

Most authors tend to agree that burnout refers to an extreme form of job stress (Cherniss, 1988; Dedrick & Raschke, 1990; Maslach, 1982; Wisniewski & Gargiulo, 1997); in fact, some researchers go so far as to make these two terms, job stress and burnout, synonymous (Male & May, 1997). Beer and Beer (1996) state that burnout results from chronic stress in the workplace. Christina Maslach (1982), perhaps the most widely accepted authority on burnout, describes this condition as "a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems" (p. 3); therefore, in Maslach's opinion, burnout can be defined as "one type of stress" (p. 3).
While often defining burnout by its characteristics, most researchers do agree that burnout can be attributed to some type or combination of types of external or environmental causes (Morgan & Krehbiel, 1985). Other researchers, however, explain burnout not as a form of stress, but rather as the "chronic inability to cope with stress" (Greer & Greer, 1992, p. 169). In a study by Torelli and Gmelch (1992), stress was found to be the most common predictor of burnout. Burnout is also frequently defined by the appearance of its symptoms: feeling irritable, tired, angry, and/or frustrated (Gold, 1989); becoming detached, cynical, or apathetic are also symptoms often used in defining burnout (Guglielmi & Tatrow, 1998). Hudson and Meagher (1983) cite Freudenberger's description of burnout as "a state of fatigue or frustration brought about by devotion to a cause, way of life, or relationship that failed to produce the expected reward" (p. 47). These authors further explain that burnout usually affects persons who are highly motivated, hard-working, and idealistic in the workplace. The failure of this idealism brings about the feelings most often associated with burnout.

Obviously, then, there is no clear or singular definition for the construct of burnout. For this reason, in subsequent chapters of this inquiry the term burnout will denote the author-identified construct of burnout as declared in the population of primary studies addressing burnout among special educators. Distinct constructs of burnout, such as emotional exhaustion, depersonalization, and personal accomplishment (as described by the Maslach Burnout Inventory, detailed in the upcoming section of this inquiry) will be stated as they appear in this population of primary studies.
Theoretical Models of Burnout

*Maslach’s Model of Burnout.* By far the most widely used and accepted theoretical model of burnout is the model created by Christina Maslach. Measured according to the Maslach Burnout Inventory, this model focuses on three constructs: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, 1982). The inventory contains twenty-two statements about the workplace/job, and participants are to score each statement twice, once for intensity and once for frequency. *Intensity* scales range from one, indicating very mild or barely noticeable, to seven, very strong or major. *Frequency* scales range from one, few times a year, to six, every day. Burnout is indicated by higher scores on the depersonalization and emotional exhaustion scales and by lower scores on the personal accomplishment scale. It is important to note, however, that Maslach’s theoretical model of burnout does not indicate the absolute presence or absence of burnout; rather, it describes a person’s place on a burnout continuum, such as “more or less” burned out (Crane & Iwanicki, 1986).

Zabel and Zabel (1983) go on to explain that Maslach’s burnout model demonstrates burnout not as an either-or state of being, but rather as a matter of degree. Freed (1994) expounds further upon this idea by describing burnout as a continuous variable (rather than dichotomous), measured in terms of low, moderate, or high rates of experience.

*Other Models of Burnout.* Few researchers other than Maslach have developed such thorough models of burnout and its characteristics. Those researchers who have, however, tend to develop models that describe burnout as a series of stages (Harmon-Vaught, 1985). For example, Edelwich and Brodsky (1980) developed a four stage
model of burnout. This model examines burnout as it evolves from enthusiasm (stage one) to stagnation (stage two), frustration (stage three), and apathy (stage four).

According to Jones and Emanuel (1981), the stages of burnout follow a more chemical analogy. These authors describe burnout through the following stages: heating up (stage one), boiling (stage two), and explosion (stage three).

Similarly, Spaniol (1979) uses the terminology of physical burns to describe burnout. First degree burnout involves brief periods of being tired, grouchy, anxious, and ambivalent. Second degree burnout involves longer bouts of these same feelings. With third degree burnout, physical manifestations began to occur, including headaches, ulcers, and back aches.

Yet another stage approach to burnout can be found in the work of Veninga and Spradley (1981). In this model, stage one is called the “honeymoon,” in which one is enthusiastic and excited about a job. The second stage is called the “fuel shortage,” in which going to work requires a conscious effort and dissatisfaction with one’s job begins to occur. Although physical manifestations of stress begin to occur during stage two, stage three finds these physical symptoms becoming chronic conditions. During the next stage, the “crisis” stage, physical symptoms become perilous, and psychological symptoms such as cynicism, apprehension, and disappointment reach extreme proportions. The final stage of this model results in final sense of defeat, a total loss of control, and the termination of one’s position at work.

A final stage model of burnout is attributed to Baldwin (as cited in Hudson & Meagher, 1983, p. 51). Baldwin’s model contains five stages of burnout:

Stage I: Intimate Involvement (new job, overinvolvement)
Stage II: Exhaustion/Questioning (physical and emotional fatigue plus "grass is greener" thoughts)

Stage III: Balancing Act (conscious/unconscious choices causing adequate or inadequate coping mechanisms to develop)

Stage IV: Withdrawal/Disappointment (coping devices fail thus affecting work and home)

Stage V: Terminal Cynicism (self-preservation ["me"] over self-management)

Constructs of Burnout. Because Maslach's theoretical model of burnout is by far the most accepted explanation of its kind, the three constructs found in this model are also the most widely used burnout constructs. These constructs include emotional exhaustion, depersonalization, and personal accomplishment. The three subscales of the Maslach Burnout Inventory are quite distinct. Emotional exhaustion refers to cases of burnout in which a person feels emotionally (or psychologically) tired or worn out, with little or no energy. Depersonalization describes a condition in which a person feels insignificant or meaningless. His or her reactions to other persons are less caring and more harsh than before. Reduced personal accomplishment is used to explain a person's feelings of inadequacy, futility, or dissatisfaction in the workplace (Crane & Iwanicki, 1986; Gmelch & Gates, 1998). All three subscales are measured according to frequency and intensity, both of which have been found to vary according to the subject's age, gender, marital status, and level of education (Crane & Iwanicki, 1986). Interestingly enough, older teachers who have been in the classroom for a longer period of time
demonstrate lower levels of burnout than younger, less experienced teachers (Banks & Necco, 1990; Crane & Iwanicki, 1986; Greer & Greer, 1992).

A great deal of literature has been written on special education and burnout, each study with its own unique findings and viewpoints. After a thorough search of the literature, only one study was found that attempted to synthesize this large amount of important information. This meta-analysis (Jarvis, 1988) is over ten years old, meaning that a great deal of new research has been made available since its publication. A current meta-analysis of studies concerning burnout and special educators is greatly needed. In addition, the previous synthesis included only research on teachers of special education; no consideration was given to other certified personnel within the special education field. A thorough investigation of the literature involving these three roles (teachers, assessment personnel, administrators) is long overdue. The need for this type of study can best be explained by Hoy (1978) when he says, “There is little in the way of application, improving or building on others’ work. We rarely base new work on existing work” (p. 5). Campbell (1979) concurs with this opinion; he believes that in education there has been “little cumulative building of knowledge in the field” (p. 10). Thus, a plethora of information on special educator burnout exists, but no analysis has been made of it in order to further the current understanding of this topic. By utilizing the meta-analytic techniques of Hunter and Schmidt (1990), this problem was addressed.

INTENT OF THE INQUIRY

Meta-analysis of topics in special education is also being encouraged by other researchers. Guskin (1984) states that “meta-analysis is to be considered a powerful tool that has already begun to help us reduce the confusion of a growing and heterogeneous
Because inquiry in special education often involves small groups or even individuals, meta-analysis is the tool of choice, for it allows one to synthesize the findings of numerous studies, no matter how small they may be. Kavale (1984) also encourages the use of meta-analysis with special education topics: "the variability in the findings of special education research creates a gap between past and future research, a gap that can be bridged by the intermediate step of synthesizing findings into a comprehensive whole" (p. 62). Indeed, this inquiry synthesizes the vast research on job burnout among special educators in order to offer a more complete and thorough understanding of this important topic.

Objectives and Research Questions

Using the techniques for meta-analysis described by Hunter and Schmidt (1990), six main objectives were accomplished in this study. First, all primary studies from the databases that addressed burnout among special educators and provided sufficient information for meta-analysis were identified; hereafter this group of primary studies will be referred to as the primary study synthesis population. Second, the research hypotheses for each of these primary studies were specified, along with the target population, burnout constructs, and predictor constructs used in the development of these hypotheses. Third, the statistical hypotheses and inferential rules needed for synthesizing the data found in selected research hypothesis were specified. Fourth, population effect sizes for each research hypothesis were estimated. Fifth, moderator variables relative to each research hypothesis were identified. Sixth, the stability of each population effect size was explored.
Taken collectively and addressed sequentially, 23 research questions guided both the theoretical and empirical aspects of this study. Answers to these questions synthesized what was learned from the research on burnout among special educators, as well as provided new data necessary to develop recommendations for improving future research on job burnout.

**DESIGN OF THE INQUIRY**

The design of this inquiry, modeled after Thompson’s (1997) study on job satisfaction, is a 14-stage model, outlined in Table 1. (See Edmonson, 2000, for an elaborated description of the model.) At relevant stages of the inquiry, a group of behavioral science researchers specifically trained in meta-analysis independently classified and coded primary studies and research hypotheses, examined archived data, and estimated effect sizes to ensure reliability of the methods used in this study. Discrepancies were resolved with the assistance of additional trained researchers.

**Population and Classification Construction**

In Stages 1 through 3, primary studies that addressed burnout among special educators and presented empirical data suitable for quantitative synthesis were identified, and a classification system for each variable examined in this study was developed. This purpose required that classification systems be developed for coding burnout constructs, predictor constructs, and effect size indicators; procedures for meta-analysis were used for classifying effect size indicators (Cohen, 1988; Glass, McCaw, & Smith, 1981; Johnson, 1989). Initially, an exhaustive search of eight major databases using the search terms “burnout” and “special education” was used to identify primary studies relevant to this topic. The following databases were included in the search: ERIC, Social Sciences
Abstracts, Article First, Wilson, Psyc Info, Dissertation Abstracts International, Education Abstracts, and *Educational Administration Abstracts*.

**TABLE 1**

**Design of the Inquiry**

<table>
<thead>
<tr>
<th>Stage 1: Developing the theoretical framework</th>
<th>Stage 2: Specifying the population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 3: Designing the classification system</td>
<td>Stage 4: Designing the coding system</td>
</tr>
<tr>
<td>Stage 5: Coding the data</td>
<td>Stage 6: Archiving the coded data</td>
</tr>
<tr>
<td>Stage 7: Building research hypotheses inventory</td>
<td>Stage 8: Identifying the effect sizes</td>
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<td></td>
<td>Stage 9: Describing the primary studies</td>
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<td></td>
<td>Stage 10: Describing the effect sizes</td>
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<td></td>
<td>Stage 11: Estimating the parameters</td>
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<td></td>
<td>Stage 12: Elaborating the moderator variables</td>
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<td></td>
<td>Stage 13: Assessing stability of findings</td>
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<tr>
<td></td>
<td>Stage 14: Specifying the recommendations</td>
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</tbody>
</table>

**Data Coding**

Stages 4 through 6 were developed in order to reliably transfer data from the synthesis population of primary studies into a SPSS data file in order to facilitate further analysis. These stages were accomplished through (1) the construction of a numerical coding system developed from the classification systems found in Stage 3, (2) the coding of data onto specially designed coding forms, and (3) archiving the coded data into a computer data file. Again, reliability for these procedures was achieved through the independent analysis of behavioral researchers specially trained in meta-analysis.

**Research Hypothesis and Effect Size Identification**

Stages 7 and 8 involved the construction of the research hypothesis inventory and the identification of the effect size estimates. The research hypothesis inventory was
constructed from the stated or implied research hypotheses found in the synthesis population of primary studies. Primary studies in this inquiry contained anywhere from three to 216 stated or implied research hypotheses.

After an inventory of research hypotheses was constructed, effect size estimates were identified or derived. Estimates given in the form of Pearson product-moment correlation coefficients were recorded as is; estimates given in other statistical formats were converted into Pearson coefficients. Each effect size met specific criteria suitable for quantitative synthesis (Hedges & Becker, 1986); thus, each estimate (1) was independent; (2) represented the same construct; and (3) estimated the same statistical parameter.

**Descriptive Analysis**

Descriptive analyses were conducted in Stages 9 and 10. In Stage 9, the descriptive analysis of the synthesis population of primary studies took the form of univariate distributions; in Stage 10, the descriptive analysis of effect sizes produced univariate distributions of two sets of effect size estimates: (1) the entire set of effect size estimates (as described by this article) and (2) subsets of effect size estimates corresponding to research hypotheses that yielded at least eight effect sizes (as described in Edmonson, 2000). For the administrators study, only seven effect sizes were required.

**Meta-Analysis**

Stage 11 required that an independent meta-analysis be conducted for each research hypothesis that yielded at least eight effect sizes (or seven as indicated above) and the same unit of statistical analysis; all meta-analyses were conducted according to Hunter and Schmidt's (1990) guidelines. In these meta-analyses, effect sizes were
weighted according to their corresponding sample sizes. Five estimates were then measured: (1) the effect size estimate of the population correlation; (2) the estimate of the variance of the observed correlations across studies; (3) the estimate of the variance of observed correlations due to sampling error; (4) the estimate of the variance of the population correlation; and (5) the estimate of the standard deviation of the population correlation. From these estimates, conclusions could be drawn concerning the relationships between burnout constructs and predictor constructs.

Moderator variable analysis was conducted in Stage 12, again using the guidelines laid out by Hunter and Schmidt (1990). These authors point out that moderator variables become apparent when there is true variation, not due to sampling error, in correlations across studies. When true variation does exist, Hunter and Schmidt suggest grouping the correlations into subsets and repeating the procedures for meta-analysis. Moderator variables will then evidence themselves by a mean effect size (effect size estimate of the population correlation) that varies noticeably between the subsets and a lower standard deviation of population correlations for the subsets than for the combined data.

Stage 13 involved a time series analysis for each research hypothesis used in the meta-analyses. The time series analysis required that the effect sizes be disaggregated and ordered according to their year of publication. These findings are not described in this inquiry.

FINDINGS

Three sections are used to present the findings of this inquiry, which limited the original study of all special educators described previously to the study of only special education administrators. Section one elaborates the descriptive analysis of primary
studies, section two details the descriptive analysis of statistical tests, and section three explains findings from the independent meta-analyses.

Descriptive Analysis of Primary Studies

**Historical Overview.** Of the 470 primary studies initially identified by the search procedure, 230 were classified as actually addressing special educator burnout, as declared by the author; of these 230 studies, 123 presented quantitative findings. Of the 123 primary studies addressing burnout among special educators and containing empirical findings, only 46 studies contained sufficient data for further quantitative synthesis, meaning that only 37% (46 of 123) of studies on special educator burnout contained Pearson product-moment correlations or statistical data sufficient to derive such correlations. Thus, 63% of the available primary studies contained insufficient data to be included in this inquiry. This exhaustive search will be broken down to include only administrators in the following section on target populations.

**Target Population.** In the initial comprehensive research conducted for this study, special education teachers represented the target population in 37 of the 46 (80.4%) primary studies. Special education directors (i.e. administrators) were the target population in five primary studies (10.9%). Public K-12 schools represented the largest target population subgroup in 24 of the 46 primary study synthesis population. All 46 primary studies from the synthesis population employed the individual as the unit of analysis.

**Research Hypotheses.** In the 46 primary studies that provided sufficient information for quantitative synthesis, 898 distinct, non-overlapping research hypotheses which specified an expected relationship between distinct burnout constructs and distinct
predictor constructs were investigated. Because many of the 898 distinct research hypotheses were investigated multiple times in one or more primary studies, a total of 1605 research hypotheses were ultimately investigated. Of the 1605 research hypotheses, 379 dealt specifically with burnout among special education administrators.

**Burnout Constructs.** Of the 379 research hypotheses dealing with burnout among special education administrators, 14 distinct burnout constructs were employed as criterion variables of interest. The Maslach Burnout Inventory was used to measure all but 10 of the 379 burnout constructs. Reliability coefficients were reported for 369 of these 379 (97.3%) burnout constructs. Validity coefficients were reported for a mere 39 of the 379 (10.3%) total burnout constructs.

**Predictor Constructs.** Target population characteristics or organizational behavior variables may serve as predictor constructs. This inquiry yielded 29 distinct predictor constructs from the 379 research hypotheses. The most frequently occurring predictor construct was role ambiguity, which was measured 45 times. Other frequently occurring predictor constructs included role expectation frequency, role overload, personal inadequacy, self role concept, and resource inadequacy.

Reliability coefficients for predictor constructs were provided for only 12 of the 379 (3.2%) total constructs. Validity coefficients were provided for a mere 3 of the 379 (0.8%) predictor constructs.

**Descriptive Analysis of Statistical Tests**

**Statistical Tests.** Of the 379 statistical tests used in this inquiry, 364 (96%) utilized the Pearson product-moment correlation coefficient. Twelve (3.2%) statistical
tests were point-biserial correlations between one continuous variable and one dichotomous variable; the remaining three (0.8%) statistical tests were t statistics. These statistical tests closely mirror the numbers from the entire study (see Edmonson, 2000).

**Effect Sizes.** Effect size, according to Cohen (1988) refers to “the degree to which the phenomenon is present in the population” (p. 9). Stated conversely, an effect size means “the degree to which the null hypothesis is false” (p. 10). In statistical terms, then, the null hypothesis specifies that an effect size will be zero; likewise, the alternative hypothesis describes an effect size of any non-zero value, representing the degree to which said phenomenon is present within the population under study.1

Effect sizes generated for burnout relationships among special education administrators varied greatly in size and strength. Of the 379 effect sizes, 74 had an absolute value greater than 0.50, meeting Cohen’s (1988) definition of a large effect size; thus, 19.5% of the effect sizes were large effect sizes. Only 44 effect sizes, or 11.6%, ranged in absolute value of 0.30 to 0.49, thereby representing a medium effect size. The greatest number of effect sizes fell in between the absolute value of .010 to 0.29; 148 effect sizes, or 39.1%, met this criteria for a small effect size. The remaining 113 effect sizes, representing 29.8% of the total, ranged in absolute value from 0.0 to 0.9, meaning that they represented only a negligible relationship between the two constructs.

**Meta-Analyses of Selected Findings**

Six research hypotheses that yielded seven or more effect sizes and employed the same unit of analysis were explored in this inquiry. Table 2 gives the findings for each

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1 Understanding the effect size described above is important for effective statistical inference. An effect size must be a pure or dimensionless number, meaning that it is not recorded according to any set unit of measurement. This dimensionless characteristic serves a dual purpose. First, a dimensionless effect size represents a standardized measure, rather than representing any one specific unit of measure. Second, a dimensionless effect size can be synthesized and/or cumulated across studies (Cohen, 1988).
research hypothesis for which a meta-analysis was conducted. Each of these research hypotheses described the relationship between a distinct construct of burnout and role ambiguity. Role ambiguity, meaning that a special education administrator is uncertain of what his/her role is, is often closely related to job burnout in the literature (Fimian & Blanton, 1986; Gmelch & Gates, 1998; Holland, 1982). When special education administrators are not sure what is expected of them, when they lack the information or support to understand what their role should be, then burnout is often a consequence; this idea is supported by the data found in this study.

Likewise, the second most frequently occurring research hypotheses in this study involved other role tensions, including role expectations frequency, role overload, personal inadequacy, self role concept, and resource inadequacy (Riffle, 1986). Each of these hypotheses was studied six times for each of six burnout constructs in the synthesis population. Although meta-analyses were not conducted for each of these hypotheses in this study, the fact that role tensions comprised the most-studied group of predictor constructs is clearly noteworthy and thus warrants further study.

The findings described in Table 2 indicate the relationships that currently exist in the literature between burnout and role ambiguity. The average effect size estimate for both the frequency and intensity of emotional exhaustion as it relates to role ambiguity indicates a small positive relationship between these two constructs; thus, as role ambiguity increases, so do the frequency and intensity of emotional exhaustion. With the burnout construct of depersonalization, however, the results were somewhat different. The frequency of depersonalization shares a small positive relationship with role ambiguity, again suggesting that as role ambiguity increases the frequency of
depersonalization increases. However, the intensity of depersonalization maintains only a negligible relationship with role ambiguity, indicating that no clear conclusions about the relationship can be drawn. The frequency and intensity of personal accomplishment also yielded conflicting results. The intensity of personal accomplishment reveals a small but clearly inverse relationship with role ambiguity, meaning that as role ambiguity increases, the intensity of personal accomplishment decreases. The frequency of personal accomplishment, while still conveying a negative and thus inverse relationship, yielded an average effect size so small that the results can only be termed as negligible.

One additional noteworthy trend among all of these relationships is the very small amount of explained variance that is indicated. Thus, the relationships described by these meta-analyses, although important, account for only a small percentage of the variance that occurs in burnout among special educators. Accordingly, additional studies need to take place in order to fill in these gaps indicated by high amounts of unexplained variance. While understanding and alleviating role ambiguity is a step in the right direction, the data indicate that this solution alone will not solve the burnout dilemma.

The relationships described above, describing burnout constructs as they relate to role ambiguity, could have important implications for administrator preparation programs. If role ambiguity has a clear relationship to burnout among special education administrators, then clearly the duty exists for implementing techniques in preparation programs that will both alert future administrators to the existence of role ambiguity as well as give them potential avenues for alleviating role ambiguity. It is not an easy task, but it is certainly a necessary one.
Table 2

Meta-Analytic Findings for Six Research Hypotheses
with Seven or More Effect Size (ES) Estimates and the Same Unit of Analysis

<table>
<thead>
<tr>
<th>Research Hypothesis</th>
<th>No. of ES Estimates</th>
<th>Population of ES</th>
<th>Standard Deviation of ES</th>
<th>Percentage Of EV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of Emotional Exhaustion related to role ambiguity</td>
<td>7</td>
<td>0.124</td>
<td>0.405</td>
<td>1.538</td>
</tr>
<tr>
<td>Intensity of Emotional Exhaustion related to role ambiguity</td>
<td>7</td>
<td>0.135</td>
<td>0.288</td>
<td>1.833</td>
</tr>
<tr>
<td>Frequency of Depersonalization related to role ambiguity</td>
<td>7</td>
<td>0.148</td>
<td>0.138</td>
<td>2.184</td>
</tr>
<tr>
<td>Intensity of Depersonalization related to role ambiguity</td>
<td>7</td>
<td>0.081</td>
<td>0.234</td>
<td>0.651</td>
</tr>
<tr>
<td>Frequency of Personal Accomplishment related to role ambiguity</td>
<td>7</td>
<td>-0.063</td>
<td>0.163</td>
<td>.401</td>
</tr>
<tr>
<td>Intensity of Personal Accomplishment related to role ambiguity</td>
<td>7</td>
<td>-0.186</td>
<td>0.113</td>
<td>3.471</td>
</tr>
</tbody>
</table>

Note: For replication purposes see Edmonson (2000).

a. Population effect sizes are in the form of Pearson product moment correlations corrected for sampling error (Hunter & Schmidt, 1990).

b. Percentage of explained variances is derived by squaring the effect size and multiplying by 100.

c. Moderator variable analysis is thoroughly explained in Hunter & Schmidt (1990) and Edmonson (2000).

RECOMMENDATIONS

From the 379 research hypotheses found that addressed burnout among special education administrators, the magnitude of this problem can be better recognized and understood. This study analyzed all of the literature on special education administrator burnout, placing a heavy emphasis on those burnout hypotheses that were repeated often in the literature. Among these hypotheses, the relationship of burnout to role ambiguity and other role constructs clearly stands out. Thus, a number of important recommendations may be drawn from this study, both on the researcher level as well as on the practitioner level.
Implications for Research

The operationalization of constructs is, at best, inconsistent and should be pursued much more stringently in the research. Burnout, for example, is defined in a number of ways. Some authors describe burnout as a form of job stress (Cherniss, 1988; Dedrick & Raschke, 1990; Maslach, 1982; Wisniewski & Gargiulo, 1997). Others describe burnout as a reaction to stress (Greer & Greer, 1992) or as a number of physiological and psychological symptoms (Gold, 1989; Guglielmi & Tatrow, 1990; Hudson & Meagher, 1983). More clearly defined operationalization of constructs would increase the validity and reliability of all research, particularly research using meta-analysis and/or techniques of quantitative synthesis.

The coefficient of determination is used to describe the amount of explained variance in a study (McNamara, 1991). The amount of explained variance can therefore be used as an indicator of practical significance: a large amount of explained variance indicates practically significant findings, whereas a small amount of explained variance – meaning that a large amount of variance is unexplained by the variable being studied – would indicate low practical significance. Indicating the amount of explained variance in a study, then, would be beneficial to understanding the practical significance of research findings.

The study of burnout among special educators should include special education administrators. Of the 1605 effect sizes reported or derived in the initial inquiry of this study, only 23.6% dealt with the target population of administrators (i.e. special education directors). Likewise, only five of the 46 primary studies, or 10.87%, presented findings for special education directors. Because of the importance of administrators in
special education, the study of burnout among these professionals should be of primary concern for future research studies.

**Implications for Practitioners**

One way that administrators may deal with role ambiguity and other role tensions is through the development of coping strategies (Gmelch & Gates, 1998). Coping strategies are implemented by persons who experience stressors but believe they can successfully handle and/or overcome these problems. According to this theory, stress can occur in any of four means: task-based, role-based, conflict-mediating, or boundary-spanning. Likewise, the coping mechanisms that a person develops to deal with these stress types are classified into the same four categories. When a person experiences stress but can develop or utilize a coping strategy to deal with this stress, then burnout is less likely to occur. Just as coping strategies are used in handling role ambiguity, they may prevent burnout in the same way.

Role conflict and role ambiguity can be handled by other means as well. Along the same lines as coping strategies, Hackman and Oldham (as cited in Catanzaro, 1997; Fried & Ferris, 1987) developed the Job Characteristics Model to explain what characteristics of certain jobs resulted in reduced role ambiguity, reduced role conflict, higher motivation or satisfaction, and therefore less burnout. The Job Characteristics Model focused on five core characteristics of any job: skill variety, task identity, task significance, autonomy, and feedback. The greater the level of these core characteristics within a person, the less likely he/she is to experience burnout. Also important in this model is the educator’s growth-need strength, which indicates how important personal growth and success are to the individual. According to the Job Characteristics Model,
any job can be modified so that it is more satisfying to the employee, thereby making the employee less susceptible to burnout. Because several of the core characteristics mentioned above (i.e. feedback, autonomy, identity) are often identified as problem areas in special education, this model is particularly relevant to understanding burnout among special educators.

Furthermore, as mentioned previously, there are areas of administrator preparation programs that should address burnout as well. Ensuring that prospective administrators are prepared for their jobs – the stress, role conflict, role overload, and certainly the role ambiguity that will likely occur – should be an important part of any preparation program. Likewise, providing future special education administrators with the tools to develop or enhance their coping skills, conflict mediation skills, and self-awareness skills is also a valuable consideration (Gmelch & Chan, 1995; Gmelch & Torelli, 1994). Adequate preparation for the varied tasks that will face a future special education administrator is critical to preventing job burnout among these professionals.
References


Spaniol, L. (1979, January). Teacher burnout: How to cope when your world goes black. *Instructor, 56*-62.


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