

Abstract

An Investigation of Perceived Stress Levels of Leaders of Jewish Schools

Rabbi Elimelech Gottlieb

The purpose of this study was to examine stress levels of leaders of Jewish schools.

The literature consistently indicates that the school principal is a key figure in the overall success of the school. In recent years, the demands on principals have increased and the principal's responsibilities have become more numerous and complex. These demands may result in principals being subject to excessive stress levels and their attendant consequences. Research conducted over a period of many years suggests that principals' stress levels vary from moderate to severe. The data from these studies, however, was obtained from research with public school principals.

There is reason to believe that Jewish school principals may face greater expectations and demands than public school principals with their additional educational and religious responsibilities and the fact that Principals of Jewish Schools have additional, multi-faceted leadership roles and responsibilities than public school principals, and thus may be subject to even greater stress than their public-school counterparts.

Participants in this study were 187 principals of Jewish schools who responded to a survey that included the *Administrator Stress Index* (ASI; Gmelch et al., 1982), an instrument specifically created to measure stress levels in principals. The survey also included questions about demographic data about the principals' age, gender, and experience, as well as information about their schools. Analyses of the ASI data included:

(a) comparisons between the present study participant scores and previously published data on public school principals; (b) between-group comparisons between male and female leaders in the present study; (c) associations with potential conflict between levels of religiosity of leaders in the present study and their perceptions of their constituents' level of religiosity; and (d) associations with the nature of school board involvement for participants in the present study.

Results indicated that Jewish school principals had *lower stress levels* relative to the public-school principals in the comparison data. In the discussion section, I offer several reasons for this finding, including the possibility that leaders of Jewish schools benefit from appraisal and coping techniques associated with religious practice and belief. Several of the *a priori* hypotheses for the predictive value of demographic variables in understanding Jewish school principals stress levels were supported, and in the discussion section I considered the pattern of results that emerged.

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Elimelech Gottlieb

DISSERTATION

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The committee for this doctoral dissertation consisted of:

Dr. David Pelcovitz, Chairperson

Dr. Karen Shawn, Committee Member

Dr. Mark Schiffman, Committee Member

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I give thanks before You, Lord my God, that You have placed my lot among those who sit in the study hall. (Prayer upon exiting the study hall, Berakhot, 28b)

In 2006, the Doctoral program of Azrieli Graduate School was named in honor of Holocaust survivor, activist, author, and philanthropist Fanya Gottesfeld Heller z”l (1924-2017). I had the honor of meeting her at the reception marking this milestone. When I introduced myself as a child of Holocaust “survivors” she responded “another victory against Hitler”.

This is the perspective of holocaust survivors, and by extension, children of, holocaust survivors. Nothing is more important than Jewish continuity and there is no greater guarantor of Jewish survival than Jewish education.

I thus give special thanks to the Almighty for giving me the privilege of spending my life and career in Jewish education. I am especially privileged if I have played even a minor role in the education and rebuilding of the post Holocaust generation.

The final draft of this dissertation was written during the 2019 - 2020 COVID pandemic lockdown. Ironically, a central idea in this thesis discusses the growing and expanding responsibilities of educators. I salute the educators for their resilience, selflessness, and devotion in meeting the unprecedented challenges of these trying times. I express my condolences to those who lost loved ones and prayers for a full recovery to those who are ill.

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CHAPTER I

Overview

There is considerable evidence that prolonged or chronic stress has significant physical, psychological/emotional, and financial consequences for both individuals and organizations (Liu, Vickers, Reed, & Hadad, 2017). Moreover, the workplace has been shown to be a major potential source of stress (Quick & Henderson, 2016). Those individuals who work in people-related or service professions appear to be particularly susceptible to sources of stress and vulnerable to its consequences (Wieclaw, Agerbo, Mortensen, & Bonde, 2006).

In this context, the literature demonstrating the impact of effective *principal leadership on school success* is particularly salient. In 1977, for example, the United States Senate Committee Report on Education identified the principal as the single most influential person in the school, articulating the myriad ways in which the principal's leadership manifests itself.

In many ways the school principal is the most important and influential individual in any school. He or she is the person responsible for all activities that occur in and around the school building. It is the principal's leadership that sets the tone of the school, the climate for teaching, the level of professionalism and morale of teachers, and the degree of concern for what students may or may not become. The principal is the main link between the community and the school, and the way he or she performs in this capacity largely determines the attitudes of parents and students about the school. If a school is a vibrant, innovative, child-centered place, if it has a reputation for excellence in teaching, if students are performing to the best of their ability, one can almost always point to the principal's leadership as the key to success. (US Senate Committee Report on Equal Educational Opportunity, 1977, p. 56).

Twenty-five years later, Carole Kennedy, the principal in residence at the United States Department of Education from 1999 - 2001, maintained that the principal is the school's primary leader; the principal is the single person responsible for the provision of instructional, visionary, political, strategic, and emotional leadership. Simultaneously, the principal is the manager who is responsible for the efficient functioning of the school (Kennedy, 2002). In the principal's *primary* role, that of instructional leader, the principal impacts student learning directly through instructional leadership, and indirectly by creating the conditions for quality learning and instruction (Schiff 2001; Waters, Marzano, & McNulty, 2003). The principal is also expected to be a *transformative* leader, serving as a catalyst for continuous growth and improvement, constantly seeking ways for the school to evolve and change for the better. Effectively implementing transformative leadership requires the leader to develop and inspire others with a clearly articulated vision of the future, identify new opportunities for the school, and build consensus on school goals and priorities (Leithwood & Duke, 1999, as cited in Gur, 2002). It is the principal who will profoundly affect future generations because it is the principal who carries the weighty responsibility of educating future leaders (Brock & Grady, 20002).

But the complexities of the principal's roles do not stop there. Quantitative and qualitative expectations of what schools should be accomplishing and how children should be educated have continued to expand (Beausaert, Froehlich, Devos & Riley, 2016). Social and political movements have defined, shaped, and added to the role of the school, broadening, for example, the content and scope of the formal and informal curriculum. Schools are expected to address students' social and emotional learning, meet the specific needs of all

students, and help students develop in order for the students to eventually assume a central role in their community and society. Principals are increasingly being held responsible for the fulfillment of these numerous, varied, and sometimes conflicting expectations (Billott, 2003).

These demands may result in principals being subject to excessive stress levels and attendant consequences. This issue is a particularly critical one; when a leader suffers the consequences of stress, the entire organization will also likely suffer (Lemley, 1987, Morrison, 1977).

Research conducted over a period of many years suggests that principals' stress levels tend to vary from moderate to severe. The foundational research of Walter Gmelch and his colleagues (Gmelch & Chan, 1995; Gmelch, Koch, Swent, & Tung, 1982; Koch, Tung, Gmelch & Swent, 1982) found that principals suffer from moderate stress levels. Subsequent research (e.g., Savery & Detiuk, 1986; Wiggins, 1998) found that principals may actually have even higher stress levels than those originally found by Gmelch and colleagues (Gmelch & Chan, 1995; Gmelch, Koch, Swent, & Tung, 1982; Koch, Tung, Gmelch & Swent, 1982).

The data provided by these particular studies were obtained from research with *public* school principals. There is cause to believe, however, that *private*-school heads have even greater pressure than public school principals, because, for example, of the responsibilities and accountability that comes with recruitment and reenrollment and the higher expectation that comes with tuition (Hoerr, 2005). This was called to the attention of the public in a *New York Times* article (Gross, 2002) that observed:

The job of running a high-profile private school has become extraordinarily complex, with some arguing that its mix of curriculum development, public relations,

fundraising, conflict resolution, urban construction, and interpersonal relationships with the board, the faculty, the alumni, the parents, and the students is more suited to a chief executive than an educator. (p. B1)

Or, as the author bluntly puts it, “Parents pay a bundle...they expect a bundle” (p. B1). As Hoerr (2005) elaborates,

Leaders of nonpublic schools live with an additional dose of reality. There is no higher degree of accountability than that which comes from parents deciding each year whether to continue enrollment at a particular school. When tuition is charged the money spent often results in even higher expectations on the part of families.” (ibid, p. B3)

There is further reason to believe that principals of Jewish schools may face greater expectations and demands than either public or private secular school principals. Specifically, it is certainly plausible that Jewish schools, with their additional educational and religious responsibilities, require even more multi-faceted leadership than public or private secular schools. Marvin Schick (2014), for example, articulates the complex operations of the Jewish school whose management lies in the hands of the principal alone.

In elementary schools and high schools, the principal is far and away the key person, the individual with overall authority and responsibility for the educational program and, more generally, for the operation of the institution. It is the principal who is held accountable if educational performance falls short or when other problems crop up and it is the principal who interacts regularly with the school’s several constituencies — faculty and staff, outside educational agencies and officials, parents and students, and school officers and board members — that are involved in one way or another in the life of an educational institution. A school is, in short, a complex social reality and the only person with links to all of its elements is the principal (p.1).

The Jewish-school principal may well have higher levels of responsibility because success of Jewish education is often framed in terms of the degree to which the school

impacts future Jewish life and the Jewish practice of its graduates (Schiff, 1994). The Jewish-school leader, then, has an additional leadership role of great import, that of *religious* leadership, similar to Catholic-school leaders who “have an important added dimension: namely that of religious leader” (Augenstein and Konnert, 1991 p. 39). Thomas Sergiovanni (2009) stated that “in addition to being religious and managerial leaders, principals of religious affiliated schools are expected to be spiritual leaders responsible for building a community of faith within the school that is embedded with pastoral qualities” (p. 42).

Thus, there is reason to believe that the Jewish-day-school principal may have additional sources of stress than do public sector principals. Nevertheless, stress levels of Jewish school leaders have not been directly examined. When a leader experiences stress, or must live with the symptoms and consequences of stress or burnout, the entire organization is likely to be affected, as noted by Morrisson (1977), “Since leaders so much affect those under them, a distressed supervisor can do more damage than a distressed subordinate” (p. 408).

Rationale for the Present Study

The intent of the present study is to examine the stress levels of administrators of Jewish schools as a discrete group. The intent of this focus is, in part, a response to the recommendation of a group of researchers whose data revealed variations in reported stress levels among different educational leadership positions (Gmelch et al., 1982) and thus recommended that future studies examine possible variations among differences in leadership positions. Additionally, questions remain as to what extent, if at all, results from previous studies can generalize to principals of Jewish schools.

The present study sought to fill the aforementioned lacunae in the literature by examining the stress levels of Jewish-school principals using particular methodological features. This was a quantitative study whose primary measure was the *Administrator Stress Index* (ASI), an instrument specifically created to measure stress levels in principals (Gmelch & Chan, 1994; Koch et al, 1982). In the present study, the data regarding the reported stress levels of Jewish- school principals were compared to the data of stress levels of *public*-school principals extracted from two previously published studies that also used the ASI (Gmelch & Chan, 1994; Koch et al, 1982). Further, the present study gathered additional data on the principals (and their schools) who specifically participated in the present study. These data included school religious affiliation and number of students, as well as demographic data about the principals, such as age, gender, and experience. It was hypothesized that these variables would be associated with the stress levels of the principals (Koch et al., 1982).

One hundred eighty- seven (187) principals of Jewish schools participated in the study using Qualtrics, an online data collection platform. A limited number of paper surveys were completed as well. Data was analyzed using *IBM SPSS Version 25 and Comprehensive Meta-Analysis Version 2* (Borenstein et al 2005). Data analyses included calculation of:

- (a) effect sizes to compare stress levels of Jewish-school principals in the present study to stress levels of principals from each of two non-Jewish schools from prior research studies;
- (b) Pearson product-moment correlations to assess the relations between stress levels and *continuous* demographic variables of participants in the present study; and
- (c) independent, between-groups t-tests to compare stress between levels of *categorical* demographic variables of participants in the present study.

Chapter II

Review of the Literature

The purpose of this study is to investigate stress levels of principals of Jewish schools and the correlates of these stress levels. The present section presents a literature review, providing evidence for the need to conduct such a study. The review will first discuss the critical roles principals play in school success. This will be followed by a review of the study of stress, with a focus on stress in the workplace and the deleterious consequences that prolonged or acute stress has on principals, in particular. In addition, the research on potential sources of principal's stress levels—including growing demands—will be presented, drawing from available data on public school principals. Finally, evidence that Jewish-school leaders may have elevated levels of stress compared to their public-school counterparts will also be presented.

Principal Leadership

In 1959, Edgar Morphet presciently stated:

The kind and quality of leadership provided in educational administration is particularly important to the democratic society in which we live. The educational leader of the future must be a highly competent person who believes in democracy, in the inherent potentialities in people, and in the significance of the educational process; a person who has the knowledge, insights, ability and skills needed to function successfully as a recognized educational leader in helping people identify, analyze, and solve satisfactorily the problems with which they and their society are confronted (p. viii).

Morphet's prediction was validated several years later in the form of a 1977 United States Senate Committee report on education (US Senate Committee Report on Equal Educational Opportunity, 1977). This report identified the principal as the single most influential person in the school, stating the many ways in which principal leadership manifests itself.

In many ways the school principal is the most important and influential individual in any school. He or she is the person responsible for all activities that occur in and around the school building. It is the principal's leadership that sets the tone of the school, the climate for teaching, the level of professionalism and morale of teachers, and the degree of concern for what students may or may not become. The principal is the main link between the community and the school, and the way he or she performs in this capacity largely determines the attitudes of parents and students about the school. If a school is a vibrant, innovative, child-centered place, if it has a reputation for excellence in teaching, if students are performing to the best of their ability, one can almost always point to the principal's leadership as the key to success. (p. 56)

While there are various theories of the ways in which principals' activities specifically affect schools, findings from previous and current research are essentially unanimous in pointing to the critical role of the principal in the success of the school (Keller, 1998).

Carole Kennedy, the principal in residence at the United States Department of Education from 1999- 2001, considers the principal as the single person responsible for the provision of instructional, visionary, political, strategic, and emotional leadership. It is the principal who is considered the school's primary leader, the individual who is ultimately responsible for the efficient functioning of the school (Kennedy, 2002).

Eventually, the roles of principals became formally quantified as standards by licensure agencies which were adopted by many states. In 1996, for example, the Interstate

School Licensure Consortium developed six standards for principal leadership. These standards have been reiterated over the years (Murphy, 2003) and were revised in 2007 (Council of Chief state School Officers, 2007). Each standard links principal leadership to student achievement by opening each standard with the words, “An education leader promotes the success of every student by...”. The individual standards then proceed to identify various responsibilities, such as developing a vision of learning; responsibility for school culture and the instructional program; organizational management and safety; collaboration with staff; as well as certain responsibilities towards families and community partners. The educational standards also address moral and ethical leadership, keeping abreast of trends and initiatives, and being responsive to political and social changes (Murphy & Shipman, 2000, pp. 24-25).

A powerful description of the impact that the performance of principals has on schools was provided by Tamara Schiff (2001), who published results of a survey of 5,000 school principals that she conducted for the National Association of Secondary School Principals. In the introduction, she succinctly and eloquently states “At the heart of every good school is a good principal” (p. v). A decade earlier, Roland Barth (1990) discussed the then-recent research findings on principal leadership, noting that “one finding that consistently emerges from the recent waves of studies is the importance within the school of the principal” (p.63). In a statement remarkably resembling that of Schiff’s aforementioned conclusion, Barth encapsulated what makes a good school by stating, “show me a good school and I will show you a good principal (Barth, 2002, p. 119). The school principal is the leader charged with the progress of the school and its ultimate success. Hess and Kelly (2007) described this significant role of the principal in strong terms: “School leadership is

the key to school improvement. School principals are the front-line managers, the small business executives, the battlefield commanders charged with leading their teams to new levels of effectiveness” (p. 244).

Of all the aforementioned principal duties and responsibilities, there is one overarching profound and weighty mandate: the school principal has the responsibility for educating future leaders (Brock and Grady, 20002).

Numerous published research studies support the view that the principal is critical to the success of a school. Bradley Portin (2001) stated that “the centrality of school leadership as a necessary element for current school success is a well-determined part of the educational leadership research canon. It is the pivot around which much of a school’s progress depends” (p. 1). Portin (2004) categorized the leadership roles that principals play in creating successful schools in the following manner: instructional; cultural; managerial; human resources; strategic; external development; and micropolitical (p. 17). Marzano, Waters, and McNulty (2005) identified 21 practices in which principals engage in order to exercise effective leadership of their schools.

Leithwood and Duke (1999, as cited in Gur, 2002) reviewed educational administration journals and found the forms of leadership described clustered in six categories of principal leadership: instructional, transformational, moral, participative, managerial, and contingent. Of these, it is *instructional* leadership that is widely considered to be the critical aspect of principal leadership. However, the authors pointed to the emergence of *transformational* leadership as a priority for principals. Transformative leadership includes developing and inspiring others with a clearly articulated vision of the

future, identifying new opportunities for the school, and building consensus on school goals and priorities (Leithwood & Duke, 1999, as cited in Gur, 2002).

While the impact of the principal on the leadership of the school is undisputed, research regarding the extent of the principal's effect on student learning is inconclusive (Waters et al., 2003). There is no question, however, that the principal's activities have a significant impact on student learning, even if it is an indirect one. For example, Schiff (2001) wrote that it is the principal who "provides the necessary leadership to create an effective learning environment because without strong leadership, school climate suffers, good teachers become difficult to retain, and students fail to achieve at consistently high levels" (p. v). In another study, Leithwood, Harris, and Hopkins (2008) quantified the impact of principal leadership on student learning, concluding that "school leadership is second only to classroom teaching as an influence on pupil learning" (p. 27). More generally, Leithwood, Patten, and Jantzi (2010) asserted that "school leaders are capable of having significant positive effects on student learning and other important outcomes. Enough evidence is now at hand to justify claims about significant leadership effects on students" (p. 672).

A meta-analysis of school improvement literature (Waters et al., 2003) reviewed more than 5,000 studies on leadership and student achievement that were conducted over a 30-year period. Results demonstrated a significant correlation between school leadership and student achievement, providing robust (correlational) evidence for the association between effective school leadership and student achievement.

There is, of course, no reason to assume that the role of the principal is any less critical in a Jewish school than in a public school. It is nevertheless beneficial to quote Schick's (2007) description, written specifically regarding Jewish school leadership. Schick

opens his monograph of his survey of Jewish-school principals with a description of the complexities of schools and how the principal is the one person who manages these various challenges.

In elementary schools and high schools, the principal is far and away the key person, the individual with overall authority and responsibility for the educational program and, more generally, for the operation of the institution. It is the principal who is held accountable if educational performance falls short or when other problems crop up and it is the principal who interacts regularly with the school's several constituencies — faculty and staff, outside educational agencies and officials, parents and students, and school officers and board members — that are involved in one way or another in the life of an educational institution. A school is, in short, a complex social reality and the only person with links to all of its elements is the principal. (p.1).

If anything, it is plausible that Jewish schools, with their additional educational and religious responsibilities, require even more multi-faceted leadership, as will be discussed below.

The above research, then, demonstrates the vital role of the principal in school and student success. As such, it stands to reason that the deleterious effects of stress on the principal has the potential to profoundly undermine a school's mission. It is therefore important to examine the conditions under which principals work, as well as the potential hazards that stress could have on the effectiveness of the school principal.

The Study of Stress

Hardly a day goes by that the term stress does not find its way into a conversation. The construct that we call stress “has taken a tenacious hold on our society and is likely to be around for some time to come” (Jones & Bright 2001, p. 12). Stress, though, can mean many things to many people: “Despite its widespread use, or in spite of it, stress is not a clinical term; rather, it is used interchangeably with feelings of anxiety, conflict, threat, strain,

ambiguity” (Feitler & Tokar, 1986). It is therefore important that when discussing “stress” in the academic context, a research-based framework be applied.

The study of “stress” only became a “legitimate subject of academic study in the 1950s” (Newton, 1995, p. 31). Study of the “stress response” (i.e., the fact that our minds and bodies systematically react to external events) began with the work of Walter Bradford Cannon (Cannon, 1932). Cannon theorized that the body reacts to threatening external stimuli. In 1939, Cannon introduced the now famous concept of the “fight or flight” response, describing how the body responds to perceived external threats, which became for many subsequent researchers “the starting point for how stress occurs” (Cooper & Dewe, p. 19).

János Hugo Bruno Selye, better known as Hans Selye, is widely considered the father of modern stress study. Richard S. Lazarus, who has been acclaimed as one of the most influential psychologists of the 20th century (APA Monitor, 2020), stated that possibly no person in recent times has influenced stress theory and research more than Selye (Robinson, 2018).

According to Lawrence Hinkle (1973), it is Selye who is given credit with being the first to reference stress in the medical literature. Researchers and historians consider a 1936 article by Selye in which he posits the pattern of body’s biological response to any demands as the initial formulation of the stress response (Jackson, Ramsden & Cantor 2014).

Selye researched physiological responses to potentially stress-producing stimuli and the body’s systemic response to the stimuli (Selye, 1978). He discovered a pattern of physiological reactions to stress that he called the *general adaptation syndrome*, which he described as the body’s biologic responses to any demand (p. 75). Selye observed that

physiological reactions (such as increased heart rate and blood pressure) repeated over time could potentially cause wear and tear on the body, leading to harmful consequences.

Since the work of Selye (1946), other researchers have developed alternate conceptualizations of the stress construct. These were summarized by John Mason (1975) as:

1. The medical (physiological response based) approach advanced by Selye, which views stress as a disruptor to the body's balance and equilibrium, resulting in various physical and psychological illnesses.
2. The "life events" approach, which views stress as being the result of life-changing events of various magnitudes.
3. A third view of stress that conceptualizes the stress response as being an interaction between the person and the environment. A person's response to stress, according to this approach, is based on his perception or appraisal of the event and how the individual responds. The individual person's perception determines the stress and the reaction to the perception then determines the resulting consequences (Mason, 1975).

The third conceptualization, that the stress response is "an interaction between the person and the environment" has been named the "transactional" or "interactional" approach (Gmelch, 1991 p.12; Hiebert, & Basserman, 1987; Hiebert & Mandaglio, 1988; Jones & Bright, 2001). This approach views stress as an intervening variable within a complex and dynamic system of exchanges between the individual and their environment. In this conceptualization, stress does not stem from the individual or the environment, but rather from the *interaction* between the person and the environment (Appley & Trumbull, 1986, p. 14). Stress results from the individual's perception that the demands of a situation are greater than the individual's ability to cope with the demands. Pressures or demands, however, that are perceived by the individual to lie within his or her coping ability are not stressful.

Lazarus advanced the concept of the "transactional stress response." Lazarus has been hailed as "arguably the most influential scholar in this area in the twentieth century" (Daniels, 2001, p. 802, as cited in Cooper & Dewe, p. 66). Lazarus and his colleagues

(Lazarus & Folkman, 1984) observed that individual responses to potentially stressful situations varied. They therefore concluded that the primary culprit for the impact of stress is the intervening variable(s) between the stressor and the stressed individual. Thus, psychological stress refers to a particular kind of relationship between the person and the environment, in which the demands of any encounter tax or exceed the person's resources; that is, the transaction between the person and the environment was stressful when it was perceived by that person as harm, threat, or challenge to the person's wellbeing (Lazarus, 1995; Lazarus & Folkman, 1984).

In other words, psychological stress is the variable wherein the individual's *perception* of how stressful something is will determine the degree of stress subjectively experienced by the individual (Hiebert, & Basserman, 1987; Hiebert & Mandaglio, 1988; Jones & Bright, 2001). Although, according to Gmelch (1991), there may be individual differences among researchers regarding some specific aspects of the stress construct, all researchers maintain that the stress response is a cycle of (a) demand on an individual, (b) that individual's perception and response, and (c) the outcome of that response.

The study of stress emerged as an important and influential scientific and academic field in the mid-twentieth century. As the study of stress developed, stress in the *workplace* became an area of focus for stress researchers. Eventually, the study of the stress conditions related to *school principals* also became an area of study and concern for researchers.

Vocational Stress

The concept of "vocational" or "occupational" stress has, over time, become a major focus of stress research (Cooper & Dewe, 2004).

Occupational stress is defined by researchers as the negative experience that occurs when a job's demands exceed an individual's perception of their ability or power to meet those demands (Borg and Riding, 1993; Gmelch, 1982; Whan & Thomas, 1996). The World Health Organization (n.d. "What is Work-related Stress") defines vocational or work-related stress as "the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope".

Similarly, The National Institute of Occupational Safety and Health (NIOSH, n.d.) defined workplace stress as "the harmful physical and emotional responses that occurred when the requirements of the job did not match the capabilities, resources, or needs of the worker" ("What is Job Stress" section).

The data that has emerged from the research on occupational stress support the idea that vocational stress has been increasing over time (Jones & Bright, 2001). Numerous studies over the past few decades confirm that job stress is a major source of stress for American adults, and that it has escalated progressively during this time (Quick & Henderson, 2016; Whitley, Allison, Gallery, Cockington, Gaudry, Heyworth & Revicki, 1994). Furthermore, there is a considerable body of evidence that occupational stress has highly harmful psychological and physical effects. (American Institute of Stress, n.d.; American Psychological Association, n.d.; Cooper & Marshall, 1976; Quick & Henderson, 2016). Vocational stress "has been recognized as one of the most significant workplace health hazards for employees in the United States (Spector, 2002, p.134)". The NIOSH called stress at work a leading safety and health problem (NIOSH, n.d.).

Although there is consensus among stress researchers that it is the individual's subjective perception of stress that determines whether or not an event is "stressful," researchers assert that there are specific occupations that have greater potential sources of stress. Additionally, certain organizational situations, structures, and characteristics can also impact the amount of stress experienced (Brief & George 1995; Harris, 1995).

Of particular relevance for the present research is that individuals who work in occupations that provide human services, such as teachers, social workers, clergy, and counselors, are particularly vulnerable to the negative effects of stress in their work environments (Greenberg & Valetutti, 1986, pp. 3-5). Gmelch (1982) deemed principals as those in the human services occupations who are more susceptible to sources of stress in their work relative to individuals with occupations that do not provide human services. A specific example of the negative consequences of stress on those in human services professions is the finding of Breslow and Burell (1980, as cited in Cooper, Sieverding, & Muth, 1980) that "responsibility for people is significantly more likely to lead to coronary heart disease than responsibility for things" (p. 197). More recently, Wieclaw, Agerbo, Mortensen, and Bonde (2006) found that "there was a consistent association between employment in human service occupations and the risk of affective and stress related disorders" (p. 1).

Thus, *specific* organizations should be examined in order to identify and ameliorate potential sources of stress. Researchers of occupational stress adhere to the theory that it is the *perception* of the individual that determines the stress response; nevertheless, these researchers have categorized generic sources of stress that are common to all workplaces (Torelli & Gmelch, 1992).

John McGrath (1976) categorized six possible sources of occupational stress: 1) task-based stress; 2) role-based stress; 3) stress intrinsic to the behavior setting; 4) stress arising from the physical conditions of the workplace; 5) stress arising from the social environment; and 6) stress within the person system.

Cary Cooper and Judi Marshall (1976) delineated five categories of occupational stressors:

1. Stressors that are intrinsic to the job, such as poor physical working conditions, work overload, time pressures, and physical dangers;

2. Stress related to the individual's role in the organization, such as a conflict in their role, or stress related to ambiguity in their role, as well as stress related to responsibility for others' job performance;

3. Stress related to career development; that is, fear of not meeting expectations or professional aspirations;

4. Stress related to interpersonal relationships, i.e., getting along with others;

5. Stress related to organizational structure and climate, i.e., when employees have little say in decision making or lack time to consult with others (Cooper & Marshall, 1976, p. 12).

Gmelch and his colleagues (Gmelch & Chan, 1982; Koch, Tung, Gmelch & Swent, 1982) built on McGrath's (1976) model of the transactional nature of stress while identifying and categorizing stressors unique to the workplace. Gmelch and colleagues refined the model further by conducting research to categorize stressors unique to public school principals, namely role-based stress, task-based stress, conflict-mediating stress, and boundary-spanning stress. Gmelch and his colleagues investigated levels of stress in school principals using these

constructs, as will be explained in detail in the section on stress in school principals (Gmelch, 1991; Gmelch & Chan, 1994; Gmelch & Swent, 1982; Koch, Tung, Gmelch & Swent 1982).

Consequences of Stress

Literature on the negative effects of stress is legion. Stress is known to adversely affect a person's health and well-being (Liu, Vickers, Reed, & Hadad, 2017). National health organizations and medical organizations are unanimous in their warnings of the potential hazards of constant or acute stress. The American Institute of Stress (2020) itemized 50 possible effects of stress, covering almost every physical, cognitive, and behavioral function of the human being. Similarly, the Mayo Clinic (2020) warns that the symptoms of stress potentially affect body, thoughts, feelings, and behavior" (n.d.). NIOSH (2002, p. 3) stated that extensive literature links job characteristics (e.g., low levels of control and work overload) to job stress and stress-related outcomes, such as cardiovascular disease and psychological disorders.

Gmelch and Swent (1982) examined the relationship between stress factors and the health of school administrators. In every category that they investigated, increase in stress was associated with decrease in self-reported physical health.

Boylard (2011) reviewed the literature relating to the negative impact that stress has on a person's health and concluded that "excessive unmanaged stress has been linked to a long list of physical and mental health problems" (p. 1). Links have been established between stress and the incidence of coronary heart disease, mental breakdown, poor health behaviors, job dissatisfaction, accidents, family problems, and certain forms of cancer (Morrison, 1977, p. 407).

What is particularly significant for the present research, as noted above, is that those in the people-related professions seem to be even more susceptible to stress. Indeed, administrators estimated that 75% of the stress in their lives came from their jobs (Gmelch, 1982; Gmelch, Lovich, & Wilke, 1984; Wieclaw, Agerbo, Mortensen, & Bonde, 2006).

One of the most widely discussed psychological results of stress in the workplace is “burnout,” a term coined in the early 1970s by Herbert Freudenberger (1974). Christina Maslach and Susan Jackson (1981) described “burnout” as a condition consisting of three components. One component of “burnout” is *emotional exhaustion*, which occurs when individuals feel they are no longer able to give of themselves at a psychological level, as emotional resources are depleted. The second component of “burnout” is *depersonalization*, which occurs when an individual feels dysphoric and has cynical attitudes about one’s clients. The third aspect of the “burnout syndrome” is *personal accomplishment*. This occurs when individuals having low feelings of personal accomplishments believe their actions no longer make a difference and give up trying. Sarros, (1988) similarly defined “burnout” as “the specific physiological, psychological, and behavioral consequences of prolonged stress among helping service professionals like educators” (p. 184). Burnout creates “a state of physical, emotional, and mental exhaustion, as well as cynicism towards one’s work in response to organizational stressors” (Reichel & Neuman, 1993, p. 76). According to Maslach (2017), burnout undermines the care and professional attention that human service professionals give to their clients.

While the health and well-being of individual leaders is worthy of examination and concern unto itself, the effects of stress on leaders are shown to have far-reaching consequences. When the *leader* of an organization experiences consistent stress—including

the symptoms and consequences of stress or burnout—the likelihood of a deleterious impact on the organization is increased (Johnson, S. K., 2008; Skakon, Nielsen, Borg, & Guzman, 2010). A leader under stress, or living with the symptoms and consequences of stress or burnout, will likely affect the entire organization, as noted by David Morrisson (1977), who observed that “since leaders so much affect those under them, a distressed supervisor can do more damage than a distressed subordinate” (p. 408).

This well-established relationship between excessive stress and physical and psychological harm make it imperative to examine levels of workplace stress. The sources and mechanisms that cause stress must be more specifically identified if the data will be useful in attempts to ameliorate sources and consequences of stress in school principals.

Stress in School Principals

Over the last 50 years, there has been substantial research and even media coverage about how stressful it is to be a school principal. The demands of the job have increased over the years. Obviously, with increased demands placed on school principals, there will be a resulting increase in stress related to the occupation (e.g., Beausaert, Froehlich, Devos, & Riley, 2016; Brimm, 1983; Fullan, 1998; Portin, 2001).

As noted above, a distressed supervisor can potentially cause widespread harm in an organization and consistent levels of high stress in an organization can have a negative impact on those working in that organization.

These interrelations among stress, leadership, and organizational dynamics are consistent with the image of the school principal that is portrayed in popular media. This is demonstrated by the empirical findings of Thomson, Blackmore, Sachs, and Tregenza (2003). Their study examined the depiction in the media of the job of school principal and

was aptly titled *High stakes principalship – sleepless nights, heart attacks and sudden death accountabilities: Reading media representations of the United States principal shortage* (Thomson, Blackmore, Sachs, & Tregenza, 2003). In this study, Thomson et al. conducted a meta-analysis and found that the media depiction of the principalship is of a job of “long hours, high stress, pressure, dealing with conflicting demands and being pulled from one activity to another at a frenetic pace” (p. 121).

Mike Milstein and James Farkas (1988) questioned whether principals actually experience as much stress as what is depicted in popular media. While their own studies regarding stress levels in principals were inconclusive, their review of the academic literature showed that principals are portrayed as highly stressed and approaching burnout. They assert, “This message comes through with such frequency and consistency that we tend to accept it as fact that most educators are highly stressed and unable to effectively carry out their duties” (p. 232).

In academic literature, the portrait of the typical principalship is one of a position that places great, varied, and time-consuming demands on principals that go beyond the scope of what can reasonably be expected of one person, as demonstrated by the succinct title of the article, “A Job Too Big for One” (Grubb, Norton & Flessa, 2006). The history of the perception of the stressful nature of principalship was noted by Smith and Milstein (1984), who wrote that despite the “explosion” of articles dealing with principal stress, “it is hardly a new phenomenon” (p. 39). They reviewed five decades of educational literature discussing educator stress, demonstrating that the existence of principal stress has been noted for most of the century, and they predicted that this issue will likely continue into the future.

Stressful conditions faced by principals are attributed to the fact that principals face increased challenges from parents, teachers, students, special interest groups, superintendents, and, in the case of private schools, boards of directors and other committees. Principals function as instructional leaders, building administrators, and even social workers. Perhaps most stressful of all, they face the Gordian knot of accountability for their school without always being equipped with the adequate resources needed to fulfill their mandates (DiPaola & Tschannen Moran, 2003; Wallace Foundation Report 2011).

Already in 1974, Robert Moser expressed concern that principals have little control over their time because of the relentless and conflicting demands from different publics. Moser referred to principals as shock absorbers because of their constant navigation of conflicting constituencies and demands.

These conditions have been recognized by the Institute for Educational Leadership (IEL, 2000), which issued a report regarding the past and future demands on principals. The Institute's report emphasized that the future principal must combine traditional management roles with broad and far-reaching leadership and concluded that "the demands placed on principals have changed but the profession has not changed to meet those demands and the tension has started to show" (p. 3).

The demands on principals and the potential for stress are related not only to the magnitude of the demands but the complexity of the principal's role, with one reason being that demands come from constituencies with diverse interests. The principal's constituencies include students, staff, parents, community members and leaders, and central agencies and organizations. These groups often have different needs, priorities, and agendas that may conflict with each other. Lawson Savery and Michael Detiuk (1986) pointed out that the

demands made by different groups may be mutually exclusive, resulting in no one group being happy or satisfied.

Adding to the complexity and fluidity of the demands on principals is the fact that the community within which the school functions, as well as the broader society, has influence and both direct and indirect impact on the principal's mandate and mission. This may result in everchanging or increasing duties and responsibilities, as principals are expected to fulfill these new mandates (Billott, 2003). Moreover, since societal influences are constantly changing with the times, the expectations of the principal's role can be constantly in flux, as principals are expected to respond to these influences in formulating the school's goals (Billott, 2003). Diane Yerkes and Eric Guaglianone (1998) pointed out a specific way in how a shift in the demands placed on principals can be driven by societal changes. They observed that parents' expectations of schools now go well beyond meeting children's educational needs. As society has changed over the years, they pointed out, frustrated parents began to expect schools to solve non-educational problems, such as social-emotional and psychological issues that are affecting their children, expecting the school to find solutions to complex problems (Yerkes & Guaglianone, 1998).

This type of stress, whereby demands are made that require different responses to different constituencies, has been called "role pressure" and was noted by Eric Vetter (1976). Vetter noted the numerous and often conflicting agendas of those attempting to influence the principal: internal messengers such as teachers, students, administrators, and non-educational personnel; and external bodies that include school board members, fellow principals, parents, professional organizations, and elected officials. The scrutiny that principals come under

intensifies as their roles and responsibilities continuously grow. Indeed, principals are closely monitored at local, state, and national levels. As Michael Copland (2001) wrote,

If prompted, veteran principals will tell you that the expectations associated with the principal-ship have mushroomed over the past 20 years. Principals are now commonly portrayed as the key actors in school-level reform and face an audience of multiple constituencies who are ever more critical of their craft. (p. 528).

Reviewing the literature of the past 50 years confirms that quantitative and qualitative demands have been added to the principal's role with each passing decade.

Writing in the 70s, Gmelch (1977) noted that educational leaders were facing more change, conflict, and pressure than in prior decades. Furthermore, Eric Vetter (1976) pointed out that principals were facing a newly emerging stressor—namely, mistrust. Vetter observed that there was a rising phenomenon of mistrust for public officials, including school principals. The public no longer assumed leaders to be ethical, competent, and qualified. Thus, since the 1970s, principals increasingly found themselves in the position of constantly having to prove themselves to a skeptical public.

In the 1980s, Dorothy Smith and Mike Milstein (1984) noted:

Stress is one of the hottest topics being debated among educators today... However, stress is far from a new phenomenon. It has vexed educators for at least much of the present century and will probably continue to be one of our major concerns for the foreseeable future (p. 47).

Also in that decade, John Williamson & Lloyd Campbell (1987) described schools as “virtual hotbeds of stress” (p. 109) because of daily conflicts, confrontations, and demands.

They stated that this stress was so pervasive and prevalent that in addition to impeding principals' performance it affects their mental and physical health.

In the 1990s, Gmelch (1991) wrote of an exponential proliferation of articles written about the stress on school principals. In fact, he noted that since 1966, there were over 1,300 articles on school administrator stress and 6,843 citations in educational journals and documents related to principal stress. Clearly, identification of stress among school principals was becoming a growing and contemporary concern. James Lyons (1990) described schools as "fertile grounds for conflict" (p. 44). He identifies three specific forms that these conflicts can take: (a) principals have to navigate roles as instructional *and* managerial leaders; (b) principals must resolve conflicts between individuals in the organizations; and (c) principals must respond to constantly arising crises or problems.

Addressing the time constraints that principals face within a workday, Lyons added the high number of personal interactions (as many as 1,000 per day) that result in conflicts of time management and leadership priorities.

Like the researchers that preceded them in previous decades, C. Kenneth Tanner, Carl J. Schnittjer, and Truman Atkins (1991) found that principals were under stress. They asked 570 principals what percentage of their life stress stemmed from their job. Of these principals, 58% reported that 75% of the stress in their lives was from their jobs. Stress, the researchers found, was a daily pressure related to the constant balancing of the principals' many responsibilities and management functions with inadequate time to perform them.

Michael Fullan (1998) added to this roster of sources of stress the additional pressure placed on principals to constantly develop new initiatives as a result of new policies. These initiatives are frequently short-lived and replaced with newer initiatives. Parenthetically, it is

the author's experience as the head of school, that I would be asked each new year at the opening board meeting to list the new initiatives and programs for the new year. The fact that each year students would be encountering and learning new information and skills did not satisfy them. When a new board would be elected, "new" approaches were pursued with even greater vigor. "A new broom sweeps clean," a board member stated to me as some kind of intended encouragement to terminate as many faculty positions as possible.

As the new century began, the drumbeat of warnings regarding the escalating demands on principals intensified, as previous expectations remained while new ones were added. A new source of intensifying pressure noted in this new decade was unprecedented accountability for student achievement (Cooley & Shen, 2003; Grubb & Flessa, 2006; Portin, 2001).

In this vein, Portin (2001) stated that "it is increasingly apparent, particularly from practicing principals, that the work of school principals is becoming more difficult and complex" (p. 1). A new source of this condition was that as schools and communities grow more diverse, demands on principals to meet the needs of diverse learners and populations within schools mounted, with the principals increasingly being held responsible for student achievement. Additionally, there is a rapid emergence of new technologies in the educational sector, and principals are now expected to implement these technologies to educate students. Therefore, the expectation that the principal will integrate digital learning into the existing curriculum, as well as becoming proficient in the reporting and management components that accompany the technology, produces substantial additional stress on top of the factors previously delineated (Cooley & Shen, 2003; Portin, 2001; Wallace Foundation Report, 2011; Witziers, Bosker, & Kruger, 2003).

Other educational scholars also describe the demands being made on principals as unprecedented. Principals are overwhelmed and now being asked to do more than is reasonably possible. The principals' responsibility for student achievement while also meeting their social/emotional needs and at the same time being expected to manage the myriad other responsibilities that a principal is accountable for renders the job potentially exceedingly stressful (DiPaola and Tschannen Moran, 2003).

As expectations of what schools and principals must accomplish have expanded, so has the level of scrutiny and accountability placed upon administrators. At the close of the decade, Ellen Goldring et al. (2009) observed that "never before has the effectiveness of schools been monitored so closely and measured by quantifiable standards across school districts and states" (p. 20). As evidence of the growing demands on principals, Michael DiPaola and Megan Tschannen-Moran (2003) surveyed 1,543 principals and assistant principals in Virginia with a mailed questionnaire. The survey sample represented both men and women; suburban and rural schools; and school sizes ranging from 400 to 2,000 students. These administrators reported their most pervasive problems as being related to their expanding roles as instructional leaders, combined with difficulties related to organizational management. The administrators said that they were spending much more time on paperwork, emails, and special education than in the past. Eighty-four percent of the principals reported working more than 50 hours per week, and 28% reported working more than 60 hours per week. Adding to the administrators' stress was feeling that they lacked influence in policy-making, that they did not have authority to make certain key decisions, and that they lacked the human resources to fulfill their mandated responsibilities.

The intensity of the occupational stresses that are placed on principals has not escaped the notice of educational organizations at the national level. The Institute for Educational Leadership report (2000), for example, agreed with the description in the popular and academic literature concerning the multiple demands placed on principals. And, as if the stressors weren't already unreasonable, there is currently an added expectation that principals should collect, analyze, and use data in educational decision-making. Principals also must now conform to current federal and state guidelines, as well as complying with industry standards. Additionally, there is legislation regarding numerous tests that will be used to assess the school, and by extension, the principal's performance. Indeed, upon reviewing the challenges facing principals, the Carnegie Institute (DeLeon, 2006) labeled the current situation a crisis.

The most current literature on the topic mirrors the five decades of literature detailing the growing challenges principals are facing in leading and managing schools. In one such article, Simon Beusaert et al. (2016) reviewed the current and past literature and detailed the vast and varied principal responsibilities that include "guiding the teaching, networking with external partners and communicating with the parents; the administration and finances, personnel management and legally responsibilities for all issues that arise in their schools" (p. 348). In their pedagogical role, principals are accountable not only for student learning and related evaluations, but also for student competency and college or vocational school preparedness. Nowadays, there are many more governmental policies, regulations, and high stakes testing to implement than ever before. In executing all these duties, principals must also "collaborate with education bureaucracies, undergo regular inspections, and collaborate

with other supporting services beyond the school itself, all while being expected to have a leading role in implementing new educational innovations” (p. 348).

The previously discussed literature details the multiple pressures and demands on principals that are likely sources of stress. Overall, however, these articles and reports suffer from specific and substantive methodological limitations, namely, as noted by Milstein and Farkas (1988), they are largely anecdotal. Articles published since then, as surveyed here, are also largely anecdotal. Second, where surveys of some kind have been conducted, the literature reviewed above does not provide the actual quantitative data upon which the researchers base their conclusions. Third, these surveys were conducted with very specific populations and ignore the possibility of the impact of demographic variables (such as age; gender; experience; geographic differences such as urban or suburban schools; or school size) on stress levels.

By contrast, Gmelch and his colleagues set out to systematically research sources and levels of stress in educational leaders (Gmelch & Swent, 1982; Koch, Tung, Gmelch & Swent, 1982). Gmelch and his colleagues acknowledged the work of previous researchers such as Joseph Mcgrath (1976) and Cary Cooper and Judi Marshall (1976), who categorized identifiable sources of stress that are encountered in the workplace. Gmelch and Swent (1982), though, critique the work of these previous researchers as being too general in applying universal sources of stress across all workplaces. Gmelch (1991) posited his belief that each occupation has unique demands and multidimensional sources of stress. He and his colleagues, therefore, set out to discover and categorize stressors unique to educational administration that would reflect the multidimensionality of sources of stress within the complex administrative positions in schools (Gmelch, 1991). To do so, they developed a

quantitative measure to more clearly identify and quantify categories of administrative stress, as well as to identify sources of stress unique to public schools and the roles of public-school principals.

The questionnaire that would ultimately become known as the *Administrator Stress Index* was developed through a series of iterations that began with an existing index of Job-Related Strain (Indik, Seashore & Slesinger, 1964, as cited in Gmelch & Swent 1982), which was then supplemented with items that emerged from a thorough review of the literature and logs kept by principals. This process resulted in the identification of 35 sources of stress uniquely related to the roles of public-school principals. These individual stressors were then categorized into five general factors as follows (Gmelch et al, 1982; Gmelch & Swent, 1982): (a) *administrative constraints*, related to inadequate time, meetings, rules; (b) *administrative responsibilities*, related to the characteristic managerial tasks of evaluation, negotiation, and supervision; (c) *interpersonal relations*, related to resolving differences among and between stakeholders, colleagues, and supervisors; (d) *intrapersonal conflict*, centered around conflicts between one's performance and one's internal beliefs and expectations; and (e) *role expectations*, caused by a difference in expectations of one's self and the various stakeholders served (Gmelch & Swent, 1982, p. 5).

The newly designed instrument was then completed by 1,156 Oregon educational administrators that included vice-principals, principals, superintendents, and central office administrators (Gmelch & Swent, 1982). Gmelch & Swent did not provide the range or benchmarks for the Likert-type ratings but instead summarized their data as follows The factor showing the highest level of perceived stress was "administrative constraints," with a mean of 2.78. The other four factors showed moderate stress levels, ranging from means of

2.10-2.45. The highest-level *individual* stressors were “inadequate time to complete tasks, “government reports,” “paperwork,” and “phone calls”. Other high-ranking stressors that were bothersome to administrators were “gaining public approval and/or financial support for the school,” “evaluating staff members,” “trying to resolve parent/school conflicts,” “having to make decisions that affect the lives of others,” and “imposing excessively high expectations on myself” (Gmelch & Swent, 1982, pp. 19-20).

Gmelch and Swent (1982) conducted a post hoc analysis to gain insight into how stress may be experienced by different administrative positions, specifically superintendents, assistant superintendents, principals, vice principals, and central office administrators. In comparing the stress levels of the administrators, the analyses revealed few differences in stress levels on the subscales between administrative positions. Two groups of administrators—principals and superintendents—did differ in reported stress levels from two sources. In comparing principals and superintendents, Gmelch and Swent found that principals felt less stress from administrative responsibilities than district superintendents did. Superintendents reported higher levels of stress in the area of “administrative constraints” (p. 21). Another noteworthy difference was that principals reported higher stress emanating from interpersonal relationships than superintendents (p. 21). The significance of these differences between principals and superintendents is that, as will be explored in detail below, the role of *private* school principals may combine the duties and responsibilities of both public-school principals and district superintendents.

Gmelch and his team (1982) then conducted a formal factor analysis and found that 25 of the 35 individual stressors could be clustered in four categories of factors. The analysis is discussed further below in the “*Instrument*” section, but briefly, the 4 clusters of stress

factors were identified as role-based stress, task-based stress, conflict-mediating stress, and boundary-spanning stress. We discuss each of these briefly in turn.

Role-based stress arises from the roles and responsibilities of the administrator. It pertains to the administrator's beliefs or attitudes about their role in the organization and the interactions based on that role (Koch et al., 1982, p. 495). Role-based stress includes the constructs of both role conflict and role ambiguity. Role *conflict* occurs when the roles that principals play is in conflict with their value system or when demands are made on a principal by external sources that may conflict or compete with each other. Role *ambiguity* occurs when roles or job expectations are not clearly articulated (Gmelch & Torelli, 1993).

Task-based stress is the result of the demands of daily administrative tasks. These activities are generally related to activities that place extreme demands on administrators' time (Koch et al., 1982, p. 495).

Conflict-mediating stress arises from the principals handling conflicts within the school such as trying to resolve differences between and among students, resolving parent and school conflicts, and handling student discipline problems (Koch et al., 1982, p. 495).

Boundary-spanning stress arises from principals' activities outside the school that are necessary for the school such as, "negotiations, dealing with agencies, and gaining public support for school budgets" (Koch et al., 1982, p. 495). Gmelch and Chan (1995) stated that this final construct "appears to be unique to the field of school administrators" (p. 279), but they do not provide a basis for this assertion.

The results of the aforementioned factor analysis resulted in further refinement of the Administrator Stress Index, using these four categories as subscales with an additional nine

individual stressors (a complete description of the development of the ASI is found in the methodology section; the ASI is found in Appendix A).

Gmelch et al. (1982) then conducted additional post-hoc analyses of the aforementioned data submitted by the 1,156 Oregon principals. In addition to examining the stress levels of principals, Gmelch and his colleagues examined the degree of association between the principals' levels of perceived stress and the variables of age, experience, and position. These latter variables have been shown by extensive previous research to be related to stress responses (Indik, Seashore, & Slesinger, 1964; Koch, Tung, Gmelch & Swent, 1982; Mcgrath, 1970, as cited in Koch, Tung, Gmelch & Swent, 1982).

Results of the analyses indicated that three out of the four factors demonstrated statistically significant correlations with age (Koch et al., 1982). Specifically, both task-based and conflict-mediating stress were negatively associated with age, indicating that participants who were older tended to have less perceived stress in demands related to the principal's perception of their roles and responsibilities, i.e., the demands of everyday tasks and from handling conflicts. Boundary-spanning stress showed a statistically significant positive correlation with age, indicating that stress-related activities involving the school's external environment was associated with increased age.

Regarding the variable of experience, there were statistically significant *negative* correlations between the three factors of role-based, task-based, and conflict-mediating stress. Stress levels on these three subscales showed a decrease with increased years of experience (Koch et al., 1982). There was a statistically significant *positive* correlation between years of experience and boundary-spanning stress. Like the variable of age, boundary-spanning stress increased with years of experience. Koch et al. (1982) also

compared principals and superintendents on the four ASI factors of stress. Principals had statistically significant higher stress levels of stress on all factors except boundary-spanning stress, where superintendents had statistically significant higher stress levels than principals.

Several years following this study, Gmelch collaborated with Wilbert Chan, a middle school principal, and they conducted a study of the stress levels of 646 Washington State school administrators, of whom 161 were superintendents (Gmelch & Chan, 1995). Gmelch and Chan found that, based on the total ASI Scores, overall stress levels of school administrators were moderate, as they ranged from 2.13 to 2.88 on a five-point Likert scale, with one being low stress and five indicating high stress. At the same time, however, these researchers reported that overall, 26.6% of the respondents reported serious stress, i.e., a score of 4 or 5 on each of the four factors of the ASI stress scale, indicating a notable number of principals experiencing high stress.

The aforementioned data gathered by Gmelch and Chan (1995) was further analyzed by Torelli and Gmelch (1992), who investigated to what extent administrative stress varies between types of administrators. Torelli and Gmelch compared the stress levels of principals and superintendents on the four ASI factors. On the factors of task-based and conflict-mediating stress, principals had statistically significant higher stress levels than superintendents. On the boundary-spanning stress factor, superintendents had statistically significant higher stress levels than principals. On the role-based stress factor there were no statistically significant differences between the two groups.

Torelli and Gmelch (1992) attribute the differences in stress levels between principals and superintendents to the fact that principals who are involved in the daily management of schools have a heavier task load. Principals are also more often involved in conflict

mediation than superintendents. However, boundary-spanning stress encompass duties such as negotiating contracts, developing budgets, and compliance with regulatory agencies, which fall within the superintendent's responsibilities. This would thus account for the higher level of perceived stress that superintendents reported on the boundary-spanning subscale. The role of a principal in Jewish schools, which are not typically part of a larger organizational matrix of schools, usually combines the responsibilities of both principals and superintendents. This will be further discussed below in the section on Jewish-school leadership. This will be further discussed below in the section on Jewish-school leadership.

In summary, Gmelch and his colleagues (1982, 1995) found the following results from their primary and post hoc analyses of the studies they conducted examining the 35 individual sources of potential stress for principals.

- Twenty-five out of the total of 35 sources of stress clustered in four categories, identified as (1) role-based, (2) task-based, (3) conflict-mediating, and (4) boundary-spanning stress.
- Principals reported overall low-to-moderate stress levels on the ASI subscales.
- Task-based and conflict-mediating stress were negatively associated with age.
- Boundary-spanning stress showed a statistically significant positive correlation with age.
- There were statistically significant negative correlations between the three factors of role-based, task-based, and conflict-mediating stress with principal experience. Specifically, stress levels tended to be lower with increased years of experience.
- There was a statistically significant positive correlation between years of experience and boundary-spanning stress.

- Principals had statistically significant higher stress levels than superintendents in all factors of the ASI except boundary-spanning stress.
- Superintendents had higher boundary-stress levels than principals.

The data showing variations in reported stress levels among different educational leadership positions demonstrates that differences in positions can result in differences in stress patterns (Gmelch et al, 1982). They therefore recommended that researchers be alert to possible associations between variations among jobs and experienced stress (p. 10). This assertion provides a basis for examining stress levels of Jewish-school administrators as a discrete group, which is the focus of the present study.

A database search was conducted by the present author for additional studies of stress levels of principals. A small number of studies were found that supported the findings of Gmelch and his colleagues, namely, that principals have low-to-moderate stress levels. Some of these studies were conducted using the ASI, a modified version of the ASI, or other instruments created specifically to measure stress levels of principals.

One of these studies was conducted by James Farkas (1982) around the time of the Gmelch studies using the *Index of Job-Related Tension* (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). The *Index of Job-Related Tension* questionnaire contains 14 items reflecting experience with stressful events. Subjects were 302 principals in Western New York. Responses ranged from “rarely” to “almost never.” Farkas reported that principals reported low job stress, but no quantitative data is provided. Farkas does say that 32% of the principals reported that they often experience stress and 2% said they always do. It thus seems inaccurate to report that principals are experiencing “low stress” when 1/3 of the sample reported being *often* under stress. If 1/3 of the principals that were surveyed reported

that they were suffering from this degree of stress, it can be argued that the other school employees as well as the education of their students are likely to be similarly affected.

Using a slightly modified version of the ASI, Hiebert and Basserman (1987) examined the intensity of experienced stress in a small sample of Canadian administrators. Forty seven principals (42 males and 5 females) filled out the questionnaire. This small sample was further stratified by school size (100-300+), age (35-45), and experience (5 years-15+). Consistent with the findings of Gmelch and his colleagues (Gmelch & Chan, 1995; Koch Tung, Gmelch & Chan, 1982), Hiebert and Basserman reported that the principals in this study were moderately stressed, with a mean response of 2.62 on a 0-5 scale to the question, “Generally speaking, how stressful do you find your job?” (p. 2). ANOVAs were conducted to examine whether the intensity of stress varied across categories for the demographic variables of gender; rural or urban settings; years of experience within the school system; experience as an administrator; age; and/or levels of certification. They then examined the potential impact of the variables “level of certification” and “urban or rural school settings,” although they cited no support from previous literature to justify examining only these variables and found no statistically significant differences between the categories for these demographic variables. However, their use of an *open-ended question* could possibly introduce a bias to the results by virtue of the subjects’ potential wish to present themselves in a more favorable light (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Moreover, the small sample size of the Hiebert and Basserman study, as well as the conditions that may exist in different countries (their study was conducted in Canada), may limit the external validity of their results.

Bryan Hiebert and Salvador Mendaglio (1988) used the ASI in a similar study, utilizing a much larger sample of Canadian school principals. In this study, there were 429 respondents, 379 men and 48 women. About half of the respondents were between 35 and 45 years old, and most had more than 15 years of experience. Hiebert and Mendaglio used the same question (cited above) as Hiebert and Basserman, which asked, “Generally speaking, how stressful do you find your job?” Results indicated that the mean response was 2.99 on a scale of zero to five, a finding that they characterized as indicative of moderate stress levels. They nevertheless emphasized that 36% of the sample reported *extreme* levels of job-related stress, “equal to or approaching the highest levels of stress experienced by those people” (p. 7). Thus, while the mean shows an overall report of moderate stress levels, a significant percentage, more than one third, of the principals reported “extreme” levels of work-related stress. These findings clearly diverge from those of the Gmelch studies, the latter of which found no extreme levels of stress. Consistent with the 1987 study by Hiebert and Basserman above, Hiebert and Mendaglio found no significant association between stress levels and any of the following variables: gender, experience, age, or whether the schools were rural or urban. Again, however, caution is warranted in trying to generalize the results of this Canadian study to principals in the United States. Variables that differ between countries—such as culture and myriad differing conditions among schools, students, and the actual job of a principal—render caution before one would generalize findings from one country to another, different country.

Rosalie Tung was part of the research team that developed and studied the ASI. Tung (1980) examined whether gender predicted stress for principals. In her introduction, Tung pointed to a discrepancy between the number of male and female

administrators relative to the number of male and female teachers. Specifically, she noted that while statistics compiled by the National Education Association found that 70% of *teachers* in elementary and secondary schools are women, 37% of elementary school *principals* and less than 4% of secondary school principals were women (p. 344). Tung suggested that a possible explanation of this disparity was the feeling in the field that women “could not handle the stress and strain associated with administrative positions” as well as their male counterparts (p. 344). Tung therefore reexamined the above cited database from the 1977 study of principals in Oregon (Koch et al., 1982), this time investigating the association between gender and each of the four stress factors on the Administrator Stress Index.

Tung (1980) also examined the association between each of the four factors of the ASI and the variables of administrative position, age, number of years in current position, and experience. She found that women administrators reported statistically significant lower levels of stress than men on all but the task-based stress subscale. On the task-based subscale, the means of the female subgroups were, in fact, lower than those of the male subgroup, but this difference was not statistically significant. These findings (i.e., lack of significant differences in comparing levels of the various demographic variables) were consistent across all the demographic variables examined (p. 352).

However, it is the author’s opinion that Tung’s (1980) study that examined the association of gender with stress level factors suffered from a particular methodological limitation. Specifically, Tung’s study used data originally collected for a different study that was conducted by Koch et al. (1982) and, as a result, Tung’s study was comprised of *post hoc* analyses using archival data, rather than an examination of a priori hypotheses using

primary data. Archival data analysis suffers from a number of well-known methodological limitations, for example, researcher bias resulting from previous exposure to the data (Heng et al. 2018). Furthermore, Tung 's statistical analysis of previously analyzed data makes her results subject to increased Type I statistical error rates.

In a more recent study, however, Gardiner and Tiggemann (1999) found that women reported higher stress levels than men. Gardiner and Tiggemann conducted a multi-faceted study of 120 workers at the managerial level, comparing men and women. In addition to their overall comparison of stress levels between men and women, Gardiner and Tiggemann compared stress levels of women in male- versus female-dominated industries. Prior research suggested that both women's leadership as well as women's stress levels are negatively affected when they work in male-dominated industries (Eagly & Johnson, 1990, as cited in Gardiner & Tiggeman, 1999). Job stress was measured using the Survey of Work Pressure (Davidson & Cooper, 1983, as cited in Gardiner & Tiggerman, 1999).

Contrary to Tung's (1980) findings, Gardiner and Tiggemann (1999) found that women reported higher levels of job stress. Their analysis examining stress levels of women in male and in female dominated professions demonstrated that females working in male-dominated industries reported higher stress levels than females working in female-dominated industries (p. 307).

Research on the stress levels of women in the workplace, in general, though, has yielded inconclusive results. Gyllenstein and Palmer (2005) conducted an extensive review of studies comparing stress levels of females to males. They found that while much of the research demonstrated that women reported higher levels of stress than men, several studies

reported no such differences. They concluded that it is impossible to draw any firm conclusions regarding the role of gender in predicting levels of workplace stress.

The studies of Gmelch and his colleagues (Gmelch & Chan, 1995; Koch Tung, Gmelch & Chan, 1982) cited above took place in the late 1970s and early 1990s. These studies found low-to-moderate stress levels in principals. As discussed earlier, numerous articles published since that time have claimed that pressures and demands on principals have been increasing over time. Later studies cited below (e.g., Boyland, 2011; Collard, 2003; Wiggins, 1988) suggest that principals have moderate-to-high stress levels.

A small study in 1988 by Thomas Wiggins found, contrary to the findings of Gmelch and his colleagues (1982, 1995) that principals reported moderate-to-high levels of stress. Wiggins' study included 124 principals, using a survey instrument that included 16 pre-constructed organizational stressors. While Wiggins discussed how he created his survey, the actual contents of the survey are not provided in the study, nor did he present any of his actual data.

Savery and Detiuk (1986) conducted a larger survey of 288 primary and secondary school principals in Australia. They found that nearly 40% of the primary school principals and 30% of the secondary school principals often suffer excessive stress. Savery and Detiuk, however, fail to provide any of their data beyond these broad observations.

A more recent study that included both private Catholic school and independent school principals was conducted by John Collard (2003). Collard studied 371 principals in Victoria, Australia, in 1996. Subjects were asked to respond to statements about themselves related to stress and exhaustion in the workplace. Fifty-one percent of the respondents were male and 49% were female. They were principals of government, Catholic, and independent

schools. Collard's study demonstrated a number of findings: (a) over half of the survey sample experienced stress and exhaustion; (b) government school leaders were more than twice as likely to believe that they were overburdened and stressed compared to those from non-government schools; (c) men reported marginally more stress than women, although women principals of large institutions felt more stressed than men in similar institutions; and (d) stress levels were positively associated with school size.

Although Collard (2003) did not provide his actual data nor any information regarding the statistical significance of the findings, his observations do remain noteworthy. First, unlike the Gmelch studies, (1982,1995) principals in Collard's (2003) study reported high levels of stress. Most noteworthy is that government school principals reported higher stress levels than their independent and Catholic schools' counterparts. Collard maintained that this was due to the pace of change in government schools, with their ever-increasing guidelines and mandates (p. 11).

Holt and Turner (2005) conducted a study of school administrators in the Nambour district of Queensland, Australia, and their sample included 67 principals. Participants were given a questionnaire that (among other questions) asked how much work-related stress participants had in the past 12 months. Holt and Turner collected data that included gender, age, and years worked. Fifty-nine per cent of the leaders reported low levels of stress, 32% reported moderate stress levels, and 8% reported severe levels of stress. All participants reported that work was the major source of stress in their lives. The fact that 40% of the respondents report elevated stress levels, levels that these researchers called "acute," led Holt and Turner to conclude that this is an issue of concern. Moreover, 48% percent of the respondents considered leaving their workplace; 53% reported that they considered leaving

the profession altogether; and 39% reported that stress affects their performance. Holt and Turner did not provide the actual questionnaire they used, nor did they provide any quantitative data other than what was just discussed. In addition, Holt and Turner did not conduct any correlations of stress with demographic variables.

In a more recent study, Lori Boyland (2011) discussed the need to measure stress levels in principals because of: (a) the evolving roles of the school principals, (b) how these roles have been affected by societal changes, and (c) the resulting mental and physical toll due to job stress. Boyland's study included 193 principals in Indiana. These principals were asked to rate their level of perceived stress as low, medium, or high. The majority reported experiencing moderate-to-high levels of job stress. Thirty-eight and a half percent of respondents reported high job stress, 53.6% moderate job stress, and 7.8% low job stress. An overwhelming majority, 70%, reported more current experience of stress than in previous years. Boyland's data therefore supports the contention that principals are more stressed now than in the past. The associations between stress and the demographic variables of gender, age, total years as principal, highest degree earned, school community, and enrollment yielded no statistically significant relationships.

Numerous peer reviewed articles contain studies or surveys that were given to principals with a list of pre-selected, potentially troublesome, or stressful events. The principals were asked to rank how bothered they were by these items on a scale of 1 to 5, correlating to "Sometimes," "Always," etc. The researchers then created a rank order of sources of stress without providing the quantitative data on which these determinations were made. The researchers also did not provide any measurement of overall stress levels (e.g., Bergin & Solman, 1988; Fields, 1990; Koff, 1981; Tanner, Schnittjer, & Atkins, 1991).

Jack Brimm (1983) conducted a study that is frequently cited in articles related to principal stress. Brimm administered the ASI stress questionnaire developed by Gmelch and Swent (1982) to a group of Tennessee principals consisting of 258 elementary school principals, 75 junior high school principals, and 121 secondary school principals. In ranking the sources of stress, he found that the “administrative constraints” category contained the most individual sources of stressors. This was followed by (a) role conflict, (b) work overload, (c) inadequate compensation, (d) interpersonal conflicts with stakeholders, and (e) increased administrative responsibilities. It is important to note that Brimm’s study does not indicate the actual stress levels of the principals, but instead only details the rank order of the stressors that were rated in their study.

The survey of the studies that this author reviewed, which included data related to actual levels of stress among principals, converge on the following broad conclusions:

- Sources of stress for principals cluster around four main categories: role-based; task-based; conflict-mediating; and boundary-spanning stress.
- Early studies generally show low-to-moderate levels of stress in principals.
- Later studies generally show somewhat elevated levels of stress.
- Studies differ on whether correlations between stress and the variables of age, experience, gender, and perceived stress were statistically significant.

The question remains to what extent, if at all, that the results of these studies can generalize to principals of Jewish schools. Their stress levels represent a critical area of research that has not been undertaken. In addition, the potential influence of certain

demographic variables on stress levels in principals of Jewish schools has not been studied. It is the intent of the present study to address these questions and concerns.

Jewish School Leadership

“Leaders of Jewish day schools play an important role in shaping, nourishing, and sustaining Jewish commitment” (Levisohn, et al, 2016, p. 1).

There are numerous reasons to believe that the Jewish-day-school principal may have more sources of stress than their counterparts in public or non-Jewish private schools. In addition to the stressors unique to private schools previously cited (such as public relations, resource development, etc.), there are the generally higher expectations that come with parents paying tuition. More specifically, Jewish-school principals have to perform leadership and management roles necessitated by the multi-faceted nature of Jewish schools (Schick, 2016).

As noted above, there are a variety of leadership roles for principals, as detailed by Portin, (2004): instructional, cultural, managerial, human resources, strategic, external development, and micropolitical (p. 17). Jewish-school principals have to manage the obligations of each of these roles, but because the Jewish school maintains a vision that far exceeds *academics*, the leadership expectations of the principal is further magnified.

Jewish-school leaders are responsible for ensuring the transmission of, and adherence to, the Jewish faith, which is replete with myriad additional educational obligations that include historical, cultural, language, and practice of religious law. Alvin Schiff (1966) described Jewish day schools as “the most effective instrument for transmitting the Jewish heritage to Jewish youth, and consequently the surest method of insuring American Jewry’s creative continuity and ability to enrich American life” (p. 249). Jewish schools are a critical

component in maintaining loyalty to the religion and transmitting it to future generations (Ackerman, 1992). Moreover, because text-based education is considered to be an ideal way to promote loyalty to religion, and is, in fact, considered to be an optimal form of religious practice in and of itself, the school is a primary institution for the transmission of Jewish faith (Ackerman, 1989).

Simultaneous with Jewish day schools striving to foster commitment and adherence to Jewish values is the fact that Jewish schools are designed and/or expected to provide moral and character education, as well as to protect students from the undesirable elements of popular culture. These objectives of Jewish schooling are succinctly captured by Aaron Soloveitchik (1970), who distinguished Jewish schools as the one place “conducive to ideal behavior; to fervent observance of *mitzvot* (Jewish law) and the refinement of character” (p. 27).

Instructionally, Jewish schools have dual curricula; in effect, they are two schools in one. Claude Oppenheim (1998) in Tornberg, R. E. (Ed.) pointed out that despite the significant time and effort this curricular endeavor requires, many constituents of Jewish day schools insist that the school also provide a general education that is “equal to the best available elsewhere” (p. 6). Thus, in addition to the exhaustive list detailing school leadership responsibilities, the Jewish-school leader has a double-job. The Jewish-school leader performs the duties and has the responsibilities of two-full time difficult jobs. The principal of a Jewish school serves as the instructional leader for two different educational curricula, dual languages, dual faculties, and all the concomitant responsibilities of instructional leadership. Moreover, the principal must recruit faculty who are not only competent

educators but who are themselves spiritual and religious mentors that can lead and inspire their students (p. 6).

The success of Jewish education is often framed in terms of the degree to which the school impacts future Jewish life and the Jewish practice of its graduates (Schiff, 1994). This study conducted by Schiff, in which I participated while a student at the Azrieli Graduate School of Education and Administration, found that attending a Jewish school strengthens student Jewish identity and connections with communal Jewish life and behaviors into adulthood. The Jewish-school leader, then, has an additional leadership role of great import, that of *religious* leadership. John Augenstein and M. William Konnert (1991) pointed out that while Catholic school principalships are in many ways similar to public school principalships, the former “have an important added dimension: namely that of religious leader” (p. 39). More recently, Thomas Sergiovanni (2009) stated that, “in addition to being religious and managerial leaders, principals of religious affiliated schools are expected to be spiritual leaders responsible for building a community of faith within the school that is embedded with pastoral qualities” (p. 42).

Jewish school principals are leaders of faith-based schools, with a set of proscribed values that may conflict with contemporary society. David Fincham (2010) pointed out that such leaders face the considerable challenges of a “post-modern world that is characterized by moral-relativism, secularism, and materialism” (p. 64). As leaders who are expected to promote spiritual and moral values, school leaders are expected to be exemplars and role models of their faith; fulfilling this role may require great fortitude (Grace, 2008, as cited in Fincham, 2014). Fincham thus concluded that Catholic school leaders face complex challenges, and there is every reason to believe that Jewish school leaders are no different.

Jewish schools are generally not part of an overarching organizational umbrella or district, with the possible exception of Chabad or other Hassidic schools (Schick, 2014). Leadership roles may therefore encompass boundary-spanning type duties that typically would be the responsibility not of a principal, but of a superintendent in a public-school district. Moreover, Jewish schools are hardly monolithic, and variations in the culture of the school may impact the nature of the leadership roles, the job descriptions, and consequently, the sources of stress. Rapidly changing and shifting demographics—often within the same community—lead to the opening of niche schools that cater to very specific populations, which, in turn, may increase the strain on their principals, given that any available resources were already limited (Perl, 2011; Raab, 2006; Schick, 2014).

Many schools, particularly in suburban communities, are affiliated in some way with local synagogues and federations (Schick, 2014). George Wanaski and Lloyd McCleary (1980) found that principals of religious-affiliated high schools spent significantly more time engaged in community affairs but were less affected by governmental constraints, which could likely contribute to boundary-spanning stress in addition to the already significant workload.

The leadership model of the Jewish schools varies, but it generally includes a professional administration and a lay board consisting of school parents (past and present) and community leaders. Among other duties, the board assumes the financial responsibilities of the school. The principal serves at the behest of the board, which creates the principal's job description and hires and fires the principal. The principal is held accountable to the board. The professionalism and effectiveness of the board and the board's relationship with

the school's professional leadership also vary from school to school. The board can be either a source of support or an obstacle for the principal (Rosenblum, 1993).

From my years of experience as a principal and educational consultant, I can report anecdotally that principals express frustration and aggravation due to either too little board support on one extreme, or conversely, micromanagement by the board. Principals also anecdotally express concerns over individual board members or lay leaders who are perceived as placing their personal needs or agendas ahead of the school. I have also heard *board members* express *their* frustration that principals do not understand the board's role in school management or appreciate the board's efforts. Raab (2006) additionally noted the potential conflict that could arise when the administrator needs to become a disciplinarian with the child of a significant donor or influential board member. I can personally report that this is not a hypothetical scenario. Another likely source of strain for Jewish-day-school principals is the variability of student religious standards and outlooks. As demographics shift towards more diverse student bodies, potential areas of conflict that the principal must navigate are likely to increase.

In addition to navigating interactions with the lay leadership, Jewish-school leaders are expected to maintain ties or work closely together with rabbinic leaders in the community, whose priorities may differ among themselves or with the vision and priorities of the school principal. School administrators must also keep the community rabbis "in the loop" (Raab, 2006). Principals are obligated to attend, participate, and sometimes speak at community events, observances, and celebrations, especially *bar and bat mitzvot* (a celebration or ritual when a Jewish youth "becomes of age;" this age is 12-years-old for a

female and 13-years-old for a male.) This not only creates additional demands on the principal, but it also keeps him constantly in the public eye and under scrutiny.

Another source of stress is the higher expectation that comes with paying tuition. “Parents are paying a bundle; they expect a bundle” (Gross, 2002), p. B2). Jewish-school parents pay tuition that is often quite high, and Jews generally have larger family sizes, too. The overwhelming majority of the 861 Jewish schools in the United States are Orthodox (Schick, 2014), with parents who have many children (Pew Forum, 2015) and thus are paying considerable sums for tuition.

Also, unlike public school principals, Jewish-school principals do not have professional organizations that advocate on their behalf or represent them. Everyone must, instead, negotiate their contracts and deal with work-related issues on their own, usually with board members who are specialists in these areas.

On top of all of these factors, principals of all schools are facing degrees of what educators describe as obtrusive parental involvement, otherwise known by its more popularized term “helicopter parents” (Segrin, Woszidlo, Givertz, & Montgomery, 2013). Principals of private schools may also have to navigate higher levels of parental involvement; research indicates that parents whose incomes exceed the Federal Poverty Level are more involved in their child’s schools, as are parents with higher levels of educational attainment (Child Trends, 2013). Parents in Jewish day schools largely fall within one or both these two camps. One article placed the net worth of a Jewish family at more than twice that of the general population (Keister, 2003). The Pew report stated that Jews are the most highly educated religious group in the world (Hackett, McClendon, Potančoková, & Stonawski,

2016). The greater degree of parental involvement in Jewish schools can be helpful to principals, but it may also raise expectations, accountability, and demands on their time.

School size may affect the demands on principals, but not in the way one might expect. Yeshiva education is generally a “small school phenomenon,” as about half of Jewish schools have fewer than 200 students (Schick, 2016, p. 10). Scott Votey (2002) asserted that the “small”- school principal has a broader range of duties and must “move easily in the worlds of law, business, public relations, marketing, fund-raising, construction, finance, and local politics” (p. 57).

Schick (2006) provided data from a survey of “about 380” (p. 3) Jewish school principals. Oddly, he does not state the actual number of respondents, referring at another point (p. 25) to “nearly 400 respondents” (emphasis added). Eighty-two per cent of the principals in Schick’s survey indicated that their workload has expanded and become harder to sustain. Consistent with the literature cited in the present study’s literature review, Schick found the reasons easy to explain. The principals in Schick’s survey noted stress associated with the customary instructional leadership roles, fund raising, and involvement in communal activities, along with almost every aspect of management (even including facility maintenance). The respondents pointed to an explosion of paperwork, “with email and other relatively recent technology producing a constant flow of communications, written and oral, that require attention and probably more often than not, a response” (p. 85). Schick also cited the alarming increase in student learning disorders, behavioral and emotional problems, and the heightened involvement of parents who are ready “to pounce on the principal when they feel that their child has been treated unfairly by a teacher or parent or in some other manner” (p. 24). Schick also cited boundary-spanning and role-related type stress activities, such as

communal activities, involvement with local federations and agencies, fund raising, and responsibility for non-educational activities such as operation of the school office and maintenance.

There is, therefore, convincing evidence that Jewish-school leaders are subject to demands and pressures that would be expected to exceed their public-school counterparts. These higher level of demands and pressures likely produce higher levels of stress, and Jewish-school leaders should therefore be investigated as a discrete group. No such research, however, exists.

Samuel Lasko (1986) conducted a dissertation study, the purpose of which was to investigate the relationship of various demographic variables and coping techniques that principals utilized with different stressors. He found that there were five main stressors facing the Jewish-day-school administrator: trying to resolve conflicts between administration and teachers; trying to resolve parent/school conflicts; trying to complete work and reports on time; preparing and allocating budget resources; and supervising and coordinating the tasks of many people (p. 60). Lasko, however, did not provide data for the actual stress levels of his participants, a problem we have already noted that, unfortunately, is fairly ubiquitous in the available literature.

Yaron Roni Raab (2006) conducted qualitative research to determine causes of an apparent high turnover rate of Jewish-school principals. Of 11 principals who were interviewed, nine reported “stress, frustration, or burnout as contributing to their departure” (p. 81). Here, too, there is no quantitative data regarding stress levels of Jewish-school principals. Moreover, the very inclusion criteria for the participants required that they *left*

their positions, and the degree to which their perceived stress levels resemble those of principals who remain in their positions remains unknown.

A possible mitigating factor to the perceived stress levels of Jewish-school leaders is that religion may in fact be a buffer against stress. “Various aspects of religion are strongly related to physical and psychological well-being in the context of coping with adversity” (Park (2005) found that p.707).

More specifically, numerous benefits of religion (defined as “a search for significance in ways related to the sacred (Pargament, 1997, p. 32) and spirituality (defined as beliefs not necessarily part of any religious doctrine) are associated with better mental health, including lower level of reported stress and lower rates of anxiety and depression (Koenig, 2004; Arévalo, Prado & Amaro, 2008). The belief system of the principal may affect both the appraisal of the stressor and provide the individual with coping strategies. “Research indicates that religion commonly influences the appraised meaning of stressors” (Pargament, 1997 in Park, 2002, p. 7123). The extent to which this would ameliorate the stress associated with being a principal and the additional stressors faced by Jewish school leaders is questionable.

The purpose of the present study’s literature review was to demonstrate the importance of investigating the sources and levels of stress for leaders of Jewish school that could negatively impact their leadership and the success of the school.

There are several lines of reason that support this investigation:

- The principal plays a critical role in the success of a school.
- There is research that suggests that principals are subject to moderate-to-high levels of stress.

- There are detrimental physical and psychological consequences of being subject to prolonged or intense stress.
- Jewish-school leaders may have challenges that place them at higher risk for stress in the workplace than public school principals.
- There is no research examining stress levels in Jewish-school leaders and association of select demographic variables with these stress levels.

Chapter III

Research Questions and Hypotheses

Primary Research Questions

Research Question 1. How do the stress levels of leaders of Jewish day school compare to the stress levels of public-school principals?

Hypothesis 1:

Jewish day school leaders will report elevated levels of stress on a standardized administrative stress questionnaire, relative to public school administrators.

Research Question 2.

Will incongruity between principals' report of their own religious orientation and perceived religious orientation of their school be associated with higher levels of stress?

Hypothesis 2:

Principals' role-conflict stress levels will be statistically significantly higher for principals that report *incongruity* between the religious orientation of their school and themselves, relative to principals that report no incongruity.

Research Question 3.

Is there an association between reported stress levels in principals and the size of the school, as measured by the number of registered students in the school?

Hypothesis 3:

The association between school size and stress levels will not be statistically significant.

Research Question 4a.

Will principals' years of experience be associated with their levels of stress?

Hypothesis 4a:

There will be a statistically significant negative correlation between principals' years of experience and levels of stress, i.e., more years of experience will be associated with lower levels of stress.

Research Question 4b.

Will principals' age be associated with their levels of stress?

Hypothesis 4b:

As participants' age increases, their levels of stress will decrease.

Research Question 5.

Will gender predict stress levels in Jewish day school leaders?

Hypothesis 5:

There will be no statistically significant difference in stress levels when comparing men versus women principals.

Supplementary Research Questions**Supplementary Research Question 1.**

Will principals' perception of appropriateness of board involvement be associated with stress levels?

Supplementary Hypothesis 1:

Compared to participants who report their board involvement as appropriate, participants who report their board involvement as inappropriate will demonstrate statistically significantly higher levels of stress.

Supplementary Research Question 2.

Will the number of Jewish schools in the community be associated with stress levels in Jewish day school leaders?

Supplementary Hypothesis 2:

Supplementary Research Question 2 is an exploratory research question; thus, an a priori hypothesis was not included.

Chapter IV

Methodology

Design

Participants in the study were asked to fill out the Administrator Stress Index (Gmelch & Swent, 1982; Appendix A), an instrument developed specifically to measure the stress levels of school administrators. Participants were also asked to complete a data sheet with demographic information (Appendix B), which was used for correlational analyses with the ASI data. The survey was carried out online using Qualtrics, an online survey platform.

Participants

The participants for this study consisted of randomly chosen leaders of Jewish schools in the United States who held the titles of principal or head of school. Leaders were asked to self-identify their Jewish affiliations with the choices: Modern/Centrist Orthodox COED; Modern/Centrist Orthodox Boys; Modern/Centrist Orthodox Girls; Haredi/Yeshivish; Hasidic; Conservative or Reform. Principals' names were obtained by lists provided by the Yeshiva University Institute for University School Partnership;¹Torah Umesorah;² Ravsak;³and the Solomon Shechter Association⁴. Additionally, Ravsak, and Merkos L'Inyonei Chinuch⁵ emailed the survey to schools in their respective networks. These organizations encompass various affiliations within Jewish education. Most of the participants held positions in schools they identified as Haredi/Yeshivish; ($n = 61, 33\%$),

¹ The Yeshiva University Institute for University School Partnership, now part of Prizmah, provides support services to Jewish schools.

² Torah Umesorah, the National Society for Hebrew Day Schools, is an Orthodox Jewish organization that promotes Jewish religious education in North America.

³ RAVSAK, now part of Prizmah, was the Jewish Community Day School Network of pluralistic Jewish day schools.

⁴ The Solomon Shechter association is the organization of Jewish day schools that identifies with Conservative Judaism.

⁵ Merkos L'Inyonei Chinuch is the central educational arm of Chabad-Lubavitch, a Hasidic organization.

followed by Modern/ Centrist Orthodox/ co-ed schools ($n = 46, 25\%$). One-half of the participants held the title “Head of School” and the rest “principal.”

Description of Recruitment

Prior to data collection, the study was approved by Yeshiva University’s Institutional Review Board: The Committee on Clinical Investigation of the Albert Einstein College of Medicine. Confidentiality was maintained for all respondents. Email responses were anonymous, with no information that could compromise the anonymity of the respondent. The online responses were password protected, and written results were kept in a locked drawer in the researcher’s office. Only the primary investigator and the researcher had access to the files with the data of the subjects.

Each of the potential subjects was sent an email with a link to Qualtrics (survey software) that contained:

1. A letter from the Chair of the dissertation committee endorsing the study (Appendix C)
2. A description of the purpose of the study, and how the information would be used (Appendix D)
3. Assurance regarding confidentiality and anonymity and how it would be maintained, including numbering the questionnaires and storing all matters pertaining to the study in a locked file. Participants were told that they may withdraw from the study if they wish.
4. The Administrator Stress Index (ASI)
5. A data sheet. The participants were asked to record demographic data about themselves and their schools on this data sheet (Appendix E).

In January 2015, the survey packages were emailed to 325 principals, with mailing lists provided by the Yeshiva University Institute for University School Partnership; Torah Umesorah; Ravsak; and the Solomon Shechter Association. Additionally, Ravsak, and Merkos L'Inyonei Chinuch emailed the survey to schools in their respective networks.

Follow-up emails and phone calls were made to the recipients of the emails over a two-month period, and surveys were completed in February and March of 2015.

One hundred seventy eight email surveys were completed following the Qualtrics link, and nine were returned by mail for a total of 187 surveys. The Qualtrics files were converted to SPSS. The mailed responses were manually entered into SPSS.

Ethical Procedures

Survey packets were distributed after receiving approval from the Institution Review Board (IRB) of Albert Einstein Medical College. The survey packets included an explanation of the instruments, the purpose of the study, how the information will be used, a letter signed by the committee supervising the research and a letter of informed consent. Anonymity was maintained by assigning numbers to the questionnaires and all matters pertaining to the study were kept in a locked file.

Sample Size and Power Considerations

Research Question 1

In general, the number of participants required in a study depends on three key factors: (a) the magnitude of the anticipated effect; (b) the tolerance for Type II error (power); and (c) the tolerance for Type I error (alpha level).

Sample size for the proposed research was calculated based on the consideration of balancing Type I error rates and achieving adequate statistical power. When available,

estimates of required sample size were derived from effect sizes in the published literature. Because of the novelty of the hypothesis in Research Question 1, no data was available to estimate an anticipated effect size. However, an effect of $d = 0.5$ (i.e., administrative stress in the participants of the present study being $\frac{1}{2}$ of a standard deviation larger than each of the comparison groups from Koch et al. [1982] and Gmelch & Chan [1995], respectively) is commonly considered a moderate effect size (Cohen, 1983), and in this case, would likely represent a clinically “meaningful” difference in administrative stress between the groups being compared. G*Power version 3.1.9.4 (Faul, Erdfelder, Lang, & Buchner, 2007) was used to calculate the necessary sample size to obtain a statistically significant, two-tailed t -test with an alpha level of .05, power of .80, and an allocation ratio in which the sample size of the current study is *not* assumed to necessarily be equal to that of the data to which it would be compared (i.e., Koch et al. [1982], as well as Gmelch & Chan [1995], respectively). Results indicated that the sample size would need to be at least 128, with at least 64 participants from the individuals who participated in the present study and 64 participants for each of the comparisons to one of the groups with previously published data, i.e., Koch et al. (1982), and Gmelch and Chan (1995), respectively.

Research Questions 2-7

For research questions 2-7, data from previous research was used to estimate anticipated effect sizes of predictors on ASI scores.

In a study by Clash (2007), age, gender, years of experience, and enrollment levels were investigated, with effect sizes ranging from $d = 0.64$ to $d = 0.71$. With the aforementioned proposed 64 participants for the present study, power to identify significant effects would range from 71 to 80%.

Large effects of gender (d 's is a range of 1.03-1.28) were replicated in other samples as well (Tung, 1980). One study (Koch et al., 1982) found smaller effects of age on administrative stress ($d = 0.18$). It is possible that this smaller effect was due to a restricted age range, although no measures of dispersion (e.g., standard deviation, range) were published in that report, so the source of the smaller effect is difficult to determine conclusively.

Finally, the estimated effect size for congruity of administrators' views with those of the school's (also in Research Question 2) come from Gmelch and Torrelli (1993). In that study, the authors report a range of effects across multiple studies, with a mean effect of $d = 0.41$. Power to detect effects given the proposed 64 usable questionnaires was demonstrated to be 0.37. This level of power falls short of the .80 convention. In order to achieve power of .80, a total of 190 participants would have been required. Nevertheless, we chose to include this data in the present study, given the fact that this is the only study to date, of which we are aware, that has examined the research questions included herein.

Instrumentation

Administrator Stress Index (ASI)

Each participant was asked to complete the Administrator Stress Index in order to assess their perceived level of stress. The Administrator Stress Index (ASI) was developed and validated by Gmelch and Swent in 1982 to investigate occupational stressors of school administrators (Gmelch & Swent, 1982; Koch, Tung, Gmelch & Swent, 1982) (Appendix A).

Demographic Questionnaire

Each participant completed a questionnaire that included basic demographic and other information. Specifically, the questionnaire contained 12 items, such as age, gender, highest secular degree, and other information (Appendix B).

Psychometric Properties

The ASI evolved from the 15-item Index of Job-Related Strain (Indik, Seashore, & Slesinger, 1964, as cited in Koch, Tung, Gmelch & Swent, 1982). In the first phase of ASI item development, 40 school administrators kept stress logs for one week. Each day, they were asked to report the single most stressful incident, as well as the most stressful series of related incidents. The administrators also had the opportunity to identify other sources of stress that might not have occurred during that week but were considered likely to occur at some point. In 1982, a study by Koch, Tung, Gmelch, and Swent sought to overcome deficiencies in prior research of administrative stress, and revisions were made to the instrument (Gmelch & Swent, 1982).

This instrument was then piloted using a sample of Oregon School Administrators ($N = 1,855$; (Koch et al., 1982). There were 1,207 questionnaires returned and of these 1,156 were usable, resulting in a response rate of 62.3%. To examine the factor structure of the ASI, the sample was randomly divided into equal halves of 578 participants each. In each of the subsamples, the average respondent was a 42-year-old principal with 11 years of experience. The initial validation sample of 578 participants yielded four dimensions within the ASI.

The first factor, **role-based stress**, consisted of seven items that demonstrated factor loadings ranging from .40 and .67 (Koch et al., 1982). The second factor, **task-based stress**, consisted

of 10 items, with factor loadings ranging from .33 to .70. The third factor, **boundary spanning stress**, had five items with factor loadings ranging from .43 to .60. The fourth factor, **conflict mediating stress**, comprised three items, whose factor loadings ranged between .56 and .86. Results indicated that factor one accounted for 50% of the variance, whereas factor two accounted for 22%, factor three for 16%, and factor four for 12% of the variance (p. 493). In the cross-validation study, 53% of the variance was associated with factor one, 21% with factor two, 14% with factor three, and 14% with factor four (p. 4953).

In both the validation and cross-validation samples from this study (Koch et al., 1982), the coefficients for internal consistency reliability for the factors were all .70 or higher. “To maximize internal validity of the instrument, the questionnaire was developed specifically for use on a homogeneous population, namely administrators of educational institutions” (Koch, Tung, Gmelch, & Swent, 1982, p. 493).

Through factor analysis, four sources of stress were identified as follows:

Role-based stress arises from the roles and responsibilities of the administrator. It pertains to the administrator’s beliefs or attitudes about his role in the organization and the interactions based on that role (Koch et al., 1982, p. 495). Role-based stress includes the constructs of both role conflict and role ambiguity. Role *conflict* occurs when roles principals play is in conflict with their value system or when demands are made on a principal by external sources that may conflict or compete with each other. Role *ambiguity* occurs when roles or job expectations are not clearly articulated (Gmelch & Torelli, 1993).

Task-based stress is the result of the demands of daily administrative tasks. These activities are generally related to activities that place extreme demands on administrators’ time (Koch et al., 1982, p. 495).

Conflict-mediating stress arises from the principals handling conflicts within the school such as trying to resolve differences between and among students, resolving parent and school conflicts, and handling student discipline problems (Koch et al., 1982, p.495).

Boundary-spanning stress arises from principals' activities outside the school that are necessary for the school, such as "negotiations, dealing with agencies, and gaining public support for school budgets" (Koch et al., 1982, p. 495). The factors on the ASI are distributed as follows:

1. Boundary-spanning stress: ASI items 15, 17, 21, 24, 27, 29, 35, and 37. 2. Conflict-mediating stress: ASI items 7, 13, 20, 23 and 33. 3. Role-based stress factor ASI items 3, 4, 5, 6, 8, 11, 16, 19, 22, 28, 30, 34, and 36. 4. Task-based stress factor used ASI items 1, 2, 9, 10, 12, 14, 18, 25, 26, 31, 32,38, 39, and 40.

In the present study, an ASI Total Score was calculated by averaging the scores across all items. Subscale scores were calculated by averaging the scores on items specific to that subscale.

Data Analyses

Research Question 1

How do the stress levels of Jewish day school leaders compare to stress levels of public- school principals, in general?

To address this question, we tested the hypothesis that Jewish day school leaders will report elevated levels of stress on a standardized administrative stress questionnaire relative to public school administrators. Responses to four subscales of the Administrative Stress Index were used to assess the various components of stress. Since the available comparison

data of public school administrators (Gmelch & Chan, 1995; Koch et al., 1982) is presented only in descriptive statistics (i.e., means, standard deviations, and sample sizes) and no individual participant data from these studies are available, the analysis was conducted by calculating standardized mean difference scores in the metric of Cohen's d , as well as the associated p -values. Version 2 of *Comprehensive Meta-Analysis* (Borenstein, Hedges, Higgins, & Rothstein, 2005) was used for these analyses.

Gmelch and Chan (1995) provided the necessary means, standard deviations, and sample sizes for each of the four ASI subscales from their sample of public-school administrators. Koch et al. (1982), however, provided data that required some additional calculations. First, their means and sample sizes for each subscale were not presented for their entire sample. Instead, they divided the sample into three separate age groups and provided the means for each group, respectively. In order to aggregate this data into a single mean score for each subscale, formulas from Table 7.7a in Higgins and Deeks (2011) were used. Next, since Koch et al. (1982) did not provide standard deviations, the standard deviations for the subscale scores from the present study were used to impute these data.

Research Question 2

Will incongruity between the religious orientation of the school and the principal's self-reported own religious orientation be associated with higher levels of stress?

To address Research Question 2, we tested the following hypothesis, using data collected from the participants in the present study only (no data relevant for this hypothesis was provided in the aforementioned studies by Gmelch & Chan [1985] or Koch et al. [1982]): Principals' role-conflict stress levels will be statistically significantly higher for

principals that report *incongruity* between the religious orientations of the school and themselves, relative to principals that report no incongruity. The analysis consisted of an independent *t*-test that compared the role-based stress subscale of the ASI between principals who responded “Yes” to the question, “Do you perceive your personal level of religiosity as different than the school population?” versus those who responded “No.”

Research Question 3

Is there an association between reported stress levels in principals and the size of the school, as measured by the number of registered students in the school?

To address Research Question 3, we tested the following hypothesis, using data collected from the participants in the present study only (no data relevant for this hypothesis was provided in the aforementioned studies by Gmelch & Chan (1985) or Koch et al. [1982]): The association between school size and stress levels will not be statistically significant. Since the data for school size variable was collected using an ordinal scale (i.e., principals were asked to indicate if their schools had 101-200 students, 201-300 students, etc.), a series of bivariate Spearman rank-order correlations were used to examine the association between school size on the one hand and each of the ASI variables on the other hand (i.e., each of the four subscales and the ASI Total score).

Research Question 4a:

Will principals’ years of experience be associated with their levels of stress?

To address Research Question 4a, we tested the following hypotheses, using data collected from the participants in the present study only: There will be a statistically significant negative correlation between principals' years of experience and levels of stress, i.e., more years of experience will be associated with lower levels of stress. Because each of the variables included in these analyses were continuous, Pearson product-moment correlation analyses were conducted.

Research Question 4b:

Will principals' age be associated with their levels of stress?

To address Research Question 4b, we tested the following hypothesis: As participant age increases, their levels of stress will decrease, demonstrating a statistically significant negative correlation. Because each of the variables included in these analyses were continuous, Pearson product-moment correlation analyses were conducted.

Research Question 5

Will gender predict stress levels in Jewish day school leaders?

To address Research Question 5, we tested the following hypothesis: There will be no statistically significant difference in stress levels when comparing men versus women. A series of independent *t*-tests were conducted to compare men versus women on the ASI Total score and on each of the ASI subscales.

Supplementary Research Question 1

Will principals' perception of appropriateness of board involvement be associated with stress levels?

To address Supplementary (Exploratory) Research Question 1, we tested the following hypothesis: Compared to participants who reported their board involvement as appropriate, participants who reported their board involvement as inappropriate would demonstrate statistically significantly higher levels of stress. A series of independent t-tests were conducted, in which participants who reported appropriate board involvement were compared to participants who reported inappropriate board involvement on the ASI Total score and each of the ASI subscales.

Supplementary Research Question 2

Will the number of Jewish schools in the community be associated with stress levels in Jewish-day-school leaders?

To address Supplementary exploratory Research Question 2, we examined the association between the number of Jewish schools in the community and levels of stress. Because each of the variables included in these analyses were continuous, Pearson product-moment correlation analyses were conducted.

CHAPTER V

Results

The data presented in this section represent the results of the statistical findings from this quantitative study. The focus of the present study was to examine stress levels of leaders of Jewish schools by (a) comparing the stress levels of leaders of Jewish schools to previously published data on stress levels of public-school principals, and (b) examining the degree to which the reported stress of Jewish-school leaders is associated with demographic and other select variables.

We first present the data obtained from the demographic questionnaire. Tables 1-9 contain the descriptive data for the participants by position, school affiliation, enrollment, gender, education, the size and location of the school, the geographic setting of the school, the number of schools serving the community, the relationship between the principal's and school's religiosity, and the level and perceived appropriateness of board involvement.

For the present study, three separate variables were used as indicators of experience: (a) overall years in education; (2) years as a principal; and (c) years at the current school. The latter variable was included since research suggests (Koch, Tung, Gmelch, and Swent, 1982) that *familiarity* due to past exposure can alter the subjective perception of, or reaction to, stress.

One hundred eighty-seven Jewish school administrators participated in the study. The respondents ranged in age from 25-years-of-age to 79 ($M=50$, $SD = 10.54$). There were twice as many men ($n = 124$) as women ($n = 63$). Years of educational experience ranged from 4 to 48 ($M = 24.6$, $SD = 10.39$) years.

By position, the largest group was “Heads of School” ($n = 89$) followed by “Principals of Elementary Schools” ($n = 48$).

School affiliations from which respondents were asked to choose were: Modern/Centrist Orthodox COED; Modern/Centrist Orthodox Boys; Modern/Centrist Orthodox Girls; Haredi/Yeshivish; Hasidic; Conservative; Reform; Community. Respondents largely identified as Haredi/Yeshivish ($n = 61$, 33%), followed by Modern/ Centrist Orthodox/ co-ed schools ($n = 46$, 25%) and community schools ($n = 33$, 18%). The remaining schools were fairly evenly divided among the listed categories.

The enrollment levels reported by the respondents were generally under 200 students. 52 of the respondents (28%) reported an enrollment of 1-100 students, and 45 respondents (24 %) reported schools with an enrollment of 101-200 students. 48 of the respondents (26%) reported school populations of 201-400, and the remaining 28 respondents (15%) reported working at schools with 400 or more students. These data on school size are consistent with Schick’s (observation that Jewish day schools are generally small (Schick, 2014).

One hundred twenty-four of the respondents (66%) in the present study were men, twice the number of the 63 (34%) women who responded. This is consistent with the findings of previous research demonstrating the predominance of men in leadership positions (Tung, 1980),

with the possible exception of schools that are comprised of only girls, in which case female principals tend to be the norm.

Regarding levels of education, the vast majority of school leaders in the present study held advanced degrees. One hundred twenty-four of the respondents (66%) held graduate degrees and 25 of the respondents (13%) had doctorates. Almost exactly half of the respondents ($n = 95$; 51%) had Rabbinical ordination (“*smikha*”).

The participants of the study came from schools that were in communities characterized as either suburban or urban. One hundred twelve respondents (59.9%) characterized their school as suburban, and 67 (36%) characterized their schools as urban.

The ages of the participants ranged from as young as 25 years of age to 79 years of age ($M=50$, $SD = 10.54$).

There was a wide range in the variables representing experience. Years in education varied from 4 years to 48 years, ($M = 24.6$, $SD = 10.39$); years as a principal from 1 year to 36 years ($M = 13.6$, $SD = 9.73$); and number of years in the same school from 1 year to 36 years. ($M = 9.0$, $SD = 7.4$)

Responses regarding how many Jewish schools serve the respondents’ metropolitan area also showed a wide variation. The lowest number of reported schools was zero and the highest 300 ($M = 19.8$, $SD = 40.34$).

Descriptive Tables of Demographic Variables

Table 1

Participants' Position

	<i>f</i>	<i>%</i>
Head of School	89	47.5
Principal, Elementary School	48	25.7
Principal, Middle School	14	7.5
Principal, High School	33	17.6
Missing ^a	3	1.6

^a Indicates instances in which participant data were missing for a given variable.

Table 2

Participants' School Affiliation

	<i>f</i>	%
Modern/Centrist Orthodox, COED	46	24.6
Modern/Centrist Orthodox Boys	3	1.6
Modern/Centrist Orthodox Girls	5	2.7
Haredi/Yeshivish	61	32.6
Hasidic	3	1.6
Habad	13	7.0
Conservative	16	8.6
Reform	3	1.6
Community	33	17.6
Total Administrators	183	97.9
Missing ^a	4	2.1

^aIndicates instances in which participant data were missing for a given variable.

Table 3

Participants' School Size

	<i>f</i>	%
0-101	52	27.8
101-200	45	24.1
201-300	27	14.4
301-400	21	11.2
401-500	13	7.0
501-600	7	3.7
601-800	12	6.4
801-1000	4	2.1
1000+	5	2.7
Total	186	99.5
Missing ^a	1	0.5

^aIndicates instances in which participant data were missing for a given variable.

Table 4

Participants' Type of Community

	<i>f</i>	<i>%</i>
Urban	67	36.8
Suburban	112	59.9
Rural	3	1.6
Total Administrators	183	97.9
Missing ^a	4	2.1

^aIndicates instances in which participant data were missing for a given variable.

Table 5

Participants' Experience

	<i>f</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>
How many years have you been in education?	176	4	48	24.6	10.40
Missing ^a	11 (5.9%)				
How many years have you been a principal?	185	1	40	13.58	9.73
Missing ^a	2 (1.1%)				
How many years have you been principal of this school?	184	1	36	8.92	7.24
Missing ^a	3 (1.6%)				

^aIndicates instances in which participant data were missing for a given variable.

Table 6

Participants' Age

	<i>f</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>
What is your age?	180	25	79	49.7	10.54
Missing ^a	7 (3.7%)				

^aIndicates instances in which participant data were missing for a given variable.

Table 7

Size of Community

	<i>f</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>
How many Jewish schools serve your metropolitan area?	180	0	300	19.8	40.34
Missing ^a	7 (3.7%)				

^aIndicates instances in which participant data were missing for a given variable.

Comparisons to Gmelch and Chan (1995) and Koch et al. (1982)

This section will present the levels of perceived stress on the ASI of participants in the present study relative to both the ASI data provided by principals in the studies by Gmelch and Chan (1995) and Koch et al. (1982), respectively. In addition, the associations between (a) perceived stress on the one hand, and (b) the demographic and related variables on the other hand will be presented.

On the ASI total measure of perceived administrator stress, participants in the present study reported a small-to-moderate degree of perceived stress (ASI Total score mean = 2.07, $SD = 0.59$; a score of 2.07 falling between “rarely or never bothers me” and “occasionally bothers me”) [Rarely or never bothers me = 1- 2; occasionally bothers me = 3-4; frequently bothers me = 5].

When examining the participants’ *specific* types of administrative stress, i.e., conflict mediating, boundary spanning, role-based and task-based, results also indicated small-to-moderate degrees of perceived stress.

On the conflict mediating stress subscale, participants’ results ($M = 2.22$, $SD = 0.92$) indicated small-to-medium perceived stress pertaining to conflicts within the school; solving problems and conflicts between people; handling discipline problems and dealing with irate parents; principals reported a low to moderate level of perceived stress. On the boundary spanning stress measure pertaining to tasks that arise from external conditions, such as negotiations and gaining public support, principals reported low levels of perceived stress ($M = 1.86$, $SD = 0.75$) On the role-based stress measure, pertaining to the administrator’s role, set interactions and beliefs or attitudes about his or her role in the organization, principals reported

low levels of perceived stress ($M = 1.68, SD = 0.73$). Finally, on the task-based measure pertaining day-to-day work overload, task difficulty, and the need for high achievement, principals reported low-to-moderate levels of perceived stress ($M = 2.44, SD = 0.82$)

Table 8

Means and Standard Deviations for Stress Levels (N = 187)

	Mean	Standard Deviation
ASI Total	2.07	.59
Conflict- based	2.22	.92
Boundary Spanning	1.86	.75
Role-based	1.68	.73
Task-based	2.45	.82

Research Question 1. How do the stress levels of leaders of Jewish Day Schools compare to the stress levels of public-school principals?

Research Question 1 addressed the hypothesis that Jewish-Day-School leaders will report significantly elevated levels of stress on role-based, task-based, boundary-spanning, and conflict-mediating stress factors of the Administrator Stress Index, relative to the corresponding ASI data of principals found in both Gmelch and Chan (1995) as well as Koch et al. (1982), respectively. We discuss each of these comparisons in turn.

Comparisons to Data Presented in Gmelch and Chan (1985)

Contrary to the a priori prediction, our results indicated that relative to the data for public-school principals there was either significantly *lower* reported stress for the Jewish

principals or no statistically significant differences between leaders of Jewish schools and the reported stress levels of public-school principals as reported on the role-based, task-based, boundary-spanning and conflict-mediating subscales of the ASI. More specifically, the results demonstrated the following: (a) Role-based stress: relative to the data presented in Gmelch and Chan (1995), the present sample demonstrated significantly lower role-based stress ($p < .001$), and the magnitude of this difference was in the large range ($d = -0.94$; Cohen, 1988); (b) Task-based Stress: relative to the data presented in Gmelch and Khan (1995), the present sample did not demonstrate a statistically significant difference in task-based stress ($d = 0.00$, $p = 1.00$); (c) Boundary-spanning stress: relative to the data presented in Gmelch and Khan (1995), the present sample demonstrated significantly lower boundary-spanning stress ($p < .001$), and the magnitude of this difference was in the large range ($d = -0.83$; Cohen, 1988); and (d) Conflict-mediating stress: Relative to the data presented in Gmelch and Khan (1995), the present sample demonstrated significantly lower conflict-mediating stress ($p < .001$), and the magnitude of this difference was in the small range ($d = -0.29$; Cohen, 1988).

Table 9

Comparisons between Participants in the Present Study (N = 187) to Gmelch and Chan (1995; N = 646) on ASI Subscales

	Std Diff in Means (<i>d</i>)	p-value
Role-Based	-0.94	< .001
Task-Based	0.00	1.00
Boundary-Spanning	-0.83	< .001
Conflict-Mediating	-0.29	< .001

Note. Std Diff in Means = standardized mean difference score.

Comparisons to Data Presented in Koch et al. (1982)

For these comparisons, results demonstrated the following: (a) Role-based stress: relative to the data presented in Koch et al. (1982), the present sample reported significantly lower role-based stress ($p < .001$), and the magnitude of this difference was in the medium-to-large range ($d = -0.56$); (b) Boundary-spanning stress: relative to the data presented in Koch et al. (1982), the present sample demonstrated significantly lower boundary-spanning stress ($p < .001$), and the magnitude of this difference was in the medium-to-large range ($d = -0.75$); (c) Conflict-mediating stress: relative to the data presented in Koch et al. (1982), the present sample did not demonstrate a statistically significant difference in conflict-mediating stress ($p = .58$); (d) Task-based stress: relative to the data presented in Koch et al. (1982), the present sample demonstrated no statistically significant difference in task-based stress ($p = .16$).

Table 10

Comparisons between Participants in the Present Study (N = 187) to Koch et al. (1982; N = 1166) on ASI Subscales

	Std diff in means (d)	p-value
Role-Based	-0.5	<.001
Task-Based	-0.11	0.16
Boundary-Spanning	-0.75	<.001
Conflict-Mediating	-0.03	0.58

Note. Std Diff in Means = standardized mean difference score.

Research Question 2:

Will Incongruity between the Religious Orientation of the School and the Principal's Self-Reported Religious Orientation be Associated with Higher Levels of Stress?

Research question #2 addressed the hypothesis that principals who report incongruity between their own religious orientation and that of their students will demonstrate significantly higher levels of stress on the ASI role-conflict subscale than principals who report religious orientation congruity. The rationale for this hypothesis was that role-conflict occurs when administrators are asked to play a role that conflicts with their value systems.

Results indicated no statistically significant difference $t[183] = 1.02, p = .31$) on the role-conflict subscale between the group who responded that their level of perceived religiosity was different from that of the students in their school, as compared to participants who perceived their level of religiosity to be congruent with (or the same as) the students in their school. The hypothesis for Research question #2 was therefore unsupported.

Table 11

Comparison between Principals Who Perceived Differences in Their Level of Religiosity and Their Students (i.e., Religious Orientation Incongruity) versus Principals Who Did Not Endorse Perceived Differences (i.e., Religious Orientation Congruity)

	Group						<i>t</i> -Test
	Religious Orientation Incongruity			Religious Orientation Congruity			
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	
Role-based stress	1.62	0.69	74	1.73	0.76	111	$t(183) = -1.02, p = .31$

Research Question 3: Is There an Association between Reported Stress Levels in Principals and the Size of the School?

Research question #3 addressed the hypothesis that stress levels will not be significantly associated with school size. Results demonstrated that there were no significant correlations between perceived stress levels on the ASI Total score, Conflict, Boundary, Role or Task subscales on the one hand and school size on the other.

Table 12

Correlations between Stress Levels and School Size

	<i>N</i>	<i>r</i>	<i>p</i> -value
ASI Total	186	.01	.87
Conflict	186	.05	.50
Boundary	186	-.17	.17
Role	186	-.05	.49
Task	186	.05	.50

Research Question 4: Is there an Association between Principals' Years of Experience or Age with their Stress Levels?

Research question #4 addressed the hypotheses that (a) there will be a statistically significant negative association between principals' years of experience and stress levels, and (b) there will be a statistically significant negative association between principals' age and stress levels.

Years of Experience

Years of experience was measured in three ways: (a) number of years that participants reported being principal; (b) number of years that participants reported being in education; and (c) number of years that participants reported being principal of their current school.

Number of Years as Principal. On the ASI total score, there was a statistically significant small-to-medium negative correlation between the number of years as principal and perceived stress. On the ASI subscales of both Conflict-mediating and Task-based stress, there were statistically significant small negative correlations. On the ASI subscale of Role-based stress, there was a statistically significant small-to-medium negative correlation. On the ASI subscale of Boundary-spanning stress, there was no statistically significant correlation with number of years as principal.

Table 13

Correlations between ASI Scores and Number of Years as Principal

	<i>N</i>	<i>r</i>	<i>p</i> -value
ASI Total	185	-.20	.01
Conflict	185	-.24	.001
Boundary	185	.08	.26
Role	185	-.25	.001
Task	185	-.15	.049

Years in Education.

On the ASI total score, there was a statistically significant small-to-medium negative correlation with participants' number of years in education. On the Conflict-mediating subscale, there was a statistically significant small-to-medium negative correlation. On the Role-based subscale, there was a statistically significant small-to-medium negative correlation. No statistically significant correlations with number of years in education were found for either the Boundary-spanning or Task-Based subscales.

Table 14

Correlations between ASI Scores and Participants' Number of Years in Education

	<i>N</i>	<i>r</i>	<i>p</i> -value
ASI Total	176	-.18	.02
Conflict	176	-.20	.01
Boundary	176	.02	.84
Role	176	-.24	.002
Task	176	-.09	.24

Years as Principal of Participants' Current School.

For the ASI total score, there was a statistically significant small negative correlation with number of years as principal of participants' current school. Results indicated a statistically significant small negative correlation and a statistically small-to-medium correlation with number of years as principal of current school for the ASI Conflict-mediating subscale and the ASI Role-based subscale, respectively. Neither the boundary-spanning nor task-based scales significantly correlated with number of years as principal of participants' current school.

Table 15

Correlations between Stress Levels and Number of Years as Principal of Participants' Current School

ASI	<i>N</i>	<i>r</i>	<i>p</i> -value
Total	184	-.17	.02
Conflict	185	-.15	.4
Boundary	185	.02	.8
Role	185	-.27	<.001
Task	185	-.12	.11

Age. On the overall ASI score, there was a statistically significant small-to-medium negative correlation between perceived stress level and participants' age. The conflict-mediating and role-based subscales both demonstrated statistically significant small-to-medium negative correlations with age. On the task-based subscale, there was a statistically significant small negative correlation with age. The boundary-spanning subscale, however, did not demonstrate a statistically significant correlation with age.

Table 16

Correlations between Stress Levels and Participants' Age

ASI	<i>N</i>	<i>r</i>	<i>p</i> -value
Total	187	-.20	.01
Conflict	182	-.20	.01
Boundary	185	.94	.01
Role	185	-.23	.01
Task	182	-.15	.05

Research Question 5: Will Gender Predict Stress Levels in Jewish-Day-School Leaders?

Research question #5 addressed the hypothesis that there will be no statistically significant difference in reported stress levels when comparing male versus female participants.

On the ASI overall measure of perceived administrator stress (i.e., the ASI Total score), both male and female participants reported a small-to-moderate degree of perceived stress ($Mean_{Males} = 2.07$, $SD_{Males} = 0.54$; $Mean_{Females} = 2.07$, $SD_{Females} = 0.69$). Both males and females had ASI total scores that were identical when rounded to two decimal points, i.e., 2.07, a score that falls between *rarely or never bothers me* (1-2) and *occasionally bothers me* (3-4). On the ASI subscales, there were also no statistically significant differences between male and female participants.

Table 17*Comparisons between Male and Female Principals on Stress Levels*

<u>ASI Scores</u>	<u>Gender</u>						<u>t-Test</u>
	<u>Male</u>			<u>Female</u>			
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	
Conflict	2.26	0.91	124	2.15	0.96	63	$t(185) = 0.71, p = .48$
Boundary	1.83	0.63	124	1.91	0.96	63	$t(185) = -0.69, p = .49$
Role	1.75	0.78	124	1.56	0.61	63	$t(185) = 1.69, p = .09$
Task	2.39	0.74	124	2.56	0.95	63	$t(101.81) = -1.19, p = .24$
ASI	2.07	0.54	124	2.07	0.69	63	$t(185) = -0.050, p = 0.96$

Supplementary Hypotheses

Supplementary Research Question 1: Will Principal's Perception of Appropriateness of Board Involvement be Associated with Stress Levels?

Supplementary research question # 1 addressed the hypothesis that principals who report inappropriate levels of board involvement will demonstrate significantly higher levels of conflict-mediating and boundary-spanning stress than principals who report appropriate levels of board involvement.

On the conflict-mediating subscale of the ASI, there was no statistically significant difference between those reporting appropriate versus inappropriate levels of board involvement $t[178] = 1.33, p = .18$).

On the boundary-spanning subscale of the ASI, however, there was a statistically significant difference between those reporting appropriate or inappropriate levels of board involvement. More specifically, participants who reported inappropriate levels of board involvement demonstrated higher levels of boundary-spanning stress.

Table 18

Comparisons of Principal Stress levels between Perceived Appropriate versus Inappropriate versus Inappropriate

Board Involvement

ASI Subscale Group

Appropriate

Inappropriate

	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>sd</i>	<i>N</i>	t-Test
Conflict	2.19	0.95	136	2.40	0.83	42	t(176) = -1.33, p = .18
Boundary	1.78	0.67	136	2.21	0.93	42	t(176) = -3.35, p = .001

Supplementary Research Question 2: Will the Number of Jewish Schools in the Community be Associated with Stress Levels for Jewish Day School Leaders?

Supplementary research question # 2 examined whether the number of Jewish schools in the community would demonstrate a statistically significant positive association with principals' stress levels, but no a priori predictions were made.

Results indicate that there were no statistically significant correlations between any of the ASI data on the one hand and the number of schools in the Jewish community on the other.

Table 19

Correlations between ASI Scores and Number of Jewish Schools in the Participants' Community

ASI	<i>N</i>	<i>r</i>	<i>p</i> -value
Total	180	-.02	.81
Conflict	180	.03	.73
Boundary	180	.003	.96
Role	180	-.06	.44
Task	180	.02	.83

Chapter VI

DISCUSSION

Discussion

Research Question #1 addressed the hypothesis that Jewish-school leaders will report significantly elevated levels of stress on role based, task based, boundary spanning, and conflict mediating stress factors of the Administrative Stress Questionnaire, relative to the corresponding ASI data of principals that is found in Koch et al. (1982), as well as Gmelch & Chan (1995).

In all instances stress levels were equal to, or less than, the comparison data. In five of the eight comparisons the between group differences were statistically significant. Taken together then, the results did not support the research question.

The hypothesis was based on the evidence that principals are beset by multiple and ever-increasing demands and responsibilities from multiple constituencies to whom they are accountable. It was hypothesized that Jewish-school principals face leadership challenges of greater magnitude and complexity.

The overarching question then, is why the hypothesis that Jewish-school leaders would report higher stress levels than public school principals was not supported.

The hypothesis considered that the role of a principal in a Jewish school encompasses functioning as the as a leader of a religious community. The principal of the Jewish school

would find the responsibility of being a spiritual leader combined with the numerous demands of a multi-faceted educational program would present additional sources of stress. The results of the study may suggest that the religious orientation nature of these schools and the leadership actually acts as a buffer against stress.

Park (2005) found that “Various aspects of religion are strongly related to physical and psychological well-being in the context of coping with adversity” (p.707).

More specifically, numerous benefits of religion (defined as “a search for significance in ways related to the sacred) (Pargament, 1997, p. 32) and spirituality (defined as beliefs not necessarily part of any religious doctrine) are associated with better mental health, including lower level of reported stress and lower rates of anxiety and depression (Koenig, 2004; Arévalo, Prado & Amaro, 2008).

That religion would act as a buffer to stress is congruous with the “transactional” model of stress and coping which is the basis of the Administrator Stress Index utilized in this research. The transactional model posits that perceived stress is the result of an individual’s cognitive appraisal of a potential stressor. The individual then makes adaptations or chooses coping processes based on that appraisal (Lazarus & Folkman, 1984). The appraisal a person makes and the subsequent methods he or she chooses to manage the stressful situation likely vary based on the personality and context of the stress and the integration of these two factors (Folkman, Lazarus, Gruen, & DeLongis, 1986).

The belief system of the principal may affect both the appraisal of the stressor and provide the individual with coping strategies. “Research indicates that religion commonly influences the appraised meaning of stressors” (Pargament, 1997 in Park, 2002, p. 707).

Support for the unique roles of the principal impacting the perception of the stressfulness of the principal position may be found in Schick's observations regarding principals' characterization of their experience (Schick, 2014). In his survey of principals, Shick asked the subjects to characterize their experiences as a principal. The highest two choices were "rewarding" and "satisfactory." "Very satisfactory" was not a choice. Of the participants in the survey, 82% responded rewarding and 14% chose satisfactory. Commenting on the extraordinarily large percentage of principals who responded "rewarding," Shick theorizes that job satisfaction or a lack thereof may be related to the difficulties of the job but it may still be a rewarding endeavor. He speculates that had the highest level of response been "very satisfactory" it would have been chosen by fewer principals (pp. 26-27). Similarly, while school leadership may be stressful, the perceived stress is offset by the principal's view of his job as a noble calling.

Research question 2 addressed the hypothesis that principals who report incongruity between their own religious orientation and that of their students will demonstrate significantly higher levels of stress on the ASI role conflict subscale than principals who report religious orientation congruity since role conflict occurs when administrators are asked to play a role which conflicts with their value systems.

No statistically significant difference was found on the role subscale between the group who responded that their level of perceived religiosity was different from the schools and those who perceived it as the same. The hypothesis is unsupported.

Research question 2 rested on the hypothesis that principals would encounter role conflict when their own religious values conflicted with that of the school's lay population.

There are several possible reasons we can speculate as to why in fact principals did not report perceiving such conflicts. One is that principals did not define or perceive their leadership roles as being connected to their own religious beliefs or defined by their religious beliefs. Portin (2004) cited above, detailed the various leadership roles of principals. For example, one of these roles is instructional leader. Religious orientation does not likely have any interference with improving learning and instruction.

Another factor possibly mitigating the potential for conflict is the shared experience among the school's constituents of membership in a religious community. "Participation in a religious community is an important factor when considering the beneficial effects of religion and spirituality" (Weber and Pargament, 2014, p. 359). Among these benefits is the amelioration of stress and anxiety (ibid).

Research question 3 addressed the hypothesis that school size will not significantly predict stress levels.

Stress related to school size was not significantly associated with perceived stress levels on the ASI subscales conflict, boundary, role, and task. The hypothesis is supported.

The basis of this hypothesis was the lack of evidence that school size would affect the potential stress sources of principals. The constructs of the forms of principal stress may actually be greater, for example, in a smaller school where the principal may be charged with more tasks because of limited resources.

Research question 4 addressed the hypothesis that there will be statistically significant negative associations between principals' age and stress levels and number of years of experience and stress levels.

Years of experience was measured in 3 ways: a. how many years have you been principal? b. How many years have you been in education? C. How many years have you been principal of this school? In each of these constructs there was a statistically significant small to medium negative correlation. The hypothesis is supported.

Supplementary research question 1 addressed the hypothesis that principals who report inappropriate levels of board involvement will demonstrate significantly higher levels of conflict mediating and boundary spanning stress than principals who report appropriate levels of board involvement.

On the conflict-mediating subscale of the ASI there was no statistically significant difference between those reporting appropriate or inappropriate levels of board involvement. On the boundary-spanning subscale of the ASI there was a statistically significant positive difference between those reporting appropriate or inappropriate levels of board involvement with those reporting inappropriate levels of board involvement indicating higher stress levels than those who reported appropriate board involvement,

The hypotheses measuring between group comparisons of the Jewish-school leaders or the effect of demographic variables on subjects' stress levels were generally supported showing no statistically significant effects on stress levels.

Limitations

Limitation 1. Research on typical response rates is varied. Baruch & Holtom's (2008) analysis found the average response rate to be rates 53%, while other research suggests a rate as low as 33% (Lindemann, 2018). Out of 325 emailed surveys there were 187 responses, a response rate of 58%.

The higher-than-typical response rate to this survey may be a result of the researcher being well known in the field and because of the researcher's outreach efforts. Thus, while the researcher's recruitment efforts through personal, phone, and email outreach may have contributed to the magnitude of the response, the personal interaction may limit the generalizability of the data to the population of principals as a whole (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Limitation 2: The present study is based on data collected using a monomethod (self-report) approach. The use of a single perspective in measuring a construct comes with inherent limitations, given the complexity of psychological constructs (Donaldson & Grant-Vallone (2002).

Limitation 3. There is a body of research that suggests that there may be a degree of incongruity between the beliefs survey participants express about themselves or others and the participants' actual behavior (Walker & Gur, 2017). This would indicate that the participants' actual behavior should be studied in addition to the attitudes that participants express.

On the basis of their own study, however, Walker and Gur determined that "there is a strong relationship between attitude and behavior, such that they appear to represent a single construct" (p. 146), thus mitigating this potential limitation.

Limitation 4. Another possible bias affecting accuracy of responses is deemed social desirability bias. Social desirability bias refers to the tendency of research subjects to give answers based on the need for social approval. Subjects may provide answers that they consider to be socially desirable, presenting themselves in a favorable light, possibly deviating to some degree from their own experience even in anonymous surveys (Podsakoff,

MacKenzie, Lee, & Podsakoff, n. p., 2003). Thus, principals may not want to depict themselves as being affected by stress. However, because there is, in fact, the comparative data that shows principals are willing to report more than minimal stress, the likelihood of social desirability bias affecting the findings of the present study can be assumed to be minimal.

Limitation 5. The responses in this study were from school leaders who are currently in their positions. It is plausible that principals left their position or left the field entirely as a result of the stress of the job. Indeed Raab (2006), cites stress as a leading cause of Jewish-school principals leaving the field. Thus, this study reflects the perceived stress levels of principals who remain in the field who may have greater capacity for stress management.

Further research

Because the study relies on self-report, qualitative research should be conducted to more accurately determine attitudes and beliefs about stress.

Research should be conducted to determine if there are measurable and identifiable variables in appraisal and coping methods of principals. An example of such a research tool would be the Grit Scale (Duckworth & Quinn, (2009). The Grit Scale is used to determine a person's perseverance and resiliency in the face of challenges and obstacles. This could prove to be very useful in determining suitability for a career as a principal and for providing training and preparation for those seeking the principalship.

As discussed in the limitation section, the responses in this study were from school leaders who are currently in their positions. There is significant turnover in the principal field. According to the National Association of Secondary School Principals, one in five

leave their schools each year and the association is launching an intensive research project to examine the causes (NASSP, 2019). Research should thus be conducted with principals who left the field to determine if stress was a contributing factor. Raab (2006), for example, cites stress as a leading cause of Jewish-school principals leaving the field. It would be of great significance to examine whether qualified people who could have positive impact on the Jewish education are leaving the field because of stressful jobs.

There are other administrative positions in the field of Jewish education such as General Studies and assistant principals. These administrators may also occupy what are construed as “middle-management” positions with their own unique stressors (e.g. Anicich, E. M., & Hirsh, J. B. 2017).

Further research might also be conducted to examine other possible intervening variables that may affect the perception of stress. These would include factors such as the principal residing in the community which could increase the level of interaction with the principal’s constituents. Another variable could be the level of remuneration. The level of compensation could affect how the principal appraises the stressors to which he or she is subjected.

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Appendix A

Administrator Stress Index

<p>The Administrator Stress Index (ASI) ©Walter H. Gmelch and Boyd Swent, Washington State University.</p> <p>Reprinted with permission.</p> <p>Please circle the appropriate response.</p>	<p>Not Applicable</p>	<p>Rarely or Never Bother Me</p> <p>1 2</p>	<p>Occasionally Bother Me</p> <p>3 4</p>	<p>Frequently Bother Me</p> <p>5</p>
<p>1. Being interrupted frequently by telephone calls</p>	<p>N/A</p>	<p>1 2</p>	<p>3 4</p>	<p>5</p>
<p>2. Supervising and coordinating the tasks of many people</p>	<p>N/A</p>	<p>1 2</p>	<p>3 4</p>	<p>5</p>
<p>3. Feeling staff members don't understand my goals and expectations</p>	<p>N/A</p>	<p>1 2</p>	<p>3 4</p>	<p>5</p>
<p>4. Feeling that I am not fully qualified to handle my job</p>	<p>N/A</p>	<p>1 2</p>	<p>3 4</p>	<p>5</p>
<p>5. Knowing I can't get information needed to carry out my job properly</p>	<p>N/A</p>	<p>1 2</p>	<p>3 4</p>	<p>5</p>
<p>6. Thinking that I will not be able to satisfy the conflicting demands of those who have authority over me</p>	<p>N/A</p>	<p>1 2</p>	<p>3 4</p>	<p>5</p>

7. Trying to resolve differences between/among students	N/A	1 2	3 4	5
8. Feeling not enough is expected of me by my supervisors	N/A	1 2	3 4	5
9. Having my work frequently interrupted by staff members who want to talk	N/A	1 2	3 4	5
10. Imposing excessively high expectations on myself	N/A	1 2	3 4	5
11. Feeling pressure for better job performance over and above what I think is reasonable	N/A	1 2	3 4	5
12. Writing memos, letters, and other communications	N/A	1 2	3 4	5
13. Trying to resolve differences with my supervisors	N/A	1 2	3 4	5
14. Speaking in front of groups	N/A	1 2	3 4	5
15. Attempting to meet social expectations (service clubs, friends, and the like)	N/A	1 2	3 4	5
16. Not knowing what my supervisor thinks of me, or how he/she evaluates my performance	N/A	1 2	3 4	5

17. Having to make decisions that affect the lives of others (colleagues, staff members, students)	N/A	1 2	3 4	5
18. Feeling I have to participate in school activities at the expense of my personal time	N/A	1 2	3 4	5
19. Feeling that I have too much responsibility delegated to me by my supervisors	N/A	1 2	3 4	5
20. Trying to resolve parent/school conflicts	N/A	1 2	3 4	5
21. Preparing and allocating budget resources	N/A	1 2	3 4	5
22. Feeling that I have too little authority to carry out responsibilities assigned to me	N/A	1 2	3 4	5
23. Handling student discipline problems	N/A	1 2	3 4	5
24. Being involved in the collective bargaining process	N/A	1 2	3 4	5
25. Evaluating staff members' performances	N/A	1 2	3 4	5

26. Feeling that I have too heavy a workload, one that I cannot possibly finish during the normal work day	N/A	1 2	3 4	5
27. Complying with state, federal, and organizational rules and policies	N/A	1 2	3 4	5
28. Feeling that my progress on the job is not what it should be or could be	N/A	1 2	3 4	5
29. Administering the negotiated contract (grievances, interpretations, and so on)	N/A	1 2	3 4	5
30. Being unclear on just what the scope and responsibilities of my job are	N/A	1 2	3 4	5
31. Feeling that meetings take up too much time	N/A	1 2	3 4	5
32. Trying to complete reports and other paperwork on time	N/A	1 2	3 4	5
33. Trying to resolve differences between/among staff members	N/A	1 2	3 4	5
34. Trying to influence my immediate supervisor's actions and decisions that affect me	N/A	1 2	3 4	5
35. Trying to gain public approval and/or financial support for school program	N/A	1 2	3 4	5

Appendix B

Demographic Questionnaire

1. Position Title:

Head of School Principal – Elementary Principal – Middle School

Principal – High School

Other: _____

2. How would you describe your school's affiliation:

Modern/Centrist Orthodox COED Modern/Centrist Orthodox Boys

Modern/Centrist Orthodox Girls Haredi/Yeshivish Hasidic Conservative

Reform Community

3. How many students were enrolled in your school as of September 30, 2014?

0 – 100 101- 200 201-300 301-400 400-500 501-600 601 – 800

801-1,000 1,000+

4. How many years have you been principal? _____

5. How many years have you been principal at this school?

6. What is your gender? Male Female

7. What is your age?

8. a. What is your highest secular degree?

High School Undergraduate Graduate Doctoral

b. Do you have Smicha? Yes No

9. How would you characterize the community served by your school?

- Urban Suburban Rural Other (Please specify)

10. Do you perceive your personal level of religiosity as different from the school population?

- Yes No

11. a. How would you characterize the involvement of your board in the school?

- Very involved Somewhat Involved Hardly Involved Not Involved

b. Would you characterize the board's involvement as appropriate?

- Yes No

12. How many Jewish schools serve your metropolitan area?

Appendix C

Permission to use ASI

From: Walter Gmelch <whgmelch@usfca.edu>
To: "rabbyeg@yahoo.com" <rabbyeg@yahoo.com>
Sent: Monday, December 8, 2008 12:20 AM
Subject: Re:

Dear Martin:

I hereby grant you permission to use the ASI in your doctoral work.

Please cite the copyright and provide a summary of the results.

Best wishes with studies!

Walt Gmelch

Appendix D

Letter from The Chairperson



AZRIELI GRADUATE SCHOOL of Jewish Education And Administration
2520 AMSTERDAM AVENUE
(212) 960-0186

NEW YORK, NY 10033
FAX: (212) 960-0184
Email: dpelcovitz@gmail.co

*David Pelcovitz, Ph.D., Professor,
Gwendolyn and Joseph Straus Chair in
Psychology and Education
Direct Line: 212 960 0196*

Dear Principal,

Rabbi Elimelech Gottlieb is engaged in a worthwhile and relevant research study which will empirically measure stress levels in Jewish School leaders. This research, which is part of Rabbi Gottlieb's doctoral dissertation will be conducted under my supervision.

The results of his findings has great potential significance to inform and guide the Jewish education field regarding the possible challenges school leaders face and what can be done to meet them.

I urge you to participate in the brief survey enclosed to maximize the accuracy of the findings for the benefit of Jewish education.

Thank you

Appendix E

Letter from the Researcher

Rabbi Elimelech Gottlieb

144-38 68th Drive Flushing, NY 11367 (347) 752-0244 GottLearning@gmail.com

Dear School Leader (or name)

I am conducting research to measure stress levels in Jewish School leaders under the supervision of Dr. David Pelcovitz at the Azrieli School of Education and Administration at Yeshiva University.

The results of these findings have great potential significance to inform and guide the Jewish education field regarding the possible challenges school leaders face and what can be done to meet them.

You will not be asked your name or the name of your school. Enclosed are questionnaires with some questions about you and potentially stressful situations you may encounter. It will take only a few minutes to complete.

Please feel free to contact me or Doctor Pelcovitz with any questions. (Dr. Pelcovitz's contact information is on the informed consent form).

I urge you to participate in the brief survey enclosed to maximize the accuracy of the findings for the benefit of Jewish education.

Many thanks for your participation.

Sincerely,
Elimelech Gottlieb