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LOYOLA UNIVERSITY CHICAGO

DEVELOPMENT OF THE PERSONAL AND PROFESSIONAL SELF-CARE SCALE

A THESIS SUBMITTED TO

THE FACULTY OF THE GRADUATE SCHOOL

IN CANDIDACY FOR THE DEGREE OF

MASTER OF ARTS

PROGRAM IN CLINICAL PSYCHOLOGY

BY

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ABSTRACT

In recent years, there has been an increased emphasis on the importance of self-care for psychologists and other mental health professionals. However, the research on self-care is limited because of the lack of an empirically based, psychometrically sound measure of this construct. Thus, the purpose of this project was to develop a measure of personal and professional self-care. The preliminary phase involved the development of a self-care definition and a two-factor framework that divided self-care into personal and professional activities. Based on this definition and framework, self-care items were generated for expert evaluation. After incorporating the expert feedback, 52 potential self-care sale items were selected for use in the initial validation study. A total of 422 licensed psychologists in Illinois completed the Self-Care and Professional Well-Being Survey. This survey contained the 52 self-care items as well as other measures of personal and professional well-being. Contrary to expectations, a two-factor structure for self-care was not supported. Factor analysis reduced the self-care scale to 34-items representing eight factors: Life Balance, Professional Development, Cognitive Strategies, Daily Balance, Professional Support, Exercise, Diet, and Sleep. The validity analyses provided strong initial support for the validity of the first five factors listed above. However, the validity support for the physical self-care factors was not as strong. Based on factor analysis and validity data, a five-factor, 28-item "Professional Self-Care Scale" was established for validation and use in future research.

CHAPTER ONE

INTRODUCTION

Practicing psychologists, like many professionals, face a myriad of professional and personal stressors that they must manage in order to function in the workplace and in their daily lives. Navigating these stressors can be difficult and if too overwhelming, can result in negative outcomes for personal and professional life. Not surprisingly, managing stress and preventing negative outcomes such as burnout or professional impairment have been important topics in the professional literature. This literature, however, is currently experiencing a paradigm shift. The early literature primarily focused on the impact of stress on functioning and what individuals can do to mitigate the negative consequences. With the growth of positive psychology and preventive medicine, self-care is an emerging topic, promulgated as a means of avoiding the adverse effects of stress and promoting professional functioning and well-being.

To advance our understanding of self-care, a reliable, valid measure of self-care is needed so that the construct can be systematically studied. The goal of the present study was thus to develop a measure of self-care. For the purposes of this research, psychologists were the focus of study, with the goal being to develop a measure that can be used in this population and similar groups of professionals. Professional psychologists confront both personal and work-related stressors and must incorporate self-care strategies in order to balance obligations, provide optimal services, and thrive in everyday

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life. Relevant literature concerning professional psychologists' stress, burnout, and self-care is presented as background for the conceptualization and development of the measure.

The Stress Confronting Professional Psychologists

As mental health professionals, psychologists experience unique personal and professional stressors. The literature on the stresses of psychotherapeutic work discusses many potential hazards, which can include emotional demands, challenging client behaviors, and physical and emotional isolation (Norcross & Guy, 2007). The psychotherapeutic process of listening to a client's problems, being constantly empathic, and dealing with intense emotions can be exhausting and draining for clinicians (Barnett, 2014; Deutsch, 1984; Maslach & Jackson, 1981; Norcross & Guy, 2007; O'Connor, 2001). Additionally, clients can present challenges that are especially stressful for psychologists such as aggressive, suicidal or dangerous behavior (Barnett, 2014; Deutsch, 1984; Farber, 1985; Norcross & Guy, 2007; O'Connor, 2001). Further, the nature of psychological work is often physically and emotionally isolating. Physically, psychotherapy is a solitary task, and psychologists may have minimal contact with associates or sources of social support (O'Connor, 2001). Emotional isolation is a potential hazard due to the "one-way" and confidential nature of the relationship and necessity of emotional discipline and restraint (Barnett, 2014; Guy, 1987; Norcross & Guy, 2007). Managed care has also introduced a variety of new stresses, including caseload and economic uncertainties, ethical challenges, increased workload, and loss of professional autonomy (Acker, 2012; Norcross & Guy, 2007; Rupert & Morgan, 2005). In this changing health care environment, psychologists must balance the stress of

meeting ethical, legal, and financial demands with the task of providing competent

services.

Consistent with the professional literature, surveys examining psychologists'

perceptions regarding the demands of their work have found that there are frequently

reported stresses inherent to psychotherapeutic work, such as maintaining emotionally

intense therapeutic relationships, working with challenging clients, and becoming over-

involved with work (e.g., Deutsch, 1984; Hellman, Morrison, & Abramowitz, 1987).

Psychologists also report stresses associated with organizational or contextual demands,

including scheduling issues, economic uncertainty, time pressures, and external

constraints on services (e.g., Hellman et al., 1987; Kramen-Kahn & Hansen, 1998;

Stevanovic & Rupert, 2004). While stresses may vary depending on the work setting and

type of services provided, both the anecdotal and empirical literatures suggest that

practicing psychologists face many diverse and challenging demands.

Consequences of Stress

Without proper management of these demands, stress may have negative

implications not only for the psychologists themselves, but also for their clients and the

profession as a whole (Advisory Committee on Colleague Assistance, n.d.-b). The

process resulting in negative outcomes has been conceptualized as a downward spiral

where stress in the absence of effective coping behaviors can lead to distress. Distress,

described as the subjective emotional response in reaction to demands and stresses

(Barnett, Johnston, & Hillard, 2006), when left unmonitored and unchecked, can then

lead to multiple negative outcomes. Of particular concern for psychologists is the

potential for professional burnout and impairment in personal and/or professional functioning.

The term "burn-out" was first used by Freudenberger (1975) to refer to the emotional depletion and loss of commitment that can occur among human service workers. As currently defined and measured, burnout is viewed as a syndrome characterized by three separate, but related components: emotional exhaustion (EE), depersonalization of clients (DP), and decreased sense of personal accomplishment (PA) (Maslach & Jackson, 1981). Emotional exhaustion has been considered the primary component of burnout and involves the depletion of emotional resources. The depersonalization component concerns negative, impersonal, and cynical thoughts and feelings about clients. The third feature of burnout is a decreased sense of personal accomplishment or the tendency to negatively evaluate oneself and one's work.

Research has consistently demonstrated that the demands of psychological work increase the risk of developing burnout among mental health professionals. The work-related demands that have been associated with burnout include hours worked, administrative/ paperwork hours, negative client behaviors, and overinvolvement with clients (e.g., Ackerley, Burnell, Holder, & Kurdek, 1988; Lee, Lim, Yang, & Lee, 2011; Rosenberg & Pace, 2006; Rupert & Kent, 2007; Rupert & Morgan, 2005; Rupert, Stevanovic, & Hunley 2009). Additionally, there is some evidence that the interaction of work and family demands (i.e., work-family conflict) is also a source of stress that relates to increased burnout (Rupert et al., 2009). On the other hand, resources such as control at work have consistently been shown to relate to decreased burnout (Ackerley et al., 1988; Lee et al., 2011; Rupert & Morgan, 2005; Rupert & Kent, 2007; Rupert et al. 2009).

Burnout may have many negative consequences for the client, workplace, and the individual psychologist. In his early explanation of the burned-out professional, Freudenberger (1975) noted the loss of motivation and commitment, negative attitude, and rigid thinking characteristic of the burned-out professional. Farber (1990) described the potential consequences of burnout as decreased work effectiveness, absenteeism, physical complaints, drug and alcohol abuse, interpersonal problems, irritability outside the office, and loss of belief in one's effectiveness. Job dissatisfaction, low work commitment, personal conflict, and poorer quality of work are other forms of negative responses to one's job that are associated with burnout (Maslach, 2007). In a longitudinal study of social workers, participants with higher initial levels of burnout later reported more physical health complaints and a faster decline in physical health over a one-year period (Kim, Ji, & Kao, 2011). Although burnout is considered a work-related phenomenon, it also has important implications for personal and family functioning (Farber, 1990; Maslach, 1976). If not adequately managed, long-term stress has the potential to not only impact an individual's physical and emotional health but also his or her functioning within social relationships.

In addition to burnout, the demands of becoming a psychologist and engaging in clinical practice have the potential to influence personality, behavior, and emotional functioning in more subtle ways that can negatively spillover into personal and family life (e.g., Guy, 1987; Mahoney, 1998; Zur, 1994). Although research has not established a link between the demands of psychological work and personal or family problems, there is evidence that psychologists experience such difficulties. In a survey of practicing psychotherapists conducted by Deutsch (1985), over three fourths of the sample noted

having relationship difficulties and the majority (57%) reported experiencing depression at some point in their lives. Pope and Tabachnick (1994) also found that a majority of psychologists (61%) reported experiencing an episode of what they would characterize as clinical depression. Mahoney's (1997) survey of psychotherapists found that over one-third had problems in intimate relationships, one out of eight expressed concerns about their alcohol consumption, and almost half reported episodes of irritability or emotional exhaustion. Similarly, Thoreson, Miller, and Krauskopf (1989) found that 10% of the psychologists reported frequent problems, including depression, relationship dissatisfaction, recurrent physical illness, alcohol problems, and loneliness. In a study by Pope and Tabachnick (1993), approximately 80% of psychologists reported that they experienced difficult emotions, such as anger, fear, and sexual feelings, in the context of their work. These studies indicate that many psychologists experience personal problems and distress over the course of their professional lifespan.

The distress experienced by psychologists may impair their professional functioning. In the literature, estimates of the incidence of impairment resulting from distress among health care professionals have ranged from 5-15% (Laliotas & Grayson, 1985). Among psychologists, Guy, Polestra, and Stark (1989) found that 74.3% of psychologists report experiencing personal distress during the last three years, with 36.7% indicating that this distress impacted the quality of care they provided. Likewise, Pope, Tabachnick, and Keith-Spiegel (1987) found that over 59.6% of psychologists reported working when, in their personal view, they were too distressed to be effective, even though 85.1% considered it unethical to do so. These studies suggest that

psychologists' experience of distress and impairment may impact quality of work and care for clients.

Professional Ethics and Self-Care

The potential for professional burnout and impairment is a serious concern that is addressed at the professional level by the American Psychological Association (APA). The Ethical Principles of Psychologists and Code of Conduct (APA, 2010) speaks directly to issues of distress and impairment in an effort to maintain the highest ethical ideals in the profession and protect the individuals with whom the psychologist works. Specifically, Standard 2.06 (Personal Problems and Conflicts) maintains:

 (a) Psychologists refrain from initiating an activity when they know or should know that there is a substantial likelihood that their personal problems will prevent them from performing their work-related activities in a competent manner.

(b) When psychologists become aware of personal problems that may interfere with their performing work-related duties adequately, they take appropriate measures, such as obtaining professional consultation or assistance, and determine whether they should limit, suspend, or terminate their work-related activities (APA, 2010, p. 5).

Psychologists need to maintain vigilance about stress and its physical and mental repercussions in order to ensure ethical behavior and provide competent treatment (Barnett, 2008). This ethical standard underscores the close relationship that exists between the personal and professional lives of psychologists.

Recognizing the stresses and challenges intrinsic to psychological work, the Board of Professional Affairs (BPA) of the American Psychological Association formed the Advisory Committee on Colleague Assistance (ACCA). The mission of the ACCA is

three-fold: to prevent and ameliorate professional distress and impairment and their consequences, to provide assistance and resources, and to thereby protect the public or the individuals with whom psychologists work (ACCA, 2006). The committee's stress-distress-impairment-improper behavior continuum offers an interactive model to help describe how work-related stress may contribute to impairment and improper behavior when not properly managed (ACCA, n.d.-b). According to the framework, when psychologists do not seek adequate support or manage personal reactions, stress can lead to distress and consequently impair a psychologist's thinking, mood, health, and professional functioning. Distress and impairment can then result in improper behavior, which crosses ethical boundaries and results in professional misconduct (Schoener, 1995). Being late for appointments or failing to return phone calls in a timely manner would constitute impairment while dual relationships or fiscal improprieties would constitute improper behavior (ACCA, n.d.-b; Wise, Hersh, & Gibson, 2011). Stress or even distress does not necessarily lead to impairment or improper behavior. Rather, it is stress and distress in the absence of effective stress management or appropriate coping strategies that leads to negative consequences. This model of stress to distress to impairment to improper behavior is described as a "slippery slope" in an effort to raise awareness of potential threats to personal and professional well-being and assist professionals when problems are easier to treat (ACCA, n.d.-b).

Until recently, most of the research and focus has been on stress and intervention for psychologists who are impaired and at risk for engaging in improper behavior.

Figure 1. Stress – Distress Continuum

Prevention   *Intervention*
↓   ↓
Stress----------Distress------------Impairment--------Improper Behavior

Instead of waiting for stress to pose a problem, from a positive psychology perspective, emphasis should be placed on prevention and thriving in the face of stress (Wise, Hersh, & Gibson, 2012). In keeping with this perspective, professional organizations are beginning to highlight the importance of work-life balance, self-assessment, self-care strategies, and consultation for practitioners in an effort to move from intervention to prevention (ACCA, n.d.-a.; ACCA, n.d.-b; Pearlman & Saakvitne, 1995; Salston & Figley, 2003). This shift in focus aims to foster professional competence and strengthen resilience rather than mitigate the consequences of impairment (ACCA, 2009).

Self-care has been proposed as a means of decreasing distress and increasing well-being through the promotion of healthy stress management techniques (Brucato & Neimeyer, 2009; Coster & Schwebel, 1997; Porter, 1995). Self-care serves as a means of empowerment by allowing psychologists and professionals to thrive in their personal and professional lives (Lee & Miller, 2013; Pope & Vasquez, 2005). The ACCA's presentation on self-care at the 2009 APA Convention noted that self-care promotes flourishing as it increases capacity for empathy, promotes self-compassion, and improves well-being.

As the field of psychology advances, the necessity of participating in self-care has also been identified as a central component of clinical training for graduate students (El-Ghoroury, Galper, Sawaqdeh, & Bufka, 2012; Rodolfa et al., 2005). Self-care strategies that reduce stress and promote a healthy, well-rounded lifestyle can be incorporated into

graduate education, training, and supervision in the effort to foster a "culture of self-care" (Barnett & Cooper, 2009, p.16). Ongoing, proactive efforts to ameliorate stress and promote psychological wellness are vital in every phase of a psychologist's careers, and self-care should be encouraged as an important aspect of daily living (Wise et al., 2012).

Self-Care: An Overview

Although there is an increasing emphasis on self-care, there has yet to be general consensus in the literature on the definition of the construct (Lee & Miller, 2013; Richards, Campenni, & Muse-Buke, 2010). While self-care may clearly refer to care of self, it also has been conceptualized as a movement (Gantz, 1990), process (Baker, 2003), set of principles or strategies (Orem, n.d), and ability (Collins, 2005). However, self-care is most commonly denoted as an involvement in certain activities to promote health, well-being, and stress relief (e.g., Brucato & Neimeyer, 2009; Jordan, 2010; Stebnicki, 2007). The definition and trends surrounding self-care have evolved over time with the current definition becoming more expansive to include physical, psychological, and emotional health.

Self-care activities or strategies have been theorized as lying across a continuum of functioning. On one end are behaviors that individuals with an illness or disability must engage in to manage sickness and prevent further harm. On the other end are activities that healthy individuals participate in to meet everyday needs and take a preventive approach to personal health (Godfrey et al., 2011). Depending on the context, the specific self-care goals may range from addressing basic needs or managing vital functions (Jordan, 2010) to promoting subjective happiness and "feel(ing) good" (Richards et al., 2010). Empirically supported self-care inventories, measures, and

checklists exist for individuals with compromised health or certain medical conditions, such as diabetes (e.g., Sousa, Hartman, Miller, & Carroll, 2009; Toobert & Glasgow, 1994), where self-care is conceptualized as the ability to manage symptoms. However, there has yet to be an empirically based and psychometrically supported measure of general self-care for professional populations.

While self-care behaviors aimed at managing a specific illness or disability are fairly straightforward and readily defined, self-care for the purpose of promoting personal and professional well-being is more difficult to define conceptually and operationalize. The conceptual definitions of self-care will also vary as a function of the population of interest, motivation behind the behaviors, and contextual backdrop in which the self-care occurs (Godfrey et al., 2011; Lee & Miller, 2013). For professionals, occupational demands and responsibilities additionally influence the definition of self-care and recommended strategies. Ultimately, in the absence of a comprehensive definition, it has been difficult to systematically measure and research the concept of self-care among professional psychologists.

Self-Care for Psychologists

Despite the lack of a definition, there is a growing literature offering resources, theories, and frameworks concerning self-care for psychologists. In one of the most comprehensive books regarding psychologists' self-care, Norcross & Guy (2007) presented a principle-based, flexible approach on *how* to carry out self-care. Their 12 principles of self-care involve: valuing the person of the psychotherapist, refocusing on the rewards of psychotherapeutic work, recognizing occupational hazards, minding the (physical) body, cultivating and nurturing supportive relationships in and outside the

office, setting boundaries between work and family life, restructuring maladaptive

cognitions, sustaining healthy escapes, creating a flourishing work environment,

undergoing personal psychotherapy, cultivating spirituality and mission, and fostering

creativity and growth (Norcross & Guy, 2007). These principles on how to carry out self-

care are based on a mix of spirituality, mindfulness, and positive psychology values as

well as cognitive behavioral therapy and physical wellness standards (Wise et al., 2012).

The principles recognize that attention to both personal and professional issues is critical

in maintaining awareness of potential hazards and implementing appropriate self-care

behaviors in and outside of the workplace. These 12 principles provide background and

guidance for conceptualizing self-care and for identifying self-care behaviors in personal

and professional life.

Other conceptualizations of self-care for psychologists group self-care behaviors

into general themes or categories. Baker (2003) conceptualized self-care as consisting of

three facets: self-awareness of one's physical and psychological experiences, self-

regulation of one's personal and professional reactions, and balancing of the connections

between self, others, and larger community. In an article on self-care for women

psychotherapists, Carroll, Gilroy, & Murra (1999) classified self-care behaviors into four

categories: intrapersonal work, interpersonal support, professional development and

support, and physical/recreational activities. In another categorical approach, the APA's

ACCA presented several slightly different frameworks for conceptualizing self-care for

psychologists. In the 2008 presentation, *Psychologists' pursuit of wellness across the life

span – Benefits and barriers to self-care practices*, self-care was described as the

integration of physical, cognitive, emotional, play, and spiritual elements. The 2009

ACCA presentation, *Who cares? Barriers, benefits and resources in colleague assistance and self-care,* divided self-care into emotional/ psychological, physical, spiritual, intellectual, relational/ social, and workplace/ professional components. In the 2010 ACCA presentation, *Listening to our colleagues: 2009 Practice survey – Worries, wellness, & wisdom*, the model of self-care was based on Williams-Nickelson's (2006) work on the psychological health of women. The seven areas of self-care included: physical, emotional spiritual, intellectual, social, relational, and safety and security.

In addition to discussions of areas of self-care, a considerable amount has been written about specific self-care behaviors for psychologists (e.g., ACCA, n.d.-c; Baker, 2003; Barnett, Baker, Elman, & Schoener, 2007; Norcross, 2000; Skovholt, Grier, & Hanson, 2001). For example, recommended self-care strategies include: seeking personal therapy, taking time for interpersonal relationships, creating variety in the workday, participating in extracurricular activities, and engaging with professional organizations (Coster & Schwebel, 1997; Norcross, 2000; Norcross & Guy, 2007). These behaviors are aimed at maintaining a balance between personal and professional lives and promoting mental, physical, and spiritual well-being (Baker, 2003; Goncher, Sherman, Barnett, & Haskins, 2013).

Ultimately, although many different self-care definitions and frameworks have been presented in the professional literature, several themes have emerged with some consistency: the importance of managing the stresses of professional work, the importance of maintaining a balance between personal and professional life, and the significance of taking care of oneself in both personal and professional life domains. These varied approaches to self-care have consistently included personal self-care

behaviors as well as professional self-care strategies in an effort to maintain functioning and foster well-being in both domains of life.

Lee and Miller (2013) offer a self-care conceptual framework for social workers that emphasizes personal self-care as distinct from professional self-care. Their model highlights the impact of work-related issues in personal life as well as the role of personal matters in the professional context. Personal self-care occurs outside the workplace and involves the participation in behaviors that foster holistic health and well-being. Personal self-care behaviors range from eating a well-balanced diet to seeking out fulfilling relationships. Professional self-care involves the engagement in practices that ensure balance and effectiveness in the professional role. Professional self-care behaviors range from taking breaks throughout the workday to maintaining regular contact with colleagues to attending to reactions at work.

According to Lee and Miller (2013), to foster professional self-care, personal self-care is required and to ensure personal self-care, professional self-care is needed. In the absence of adequate self-care in one domain, the other area is contingently affected. For example, the personal self-care behavior of getting at least six hours of sleep affects cognitive functioning, irrespective of environment. Alternatively, the professional self-care strategy of maintaining boundaries between work and family life impacts an individual's personal and family functioning. Lee and Miller (2013) propose that within the personal and professional self-care domains, there are also unique dimensions into which the specific self-care strategies can be categorized. Overall, the framework of taking into account both personal and professional self-care offers a meaningful and pragmatic way of understanding self-care in the context of professional psychologists and

allows for practical application within the field of psychology.

Empirical Studies on Self-Care

A limited body of research has examined self-care among psychologists. Consistent with the professional literature, studies have taken different approaches to assessing self-care; some have examined general areas or categories of self-care and others have examined specific self-care strategies or behaviors. Two studies have taken the categorical approach to researching self-care among psychologists. A study by Myers et al. (2011) examined the self-care of 488 psychology graduate students and defined self-care as the categories or groups of behaviors that have a negative relationship to stress when not effectively practiced. The self-care categories included sleep patterns, exercise behaviors, social support, emotion regulation strategies, and mindfulness practices. Psychologists' self-care was assessed using established measures of these five categories. The self-care categories that had a significant, negative relationship with perceived stress were sleep hygiene, emotion regulation, social support, and mindful acceptance. Another study examined whether mindfulness or self-awareness mediated the relationship between self-care and well-being among psychologists (Richards et al., 2010). The four areas of self-care explored in the study were based on previous research and included physical, psychological, spiritual, and support. Participants were asked to rate how often they were involved in and the importance of self-care behaviors in each of the four areas. Both the frequency and perceived importance of self-care were positively related to well-being. Additionally, mindfulness was found to be a significant mediator of the relationship between perceived self-care importance and well-being.

A series of studies have assessed self-care strategies that psychologists use to help

them function well at work (e.g., Coster & Schwebel, 1997; Goncher et. al, 2013; Kramen-Kahn & Hansen, 1998; Mahoney, 1997; Rupert & Kent, 2007; Stevanovic & Rupert, 2004). Employing different terms, including well-functioning strategies (Coster & Schwebel, 1997), career-sustaining behaviors (Kramen-Kahn & Hansen, 1998; Stevanovic & Rupert, 2004), and self-care strategies (Goncher et al., 2013; Mahoney, 1997), these studies have typically presented a list of strategies or behaviors and asked psychologists to rate the importance or frequency of participation in each self-care behavior. Items cover a range of behaviors, from strategies to maintain balance between personal and professional lives (e.g., engage in hobbies, spend time with friends) to spiritual activities (e.g., turn to spiritual activities, attend religious services) to cognitive strategies (e.g., maintain sense of humor, maintain professional identity and values). Additionally, these behaviors encompass both the personal (e.g., engage in physical activities, take time to be aware of my diet) and professional domains of life (e.g, perceive clients' problems as interesting, vary work responsibilities). Results of these studies have found that psychologists view many well-functioning strategies or career-sustaining behaviors as important for maintaining their professional well-functioning. For example, highly rated cognitive strategies included maintaining a sense of humor (Goncher et al., 2013; Kramen-Kahn & Hansen, 1998; Rupert & Kent, 2007; Stevanovic & Rupert, 2004), maintaining self-awareness or self-monitoring (Coster & Schwebel, 2007; Goncher et al., 2013; Rupert & Kent, 2007; Stevanovic & Rupert, 2004), and maintaining professional identity/values (Coster & Schwebel, 2007; Rupert & Kent, 2007; Stevanovic & Rupert, 2004). Relationships with others (Coster & Schwebel, 2007; Goncher et al., 2013; Kramen-Kahn & Hansen, 1998; Rupert & Kent, 2007; Stevanovic

& Rupert, 2004) and maintaining balance between personal and professional lives (Coster & Schwebel, 2007; Goncher et al., 2013; Kramen-Kahn & Hansen, 1998; Mahoney, 1997; Rupert & Kent, 2007; Stevanovic & Rupert, 2004) were also considered important career-sustaining behaviors.

For the most part, studies examining specific behaviors have simply asked respondents to rate the importance of self-care behaviors to their well-being. Two studies, however, have related self-care behaviors directly to burnout, with one study finding a significant relationship between the use of career-sustaining behaviors and burnout (Rupert & Kent, 2007). Psychologists who participated in internal, cognitive strategies (e.g., reflect on satisfying experiences of work, maintain self-awareness/self-monitoring) and external, behaviorally focused strategies (e.g., maintain a balance between personal and professional lives, engage in hobbies) reported less emotional exhaustion, less depersonalization of clients, and a greater sense of personal accomplishment. On the other hand, another study investigating the relationship between self-care behaviors and burnout reported mixed findings. Some career-sustaining behaviors (e.g., maintaining a sense of humor and engaging in physical activity) were related to lower levels of burnout whereas other behaviors (e.g., participating in personal therapy and putting aside thoughts of clients outside of work) were related to higher levels of burnout (Di Benedetto & Swadling, 2013).

Finally, other research has provided evidence for the importance of self-care behaviors. In a study examining predictors of career satisfaction, Rupert, Miller, Hartman, and Bryant (2012) reported that high ratings on the importance of several career-sustaining behaviors, such as keeping a work–life balance and practicing cognitive

strategies for coping with work demands, were associated with greater career satisfaction. Stevanovic and Rupert (2004) found that psychologists who are highly satisfied with their work participated in a significantly greater number of career-sustaining behaviors as compared to those with lower satisfaction. In addition to the limited body of research among psychologists, studies have examined specific physical and psychological outcomes of self-care in other populations. Areas of self-care, such as physical exercise, nutrition, sleep, and mindfulness, have been linked to improvements in physical and mental health across a wide variety of settings (e.g., Brown & Ryan, 2003; Eberhardie, 2007; Fleshner, 2005; Neubauer, 2010).

Taken together, this research indicates that psychologists engage in self-care practices and view them as important to their functioning. There is some limited evidence that self-care does relate to positive outcomes. More research, however, is needed on the role of self-care in the professional life and functioning of psychologists. Studies involving the relationship between self-care and other variables such as work performance and therapeutic effectiveness would be valuable in offering empirically based, practical suggestions for psychologists. However, in the absence of an empirically established measure of self-care, the construct has yet to be systematically studied. Defining and operationalizing the self-care construct though creation of an instrument would help in guiding policy, enriching clinical practice, and enhancing research studies. A measure of self-care is critical for future research and for offering empirically based, practical suggestions for psychologists.

Developing the Measure: Construct Definition of Self-Care

The primary purpose of the present research was to develop a valid, reliable measure of self-care for professional psychologists. The guidelines for scale development offered by DeVellis (2012) were followed in the creation of the scale; specifically, the steps included: clear and specific description of the construct of interest, generation of an item pool, expert review of the initial items, finalization of validation items or measures, administration of the selected items to a developmental sample, statistical evaluation of the items, and determination of optimal scale length for use in future studies. A conceptual definition guides the development of items and thus lays the foundation for developing items that adequately assess all aspects of the construct. Drawing from the self-care literature, this section describes the definition of self-care that was developed for this measure development project. Item development, expert evaluation of items, and the initial analysis and validation of the scale are discussed further in the present project section of this chapter.

Based on a review of the literature, the conceptual definition of self-care involves the following key components: *multi-dimensional and multi-faceted; process of purposeful engagement;* and *promotion of healthy functioning and enhancement of well-being.*

Self-care is *multi-dimensional* and *multi-faceted* as it involves many areas and dimensions of personal and professional life (Godfrey et al., 2011). No single self-care strategy will ameliorate all stress. Rather, it is the focus on a broad variety of strategies across the different areas of life that is important (Norcross & Guy, 2007). The selection of and engagement in specific self-care behaviors across the personal and professional

domains should reflect the individual's belief system, personality, social and cultural background, and home and work environment as well as the available strategies or resources (National Association of Social Workers, 2009).

Further, self-care is the *process* of *purposeful* engagement in that it contains an intentionality component. Self-care is *purposeful* as it involves an adherence to a personal self-care plan while being flexible and responsive to how the plan and behaviors may evolve (Godfrey et al., 2011; Lee & Miller, 2013; Moore, Bledsoe, Perry, & Robinson, 2011; Wise et al., 2011). Self-care is also a *process* in that it describes an active, ongoing endeavor rather than a static or one-time undertaking. *Purposeful* self-care requires *continuous* self-reflection and self-awareness of one's changing needs, experiences, and values, which enables self-care to become a sustainable and enduring practice (Coster & Schwebel, 1997; Norcross, 2000; Skovholt et al., 2001).

The goal of self-care is the *promotion of healthy functioning and enhancement of well-being*. In the context of helping professionals, the goal of self-care is not only to ensure and promote care of a person's body, mind, and spirit (Baker, 2003; Orem, n.d) and maintain resilience in the face of stress, but also to flourish in personal and professional life (Wise et al., 2011). Focus on thriving and flourishing allows for more personal and professional growth and increases emphasis on positive emotions and well-being (Keyes, 2002).

Incorporating these key components, the present study adopted the general conceptual framework of Lee and Miller (2013) that divides self-care behaviors into personal and professional domains (see Figure 2). The dimensions within personal self-care were identified based on the general categories of self-care behaviors discussed in

the conceptual literature as important for personal well-being. The five critical

dimensions that comprise personal self-care include *physical, psychological, spiritual,*

social, and recreational (e.g., Baker, 2003; O'Halloran & Linton, 2000; Richards et al.,

2010). In regards to professional self-care, the dimensions were conceptualized based on

the demands inherent in the field and strategies that can be employed at the workplace to

appropriately and effectively aid in fostering well-being. The four dimensions of

professional self-care framework include *psychological, social, work-life balance, and*

developmental (Coster & Schwebel, 1997; Elman, Illfelder-Kaye, & Robiner, 2005; Lee

& Miller, 2011; Norcross & Guy, 2007).

In total, self-care will be defined as:

> *A multi-dimensional, multi-faceted process of purposeful engagement in*
>
> *strategies that promote healthy functioning and enhance well-being. The personal*
>
> *self-care strategies include activities in the physical, psychological, spiritual,*
>
> *social, and recreational dimensions of experience. The professional self-care*
>
> *strategies include behaviors in the psychological, social, work-life balance, and*
>
> *developmental dimensions of experience.*

Figure 2. Self-Care Framework
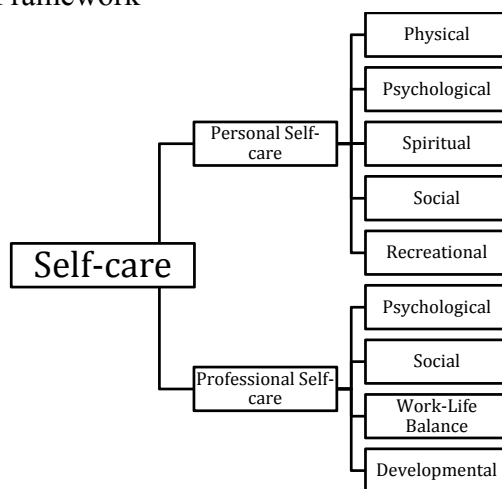
Dimensions of personal self-care. The *physical* dimension of self-care entails

care of the physical self and incorporates strategies to optimize physical function and

safety. The behaviors in the physical dimension of self-care promote a healthy physical

body through proper/appropriate physical activity, sleep, nutrition, and health

responsibility as well as avoidance of irresponsible substance use. Physical activity or

regular moderate exercise has been associated with greater emotional well-being,

decreased anxiety and depressive symptoms, lower stress, and healthier physical and

immune functioning (e.g., Callaghan, 2004; Fleshner, 2005, Lustyk et al., 2004). Sleep is

similarly important as sleep deprivation results in daytime sleepiness, cognitive

impairment, emotion dysregulation, and greater risk for a variety of health problems (e.g.,

McGlinchey et al., 2011; Neubauer, 2010). Nutrition is critical to physical self-care as it

not only affects physical energy and strength, but also mood, behavior, and well-being

(e.g., Ardell, 1986; Eberhardie, 2007; Lemaire et al., 2010). Health responsibility

involves attending to and accepting responsibility for one's personal health. Being

proactive in one's healthcare helps to preserve functioning and wellness (e.g., Ardell

1986; Lee & Loke, 2005; Walker, Sechrist, & Pender, 1987). Lastly, irresponsible substance use can interfere with the development and maintenance of professional competency and compromise other self-care efforts for professionals (Good, Thoreson, & Shaughnessy, 1995; Thoreson, Budd, & Krauskopf, 1986).

The *psychological* dimension of personal self-care encompasses emotional and cognitive strategies to maintain a positive and compassionate view of the self, negotiate external demands with internal expectations, and identify, accept, and express a range of emotions (Rose & Glass, 2010). Psychological self-care strategies, such as emotion regulation, stress management, and mindfulness, are designed to reframe maladaptive cognitions and promote adaptive emotions and behaviors. Research has consistently supported the importance of these types of psychological self-care strategies for overall well-being. For example, healthy emotion regulation is associated with lower stress-related symptoms (Moore, Zoellner, & Mollenholt, 2007), and proactive stress management is shown to help control or decrease anxiety (Antonovsky, 1987; Ardell, 1986). Mindfulness is "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003). Mindfulness practices are associated with lower overall stress and improved quality of life in a variety of populations (Brown & Ryan, 2003; Greeson, 2009).

The concept of *spiritual* self-care most commonly entails searching for meaning and purpose in life, which may or may not be related to religion (Tanyi, 2002). Spirituality focuses on the connection to self-chosen and/or religious beliefs, values, and practices that gives meaning to life (Estanek, 2006; Hage, 2006; Perrone, Webb, Wright,

Jackson, & Ksiazak, 2006). Individuals endorsing greater spirituality or spiritual well-being report better overall physical and mental health, which reflects on its potential significance as part of self-care (e.g. Boero et al., 2005; Brown, Carney, Parrish, & Kelm, 2013; Wong, Rew, & Slaikeu, 2006).

The *social* dimension of personal self-care involves strategies to build meaningful, positive relationships and to develop a sense of connection, belonging, and support. Interpersonal relationships with family, friends, and the community can offer nurturance and support outside the psychotherapy practice (Guy, 2000; Norcross & Guy, 2007). Interpersonal relationships and social support systems decrease stress and increase well-being and happiness (Schwarzer & Leppin, 1991; Walen & Lachman, 2000).

The *recreational* or *leisure* dimension of self-care encourages participation in enjoyable activities that promote relaxation, rejuvenation or encourage creativity (Carroll et al., 1999; Lee & Miller, 2013). Having a life and hobbies outside of work is vital for overall self-care and well-being (Patsiopoulos & Buchanan, 2011). Psychologists' participation in recreational and extracurricular activities can decrease the risk of burnout in this professional population (Hoeksma, Guy, Brown, & Brady, 1993).

Dimensions of professional self-care. Professional self-care includes the psychological, social, work-life balance, and developmental dimensions of professional experience. The *psychological* dimension of professional self-care refers to strategies that provide resilience in the face of workplace stress and help to maintain emotional and cognitive stability. Adaptive, positive cognitive strategies are critical to keep work demands in perspective and to avoid becoming overwhelmed by the demands of psychological work (Rupert & Kent, 2007; Rupert et al., 2012). For example, research

has found that maintaining professional identity and values is a highly rated, internally focused work strategy to "function effectively and maintain a positive attitude" (Coster & Schwebel, 2007; Rupert & Kent, 2007; Rupert et al., 2012; Stevanovic & Rupert, 2004). Similarly, a meta-analysis by Lee et al. (2011) found a sense of professional identity to be significantly correlated to all three dimensions of burnout. Maintaining a sense of control over work responsibilities, perceiving clients' problems as interesting, and maintaining objectivity about clients have all been reported as important cognitive strategies for keeping perspective on one's work (Kramen-Kahn & Hansen, 1998; Rupert & Kent, 2007; Stevanovic & Rupert, 2004).

The *social* dimension of professional self-care encompasses strategies to foster interpersonal support in the workplace. Coworkers, colleagues, and supervisors can all serve as sources of support in the professional sphere. Through providing a sense of community, learning about practice management, and sharing challenging cases and emotions, a professional support system offers the opportunity to discuss stressors and ensure thriving in and outside the workplace. Considering the relationship between support and burnout among psychologists, workplace support has been consistently related to an increased sense of personal accomplishment (e.g., Ackerley et al., 1988; Huebner, 1994; Lee et al., 2011; Rupert & Kent, 2007). Psychologists endorse individual, peer, and group supervision as well as occasional consultation as being important in helping deal with difficult emotions and ensuring well-functioning (Coster & Schwebel, 1997; Mahoney 1997).

The *work-life balance* dimension of professional self-care includes behaviors to create a positive and supportive work environment, to manage work and time pressures,

and to maintain boundaries between work and family life. In terms of the work environment, psychologists should initially make an effort to find an appropriate person-environment fit as a greater mismatch between person and environment is correlated with a greater likelihood of stress (Maslach & Goldberg, 1998). Once established in the workplace, professionals should also strive to adapt to the environment and advocate for change, when necessary (Lee & Miller, 2013). Workload and time management strategies are essential for efficient and successful practice management and for handling paperwork, caseload, and time demands (APA Practice Directorate, 1994; Lowman & Resnick, 1994; Pipal, 1995). Finally, establishing boundaries between work and other areas of life and "leaving it at the office" (Norcross & Guy, 2007) are critical strategies to achieve balance between work and family life. Maintaining effective boundaries has been consistently endorsed as a commonly employed, effective self-care strategy for psychologists (Bridgeman & Garber, 2010; Kramen-Hahn & Hansen, 1998; Norcross & Guy, 2007; Rupert & Kent, 2007; Stevanovic & Rupert, 2004).

Professional self-care includes a *developmental* dimension that encompasses strategies to advance professional life, skills, and knowledge as well as promote a sense of passion, engagement, and purpose in work. In a variety of ways, the professional literature highlights the importance of continuing education and professional development. Lee and Miller (2013) emphasize the importance of professional development (e.g., participation in meetings and organizations) as well as the revitalization and generation of energy at work (e.g., seeking new challenges and creating a pleasant workspace). To date, not a lot of research has been done on the role of professional development and the limited findings have been somewhat mixed. Kramen-

Kahn and Hansen (1998) and Stevanovic and Rupert (2004) found that opportunities such as continuing education provide the chance for professional growth and that more satisfied psychologists report greater participation in continuing education. Rupert and Kent (2007), however, did not find a relationship between participation in continuing education and burnout. Additionally, Rupert and Kent (2007) and Stevanovic and Rupert (2004) found that varying work responsibilities is an important work-related career-sustaining behavior for psychologists. Professionals that continue to develop themselves and their knowledge over the professional lifespan will find more meaning in work and strengthen protective strategies that serve in the face of stress.

The Present Project

The present project involved a preliminary item development phase followed by the primary study focused on item analysis and initial validation of the Personal and Professional Self-Care Scale. To continue the scale development procedure as presented by DeVellis (2012), the item development phase included item generation, content validation by experts, and subsequent revision of the item pool. The primary study then involved the administration of the item pool and validation measures to a developmental sample, statistical analyses of the items, appropriate reliability and validity analyses, and determination of optimal scale length for use in future studies.

Specific aim 1: Preliminary phase. The aim of the preliminary project was to generate items based on the construct definition and use the experts' responses and recommendations to develop a group of items for further testing in the validation phase. In order to ensure the content validity of the measure, the goal was for the items to be clear and representative of the self-care construct.

Specific aim 2: Primary study. The aim of the validation study was to empirically evaluate the items, the factor structure, the reliability, and the validity of the self-care scale.

In the primary study, a number of hypotheses were tested that related to the factor structure and the validity of the self-care scale. In terms of factor structure, the self-care construct definition and proposed framework conceptualized self-care strategies as falling into two separate life domains: personal life and professional life. Items were developed to represent behaviors specific to and representative of these domains. Consequently, hypothesis one of the present study predicted a two-factor structure reflecting these domains.

Hypothesis 1. It was expected that the Personal and Professional Self-Care Scale would have two separate, but correlated, self-care factors, personal and professional self-care. Therefore, it was hypothesized that a two-factor model would fit the data significantly better than alternative factor models. Additionally, these two factors or subscales were expected correlate imperfectly with one another, indicating that they are distinct domains or factors.

In regards to the validity of the self-care scale, construct validity, whether a measure actually assesses the conceptual variable of interest (Bryant, 2000), was evaluated through examining the convergent and discriminant validity of the scale. Convergent validity concerns the extent to which one measure of a construct is associated with another measure of the same underlying construct (Bryant, King, & Smart, 2007). At this point, no well-accepted, validated measure of self-care or measures of theoretically similar constructs exist to serve as a measure of convergent validity.

However, based on the theoretical literature, it was expected that self-care would relate to one's level of stress, life satisfaction, professional burnout, and health. Therefore, the convergent validity of the measure was assessed through evaluation of the relationship between self-care and the aforementioned variables. Four items adapted from Richards et al. (2010) were also used to evaluate participants' self-care and thus served as an additional measure of convergent validity. Discriminant validity refers to the extent to which one measure of a construct diverges from another measure of a separate construct (Bryant et al., 2007). Discriminant validity was assessed through evaluation of self-care in relation to social desirability. The nomological validity was investigated by examining the pattern of correlations between self-care and the other construct validity measures with the expectation that the measures of convergent validity would correlate more strongly than the measure of discriminant validity. The following hypotheses were tested.

Hypothesis 2. It was hypothesized that the factor subscale scores would be negatively correlated with the Perceived Stress Scale (PSS). Given that self-care is endorsed as a means to reduce distress, it was expected that greater participation in self-care would be related to lower perceived stress.

Hypothesis 3. It was expected that the factor subscale scores would be positively correlated with the Satisfaction with Life Scale (SWLS). As self-care is endorsed as a means of promoting well-being, it was expected that greater participation in self-care would be related to greater satisfaction with life.

Hypothesis 4. It was hypothesized that the factor subscale scores would be significantly correlated with all three subscales of the Maslach Burnout Inventory - Human Services Survey (MBI-HSS): negatively correlated to emotional exhaustion,

negatively correlated with depersonalization of clients, and positively correlated with a sense of personal accomplishment. As burnout is a potential consequence of stress and distress, it was expected that increased self-care, a means of ameliorating distress, would be associated with lower levels of burnout as reflected by lower emotional exhaustion and depersonalization and a greater sense of personal accomplishment.

Hypothesis 5. It was hypothesized that the factor subscale scores would be negatively correlated with days of physical illness during the past month, negatively correlated with days of poor mental health during the past month, and negatively correlated with days of illness that interfered with one's usual activities. Past research has indicated that participation in certain self-care behaviors is related to positive physical and emotional health, and it was expected that individuals who engaged in self-care would report fewer days of poor physical and mental health.

Hypothesis 6. It was expected that the factor subscale scores would be positively correlated with the total score on four items designed to measure participation in self-care.

Hypothesis 7. In regards to discriminant validity, it was expected that the factor subscale scores would not have a significant correlation with a short form of the Marlowe-Crowne Social Desirability Scale. Self-care should be distinct from social desirability and the two concepts should not have too strong of a correlation.

Hypothesis 8. It was hypothesized that the measures of convergent validity would have a significantly stronger correlation with the factor subscale scores than the discriminant validity measure**.**

The ultimate goal of the study was to create a comprehensive, empirically derived, and psychometrically sound self-care measure for professional psychologists: the Personal and Professional Self-Care Scale through examining the factor structure, reliability, and validity of the scale.

CHAPTER TWO

ITEM DEVELOPMENT

Item Generation

The preliminary phase consisted of generating items, with subsequent content

evaluation by experts and finalization of the item pool. The following self-care definition

was used for the purposes of the initial item generation phase: *a multi-dimensional, multi-*

faceted process of purposeful engagement in strategies that promote healthy functioning

and enhance well-being. Using this definition and descriptions of each personal and

professional dimension as a guide, items were created based on the empirical literature,

relevant theories, consultation with experts and target population, examination of related

instruments, and rational deduction, as recommended by Holmbeck and Devine (2009).

Items developed from related instruments included measures assessing career-sustaining

behaviors or well-functioning strategies for professionals, measures examining the

individual dimensions of self-care (e.g., sleep measures, measures of emotional

functioning, etc.), and recommendations of self-care strategies for professional

psychologists.

In regards to the number of items, DeVellis (2012) notes that it is impossible to

specify the number of items in the initial item pool. However, with a greater number of

items, there is a greater probability of strong inter-item correlations and strong internal

consistency. With the final goal of having a measure of approximately 20-30 items, 80

items were generated for expert evaluation with an equal number of items being generated in the personal and professional self-care domains. Within the personal and professional domains, the number of items in each specific dimension varied depending on the complexity and breadth of the dimension. For the personal domain, the physical self-care dimension had 15 items, the psychological dimension had 11 items, the spiritual dimension had four items, the social dimension had five items, and the recreational dimension had five items. For the professional domain, the psychological dimension had 11 items, the social dimension had seven items, the work-life balance dimension had 15 items, and the developmental dimension had seven items.

For the item format, a seven-point, Likert-type scale was employed, as it is one of the most commonly used response formats. A seven-point response scale allows for a greater number of responses and a greater opportunity for discrimination between responses as compared to a five-point scale. The end points of the scale were labeled from 1 (never) and 7 (almost always).

Content validity, the degree to which an instrument assesses all appropriate aspects of a construct, is critical to ensuring the comprehensiveness of a measure and the accuracy of actual meaning (Bryant, 2000). Items were constructed to maximize content validity, align with the presented definition and framework, and differentiate between high and low levels of self-care. Expert evaluation also served to strengthen the measure's content validity.

Expert Evaluation

Following the item generation phase, the content validation by experts adhered to the recommended guidelines provided by Haynes, Richard, and Kubany (1995). Ten

experts in the areas of self-care, professional functioning, and professional well-being were identified and contacted via email. The experts were doctoral level psychologists with relevant publications or presentations in the field. The experts' professional activities ranged from engaging in clinical practice to conducting continuing education courses regarding self-care to researching areas related to self-care. The experts simultaneously functioned as both authorities in the field and as members of the target population.

The 10 experts were sent an email that described the self-care scale development project and asked if they would be willing to provide an evaluation of potential items. Four experts agreed to participate and were sent an evaluation form (see Appendix A for a copy of this form). The evaluation form first presented the self-care definition and framework to be considered for purposes of the evaluation. The experts were then instructed on how to evaluate the items and told that they would have the opportunity to make general comments on the self-care dimensions, the directions for participants, and the scaling method. Following the directions, the evaluation form presented the definition of each dimension along with the corresponding self-care items for that personal or professional self-care dimension. For each item in the dimension, experts were asked to evaluate the items' clarity and relevance, indicate whether to include the item in the final scale, and comment or offer suggestions on the items. The clarity and relevance were scored using a seven-point scale with only the endpoints labeled: 1 (not at all clear/ relevant) and 7 (extremely clear/relevant). For the inclusion question, the experts were asked to mark yes/no as to whether to incorporate the item in the final scale. Finally, experts were invited to comment on the individual items as they saw fit, to note awkward

or confusing items, to suggest alternative statements, and to offer additional items. This process allowed problematic wording to be modified and allowed for a better quality of items. In addition to revising items for clarity, a central goal of the expert evaluation was to reduce the initial pool of 80 items to approximately 50 items for administration to a validation sample.

Three experts completed the rating and feedback form and the fourth expert provided general comments about the project. The preliminary phase systematically reviewed the experts' responses and made changes based on their ratings and written feedback. Items with a mean clarity or relevance rating below four were modified or deleted. Additionally, items marked "no" for inclusion by the majority of experts were also eliminated. Items with the strongest ratings on clarity and relevance and items that maximized content validity were retained. Ultimately, based on the expert feedback, principles of scale construction, and informal feedback from psychologists and graduate students at Loyola University Chicago, the 80 items were reduced to 52 items (26 personal items and 26 professional items) for administration to the validation sample in the primary study that is described in the remaining chapters. These items are listed in Table 1 that is included in the Materials section of Chapter Three.

CHAPTER THREE

METHOD

Participants

        Participants were a random sample of licensed clinical psychologists in Illinois. Names and mailing addresses for approximately 5,000 psychologists were obtained from the Illinois Department of Financial & Professional Regulation. The literature has noted that sample sizes of 300 are considered sufficient or adequate in the majority of cases to conduct the proper exploratory statistical analysis (Comrey & Lee 1992, Nunnally, 1978; Tinsley & Tinsley, 1987; Thompson, 2004). To ensure an adequate sample size, 1,500 psychologists were randomly selected from the mailing list to receive the survey. Seventeen of the 1,500 surveys were returned as undeliverable. Overall, 438 psychologists returned the surveys for a 29.5% response rate. Twelve participants indicated that they were retired, two participants noted that they no longer engaged in clinical practice and returned unanswered surveys, and two participants did not complete any of the self-care items. These sixteen surveys were not included in the current study. The final sample of 422 participants consisted of 126 men (29.9%) and 295 (69.9%) women, with one respondent failing to report his or her gender. The majority of the sample was White (87.2%), with Asian psychologists (2.1%), Latino/Latino psychologists (2.1%), Black or African American psychologists (4.7%), and psychologists of other racial backgrounds (1.1%) also represented. In regards to marital

status, 69.2% were married/partnered, 6.8% were in a committed partnership, 12.3% were single, and 7.3% were divorced. While the majority of participants (63.3%) had children, only 40.7% of the participants had at least one child living at home. In terms of work setting, 33.6% were in solo private practice, 19.0% were in group private practice, 13.7% were in a hospital setting, 1.9% were in a community center, 9.7% were in an outpatient clinic, and 21.8% marked other (responses ranged from school to correctional facilities). The mean age of respondents was 50.48 years ($SD = 14.50$), the mean years since licensure was 16.71 years ($SD = 12.39$ years), and the mean number of hours worked per week in primary and secondary settings was 44.13 hours ($SD = 14.38$ hours).

Procedure

Loyola University Chicago's Institutional Review Board approved the study with exemption. The randomly selected sample of Illinois licensed psychologists was first sent a pre-notification postcard in March 2015, notifying them to expect a survey regarding professional well-being and self-care. A packet containing a cover letter, survey entitled "Professional Self-Care and Well-Being Survey," and prepaid return envelope was sent one week later. The cover letter explained the purpose of the survey and provided information necessary for informed consent. Specifically, the cover letter explained that the survey was completely anonymous, that participation was voluntary, that they could choose to skip any items or stop at any time, and that the data would be securely stored and used only for scholarly purposes. Psychologists willing to participate were instructed to complete the survey and return it in the prepaid envelope. Two weeks after the survey, a reminder postcard was sent to all psychologists in the sample to increase response rate and to provide potential participants with the opportunity to request another copy.

The Survey Measures

The survey included questions designed to gather personal and professional demographic information and the Personal and Professional Self-Care Scale, which was the focus of the present study. In addition, to evaluate the validity of the self-care, measures of the following constructs were included: perceived stress, life satisfaction, burnout, physical and mental illness, frequency of participation in areas of self-care, and social desirability.

Demographics. Participants reported demographic information, including: age, gender, marital status, number of children, number of children living at home, racial/ethnic background, primary specialty area, years since licensure, primary and secondary work setting, hours worked in primary and secondary work setting, and hours in different work activities (e.g., hours in therapy/ intervention; hours in testing/ assessment, hours in paperwork/ administrative tasks).

Personal and professional self-care scale. The scale was developed in the preliminary item development phase of this project as described in Chapter Two. The scale contained 52 items, 26 personal self-care items and 26 professional self-care items, encompassing the nine dimensions within personal and professional self-care. In order to ensure that the item responses were independent, the items were randomized so that no two personal or professional self-care items directly followed one another. Table 1 presents the scale items, indicates the personal or professional domain, and specifies the personal or professional dimension represented by each item.

In the scale, self-care was assessed by asking participants to evaluate the frequency with which they engage in the stated behaviors. The items were answered on a

seven-point scale with the two endpoints labeled: 1 (never) and 7 (almost always), with

higher scores indicating a greater frequency of participation. The frequency of

participation allowed for more of an objective approach to self-care participation rather

than assessing the psychologists' perceptions of the importance of various self-care

strategies.

Table 1. Personal and Professional Self-Care Items

Item	Domain - Dimension
1. I find ways to foster a sense of social connection and belonging in my life.	Personal – Social
2. I monitor my feelings and reactions to clients.	Professional – Psychological
3. I find ways to enhance a sense of purpose in my life.)	Personal – Spiritual
4. I avoid over-commitment to work responsibilities.	Professional – Work-life balance
5. I take time to "smell the roses," to appreciate and be fully in the present moment.	Personal – Psychological
6. I participate in activities that promote my professional development.	Professional – Developmental
7. I make a conscious effort to appreciate positive things in my life.	Personal – Psychological
8. I take part in work-related social and community events.	Professional – Social
9. I see a doctor or other medical professional when I have health concerns.	Personal – Physical
10. I set limits on the number of high-risk clients I see.	Professional – Psychological
11. I spend time with people whose company I enjoy.	Personal – Recreational
12. I connect with organizations in my professional community that are important to me.	Professional – Developmental
13. I make time to engage in leisure activities regardless of my workload.	Personal – Recreational
14. I maintain a professional support system.	Professional – Social
15. I share my feelings with others during stressful times in my life.	Personal- Psychological
16. I plan my work activities to include activities that interest me.	Professional – Work-life balance
17. I spend time with family or friends.	Personal – Social
18. I try to not let my work interfere with my family or personal life.	Professional – Work-life balance
19. I make an effort to get enough sleep each night.	Personal – Physical
20. I try not to take the ups and down of my work too personally.	Professional – Psychological

21. I participate in physical activity, such as stretching, aerobic activity or strength conditioning.	Personal – Physical
22. I seek consultation or supervision when professionally challenged.	Professional – Developmental
23. I share my feelings with people close to me.	Personal – Psychological
24. I take regular vacations.	Professional – Work-life balance
25. I take extra time to rest when I am not feeling well.	Personal – Physical
26. I share positive work experiences with colleagues.	Professional – Social
27. I seek guidance or counseling when necessary.	Personal – Psychological
28. I make adjustments to reduce my workload in the face of professional stressors.	Professional – Work-life balance
29. I monitor my substance use to ensure that it does not interfere with my functioning.	Personal – Physical
30. I share work-related stressors with trusted colleagues.	Professional – Social
31. I use my sense of humor to keep things in perspective.	Personal – Psychological
32. I avoid workplace isolation. (professional, social self-care)	Professional – Social
33. I try to avoid excessive use of alcohol, tobacco, and other substances.	Personal – Physical
34. I am mindful of triggers that increase professional stress.	Professional – Psychological
35. I spend time in prayer, personal reflection, or some type of spiritual activity.	Personal – Spiritual
36. I maintain a balance between personal and professional life.	Professional – Work-life balance
37. I take time for recreational or leisure activities.	Personal – Recreational
38. I take time to reflect on the satisfying experiences of work.	Professional – Psychological
39. I make physical activity part of my regular routine.	Personal – Physical
40. I make a proactive effort to manage the challenges of my professional work.	Professional – Psychological
41. I consume a healthy balance of fruits, vegetables, grain, fats, and protein.	Personal – Physical
42. I find ways to stay current in professional knowledge.	Professional – Developmental
43. I seek out activities or people that are comforting to me.	Personal – Social
44. I maximize time in professional activities I enjoy.	Professional – Work-life balance
45. I try to be aware of my feelings and needs.	Personal – Psychological
46. I maintain appropriate professional boundaries with my clients.	Professional – Work-life balance
47. I eat a balanced and healthy diet.	Personal – Physical
48. I cultivate professional relationships with my colleagues.	Professional – Social
49. I take some time for relaxation each day.	Personal – Psychological

50. I take breaks throughout the workday.	Professional – Work-life balance
51. I get at least 6 hours of sleep each night.	Personal – Physical
52. I delegate or simplify the business aspects of my practice when possible.	Professional – Work-life balance

Perceived stress. The Perceived Stress Scale (PSS; Cohen, Kamarck, &

Mermelstein, 1983) is a 10-item measure designed to assess individuals' perceived stress,

conceptualized as the degree to which situations in an individual's life are perceived as

unpredictable, uncontrollable, and overwhelming. The PSS is a widely used

psychological measure of stress. Items asked about perceived stress in the last month, and

responses were scored on a five-point scale: 0 (never) to 4 (very often), with higher

scores indicating higher perceived stress. Sample items include, "In the last month, how

often have you felt that you were unable to control important things in your life" and "In

the last month, how often have you felt nervous and stressed." The PSS has significant

correlations with life satisfaction, alcohol use, and other health-related outcomes (Cohen

& Williamson, 1987). Original, two-day test–retest reliability has been reported as $r = .85$

and six-week test-retest reliability as $r = .55$ (Cohen et al., 1983). Cronbach's alpha has

been reported as $r = .91$ (Cohen & Janicki-Deverts, 2012). This scale also yielded good

internal consistency in the current study ($\alpha = .86$).

Life satisfaction. The Satisfaction with Life Scale (SWLS; Diener, Emmons,

Larsen, & Griffin, 1985) is a five-item measure designed to assess the life satisfaction

component of subjective well-being. Extensive evidence has found that an individual's

satisfaction with life score positively correlates with a range of life outcomes, including

mental and physical health (Pavot & Diener, 2008). Responses were scored on a seven-

point scale: 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating

greater life satisfaction. Sample items include, "In most ways, my life is close to my

ideal" and "The conditions of my life are excellent." One-month test–retest reliability for

the SWLS has been reported as $r = .84$ with Cronbach's alpha ranging from $r = .79$ to $.89$

(Pavot & Diener, 2008). This scale yielded good internal consistency in the current study

($\alpha = .87$).

Burnout. The Maslach Burnout Inventory- Human Service Survey (MBI-HSS;

Maslach, Jackson, & Leiter, 1996) is a 22-item measure, which assesses the three

components of burnout: emotional exhaustion, depersonalization, and a reduced sense of

personal accomplishment. The MBI-HSS was chosen as it is the most widely employed

measure of burnout among human service professionals and was hypothesized to have a

negative relationship with self-care. The items pertained to work-related thoughts or

feelings and were scored on a seven-point scale: 0 (never) to 6 (everyday) with higher

scores indicating higher frequency of feelings. Sample items include, "I feel used up at

the end of the workday" and "I feel burned out from work." The MBI-HSS has

consistently reported sound psychometric properties, which are summarized extensively

in the most recent manual (Maslach, Jackson, & Leiter, 1996). In the current study, the

internal consistency for the emotional exhaustion subscale was good ($\alpha = .89$), for the

depersonalization subscale was adequate ($\alpha = .71$), and for the personal accomplishment

subscale was adequate ($\alpha = .73$).

Physical and mental health/illness. Physical and mental functioning were

measured by asking participants to answer the following questions, "Thinking about your

physical health, which includes physical illness and injury, for how many days during the

past 30 days was your physical health not good?" "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" and "During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?" Responses ranged from 0-30 with a greater number of days indicating more days of poor physical or mental health or more days of illness preventing participation in usual activities. These questions were adapted from the annual Behavioral Risk Factor Surveillance System Questionnaire section on health-related quality of life (CDC, 2011).

Additional self-care measure. Four items, adapted from Richards et al. (2010), assessed four areas of self-care. Participants were first given a broad definition of self-care ("Self-care refers to any activity that one does to feel good about oneself. It can be categorized into four groups which include: physical, psychological, spiritual, and support"). Participants were then asked to indicate how often they participated in self-care behaviors in each of the four areas. Responses were scored on a seven-point scale ranging from 1 (never) to 7 (one or more times daily). Although the intent was to total the items to provide an index of self-care, the poor internal consistency ($\alpha = .43$) indicated that this was not appropriate. Thus, this measure was not included in the validity analyses.

Social desirability. A short form (10 items) of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlow, 1960) developed by Strahan and Gerbasi (1972) was administered. Participants were asked to respond true or false to 10 items. Sample items include, "I'm always willing to admit it when I make a mistake" and "I never resent

being asked to return a favor." This form of the scale has high internal consistency, has

been used in other scale development studies (e.g., Neff, 2003), and has better

psychometric properties than the original 33-item form (Fischer & Fick, 1993). This

scale's internal consistency in the current study was $\alpha = .68$.

CHAPTER FOUR

RESULTS

The goal of the present study was to develop a measure of professional self-care that captured the key elements of the construct and was a good predictor of psychological outcomes. To achieve these aims, several sets of analyses were conducted. First, preliminary analyses were conducted to evaluate individual self-care items and to deal with missing data. Second, a series of exploratory factor analyses were conducted to identify the number of underlying factors on the self-care scale and to select the items that best represented the factors based on item distribution and factor loadings. Third, confirmatory factor analyses were conducted to assess and compare model fits. Finally, the correlation coefficients between the self-care scale and subscales with the convergent and discriminant validity measures were examined. SPSS Version 22 was used for the item, factor, and validity analyses, ViSta-PARAN was used for the parallel analysis, and LISREL 8.8 was used for the confirmatory factor analysis.

Preliminary Analyses

Item analyses. Preliminary item analyses involved computation of means, standard deviations, skewness, and kurtosis for each of the 52 self-care items (see Table 2). The goal of the preliminary item analyses was to retain items that had sufficient variability in order to discriminate among individuals with different levels of self-care and to eliminate items that were skewed or kurtotic. The means were examined to look

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for extreme values that might fail to reflect the range of values of the construct. Standard

deviations were also evaluated with the goal of insuring adequate variability of each item.

No items were eliminated based on the mean or standard deviation value.

Table 2. Preliminary Item Analysis

	N	Mean	Standard Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
1. I find ways to foster a sense of social connection and belonging in my life.	421	5.5048	1.24211	-.860	.119	.415	.237
2. I monitor my feelings and reactions to clients.	421	6.1116	.82195	-.830	.119	.755	.237
3. I find ways to enhance a sense of purpose in my life.	421	5.7458	1.04859	-.859	.119	.709	.237
4. I avoid over-commitment to work responsibilities.	422	4.3223	1.51334	-.087	.119	-.876	.237
5. I take time to "smell the roses," to appreciate and be fully in the present moment.	422	4.9218	1.32617	-.476	.119	-.362	.237
6. I participate in activities that promote my professional development.	422	4.9716	1.35254	-.463	.119	-.479	.237
7. I make a conscious effort to appreciate positive things in my life.	422	5.6457	1.12443	-.750	.119	.145	.237
8. I take part in work-related social and community events.	422	3.7962	1.69425	.140	.119	-1.111	.237
9. I see a doctor or other medical professional when I have health concerns.	422	5.7168	1.44117	-1.211	.119	.776	.237
10. I set limits on the number of high-risk clients I see.	417	4.7578	2.08390	-.591	.120	-1.037	.238
11. I spend time with people whose company I enjoy.	422	5.7986	1.14078	-1.113	.119	1.083	.237
12. I connect with organizations in my professional community that are important to me.	422	3.94	1.795	.108	.124	-1.183	.247
13. I make time to engage in leisure activities regardless of my workload.	422	5.15	1.498	-.514	.124	-.680	.247
14. I maintain a professional support system.	422	5.15	1.554	-.669	.124	-.359	.247
15. I share my feelings with others during stressful times in my life.	422	5.73	1.330	-1.142	.124	.735	.247
16. I plan my work activities to include activities that interest me.	421	5.23	1.377	-.833	.124	.344	.247

	N	Mean	SD	Skew	SE	Kurt	SE
17. I spend time with family or friends.	422	6.02	1.131	-1.336	.124	1.596	.247
18. I try to not let my work interfere with my family or personal life.	422	5.66	1.245	-1.063	.124	.759	.247
19. I make an effort to get enough sleep each night.	422	5.62	1.287	-1.078	.124	.994	.247
20. I try not to take the ups and down of my work too personally.	422	5.49	1.135	-.826	.124	.713	.247
21. I participate in physical activity, such as stretching, aerobic activity or strength conditioning.	421	5.14	1.751	-.661	.124	-.758	.247
22. I seek consultation or supervision when professionally challenged	421	5.68	1.366	-1.373	.124	1.730	.247
23. I share my feelings with people close to me.	422	5.87	1.210	-1.262	.124	1.283	.247
24. I take regular vacations.	421	4.94	1.872	-.582	.124	-.833	.247
25. I take extra time to rest when I am not feeling well.	422	4.75	1.651	-.369	.124	-.897	.247
26. I share positive work experiences with colleagues.	422	5.04	1.423	-.755	.124	-.034	.247
27. I seek guidance or counseling when necessary.	421	5.20	1.622	-.881	.124	.023	.247
28. I make adjustments to reduce my workload in the face of professional stressors.	419	4.50	1.517	-.388	.124	-.583	.247
29. I monitor my substance use to ensure that it does not interfere with my functioning.	407	6.45	1.086	-2.690	.125	8.331	.250
30. I share work-related stressors with trusted colleagues.	422	5.58	1.384	-1.227	.124	1.321	.247
31. I use my sense of humor to keep things in perspective.	422	5.98	1.054	-1.139	.124	1.333	.247
32. I avoid workplace isolation.	421	5.09	1.610	-.715	.124	-.416	.247
33. I try to avoid excessive use of alcohol, tobacco, and other substances.	413	6.38	1.176	-2.300	.125	5.274	.249
34. I am mindful of triggers that increase professional stress.	421	5.66	1.015	-.837	.124	.881	.247
35. I spend time in prayer, personal reflection, or some type of spiritual activity.	422	4.37	1.992	-.230	.124	-1.237	.247
36. I maintain a balance between personal and professional life.	422	5.23	1.383	-.636	.124	-.298	.247
37. I take time for recreational or leisure activities.	422	5.47	1.319	-.911	.124	.212	.247

38. I take time to reflect on the satisfying experiences of work.	422	5.13	1.294	-.665	.124	.061	.247
39. I make physical activity part of my regular routine.	421	5.16	1.707	-.657	.124	-.653	.247
40. I make a proactive effort to manage the challenges of my professional work.	421	5.41	1.065	-.539	.124	.031	.247
41. I consume a healthy balance of fruits, vegetables, grain, fats, and protein.	422	5.36	1.370	-.812	.124	.289	.247
42. I find ways to stay current in professional knowledge.	422	5.19	1.257	-.620	.124	-.067	.247
43. I seek out activities or people that are comforting to me.	422	5.79	1.025	-1.110	.124	1.885	.247
44. I maximize time in professional activities I enjoy.	421	4.94	1.275	-.591	.124	.187	.247
45. I try to be aware of my feelings and needs.	422	6.00	.935	-.930	.124	.968	.247
46. I maintain appropriate professional boundaries with my clients.	421	6.51	.751	-2.409	.124	10.515	.247
47. I eat a balanced and healthy diet.	422	5.45	1.269	-.901	.124	.777	.247
48. I cultivate professional relationships with my colleagues.	422	5.31	1.363	-.954	.124	.578	.247
49. I take some time for relaxation each day.	422	5.00	1.613	-.499	.124	-.777	.247
50. I take breaks throughout the workday.	422	4.30	1.742	-.069	.124	-1.191	.247
51. I get at least 6 hours of sleep each night.	422	6.10	1.218	-1.814	.124	3.337	.247
52. I delegate or simplify the business aspects of my practice when possible.	414	4.82	1.695	-.647	.125	-.515	.248

For the skewness and kurtosis, items with an absolute skewness value above three or a kurtosis value above eight are considered "extreme" (Kline, 2004). Based on these criteria, two items were omitted due to kurtosis values of greater than eight (Item 29, "I monitor my substance use to ensure that it does not interfere with my functioning." and Item 46, "*I maintain appropriate professional boundaries with my clients*"). The final 50 items had an average absolute skewness value of $M = 0.80$ (range -2.30 to 0.14) and an

average absolute kurtosis value of $M = 0.87$ (range -1.24 to 5.27). These 50 items were thus included in the remaining analyses. Although two items were dropped, the original numbering system (see Table 1) was retained for the purposes of the remaining analyses and discussion.

Missing data. While, the majority of respondents answered each question, there was a small amount of missing data. In the current study, only participants that answered at least 80% of the self-care items were included in the study and considered as candidates for maximum-likelihood estimation and subsequent factor analysis (Peng, Harwell, Liou, & Ehman, 2006). Two participants failed to answer any of the self-care items and were eliminated from all analyses. Of those who responded to the self-care scale, about 4% of participants were missing only one value and 2.4% of participants were missing two or three values. No participants were missing more than three items on this 50-item scale. Within the self-care scale, only 38 (0.18%) of the 21100 data points were missing. Little's Missing Completely at Random (MCAR) Test (1998) was conducted on the 422 participants to determine whether the self-care data were missing completely at random. Little's MCAR Test indicated that the self-care data were missing at random. In other words, there were no identifiable patterns to the missing data, $\chi^2 (821, 422) = 859.96$, $p = .17$.

As missing data may impact the results (Allison, 2002), reduce the reliability of the factor subscale scores (Enders, 2003), and limit statistical power (Roth, Switzer, & Switzer, 1999), the expectation-maximization (EM) algorithm was then performed to impute missing data. The missing value estimates were based on each participant's other self-care items. The EM algorithm is based on an expectation step and a maximization

step, which are repeated several times until maximum likelihood estimates are obtained (Allison, 2012). The EM algorithm operates under the missing at random and multivariate normality assumptions and is the recommended method of handling missing data when all conditions are met (Allison, 2012; Schafer & Graham, 2002). The maximum likelihood procedure was chosen over multiple imputation as it is more efficient, always produces the same result, and is more definitive (Allison, 2012; Schafer & Graham, 2002).

A similar procedure was followed for the validity measures. Preliminary analyses examined the validity measures' mean, standard deviation, skewness, and kurtosis values. The skewness and kurtosis values were considered "extreme" for two validity items, "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?" and "During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?" Responses to these items were included in the correlational analyses assessing convergent validity. However, given their limited variability, these correlations should be interpreted with caution.

For the MBI, PSS, SWLS, and Marlowe-Crowne Social Desirability Scale measures, the same missing data and imputation procedures were followed. As recommended by Peng et al. (2006), only participants that answered at least 80% of the items on a validity questionnaire were considered as candidates for the analysis. On the nine-item emotional exhaustion (EE) subscale of the MBI, two participants (0.47%) were missing more than 20% of items and were excluded from subsequent analysis. On the EE subscale, four participants (0.95%) were missing one data value. On the five-item

depersonalization (DEP) subscale of the MBI, two participants (0.47%) were missing

more than 20% of items and were excluded from subsequent analysis. On the DEP

subscale, only two participants (0.48%) were missing one data value. On the eight-item

personal accomplishment (PA) subscale of the MBI, five participants (1.18%) were

missing more than 20% of items and were excluded from subsequent analysis. Of the

remaining participants, five participants were (1.2%) missing one data point.

On the ten-item PSS, three participants (0.71%) were missing more than 20% of

items and were excluded from subsequent analysis. Five participants (1.2%) were

missing data one value and one participant (0.24%) was missing two data values. On the

five-item SWLS, one person (0.24%) was missing more than 20% of items and was

excluded from subsequent analysis. Only two participants (0.48%) were missing one

item. On the 10-item Marlowe-Crowne Social Desirability Scale, one person (0.24%)

was missing more than 20% of items and was excluded from subsequent analysis. A total

of eight participants (1.9%) were missing one data value. For all the validity measures,

the data were found to be missing at random (MCAR) and maximum likelihood

imputation was subsequently conducted.

Exploratory Factor Analysis

It was hypothesized that a higher order, two-factor solution would emerge

composed of a personal self-care factor and professional self-care factor. As this was a

new measure and new conceptual model of self-care, no earlier factor analytic study had

been conducted. Thus, a large number of other possible solutions (e.g., various one-

dimensional and multidimensional models) could have been observed. Therefore, an

exploratory factor analysis (EFA) was important to determine the factor structure of the

self-care scale. Bartlett's test confirmed that EFA was appropriate for the sample,

$X^2(1225) = 10818.30$, $p < .001$, and a Keiser-Meyer-Olkin (KMO) test indicated that the

data were likely to yield reliable factors, $KMO =. 89$.

Principal axis factoring (PAF) was selected as the exploratory method. As noted

previously, Items 29 and 46 were dropped due to their extreme kurtosis values and the

PAF was conducted on the remaining 50 self-care items. PAF was used to identify the

underlying factors and select the items that best represent these factors. PAF was chosen

as it uses only the variability that an item has in common with the other items. In measure

development, PAF is the preferred analytic method when the goal is to establish the

underlying factor structure (DeVellis, 2012). An oblique, promax rotation was performed

to allow the components to be correlated with each other and to allow items to load on

multiple scales (Thompson, 2004). The scree plot, eigenvalues, parallel analysis, and

interpretability were all considered in determining the factor structure and appropriate

number of factors. For an item to be included on a factor, a minimum factor loading

of .32 was required, which signifies 10% overlapping variance of the item with the other

items in the factor (Tabachnick & Fidell, 2007). Cross-loading items with values greater

than or equal to .32 on at least two factors were also deleted. The factor reliability was

checked after dropping each item to ensure that the dropped item did not greatly affect

the reliability of the factor. Follow-up PAF solutions were conducted after each revision

or deletion in order to evaluate the effect of the factor or item deletion. The subsequent

PAFs used the interpretable factors from the previous PAF to force a certain number of

factors to emerge and to finalize the constituent items that loaded onto each factor.

The initial promax rotation initially yielded twelve factors with eigenvalues greater than one (see Table 3). These twelve factors accounted for 64.65% of the variance with Factor 1 accounting for 25.85% of the variance. The first 12 initial eigenvalues of greater than 1 (and % of variance accounted for) extracted from the PAF were 12.92 (25.85%), 3.94 (7.88%), 2.34 (4.68%), 2.05 (4.11%), 2.00 (4.00%), 1.64 (3.27%), 1.59 (3.17%), 1.37 (2.74%), 1.23 (2.47%), 1.14 (2.28%), 1.07 (2.14%), and 1.04 (2.08%) (see Appendix B for eigenvalues, parallel analyses, and scree plot). Parallel analysis was also performed to determine how many factors could be extracted. Parallel analysis creates datasets with the same number of cases (N = 422) and variables (N = 50) as the actual dataset and fills them with random numbers. Exploratory factor analysis is then performed on each dataset to compute their eigenvalues. For the current study, the parallel analysis used 1,000 datasets and a 95% cutoff (O'Connor, 2000). Parallel analysis indicated that up to fourteen eigenvalues found in the current study were greater than the eigenvalue that would have been expected to occur by chance (95% confidence) (Appendix B). Therefore, up to fourteen non-spurious factors may have been extracted and interpreted (O'Connor, 2000).

The scree plot depicted a gradual curve and was made up of several factors lying between the vertical and horizontal regions of the plot (Appendix B). As DeVellis (2012) noted, in such cases, it can be difficult to employ the scree plot to determine the number of factors and this may require a greater reliance on subjective criteria such as factor interpretability. When examining the interpretability of the factors in light of the eigenvalues, parallel analysis, and scree plot, eight factors emerged. Factor 12 was eliminated as it contained zero items with a loading of above .32. Factor 10 was also

eliminated as it contained only one item with a loading of above .32. Factor 6 was eliminated as it contained only three items and explained a lower percentage of the variance as compared to the first five factors. Additionally, the items in Factor 6 shared conceptual overlap with the other factors but represented items that were more reactive, coping strategies rather ongoing self-care techniques. Factor 11 was also eliminated as the factor contained only two items and explained a lower percentage of the variance as compared to other factors. Additionally, Factor 4 lost one item (item 52) with a loading of less than .32 and Factor 5 lost one item (item 22) with a loading of greater than .32 on two factors.

In total, four factors (Factors 6, 10, 11, 12) and 10 items (items 9, 10, 15, 22, 23, 25, 27, 28, 35, 52) were deleted following the first PAF. For the remaining eight factors, Factor 1 contained items that represented having a life outside of work or Life Balance (items 1, 11, 13, 17, 18, 24, 36, 37, 43); Factor 2 contained items that represented Professional Development or engagement (items 6, 8, 12, 24, 42, 44); Factor 3 had items that represented psychological or Cognitive Strategies (items 2, 3, 7, 20, 31, 33, 34, 38, 40, 45); Factor 4 had items that represented Daily Balance activities (items 4, 5, 49, 50); Factor 5 contained items that represented Professional Support (items 14, 26, 30, 32, 48); Factor 7 contained items that represented Exercise (items 21, 39); Factor 8 contained items that reflected Diet (items 41, 47); and Factor 9 had items that represented Sleep (items 19, 51).

A second PAF was conducted to examine the impact of these initial revisions and further refine the subscales and items. The PAF forced the remaining 40 items onto an eight-factor structure. The second PAF was largely consistent with the results of the

initial PAF in terms of the factors that emerged and the item factor loadings. Items 13 and

31 were dropped as they each had factor loadings above .32 on two factors. A third PAF

then was performed to refine the factors and items and forced the remaining 38 items

onto eight factors. The factors and item loadings from the third PAF were largely

consistent with the initial PAFs. Items 7 and 38 were dropped as they shifted onto a

different factor and had the lowest loadings on that factor.

Table 3. Initial Item-Factor Loadings

Item #	Factor											
	1	2	3	4	5	6	7	8	9	10	11	12
17.	**.742**	.101	-.052	-.096	.010	.137	-.168	.101	.042	-.017	-.126	-.001
37.	**.700**	-.040	-.095	.256	-.016	-.028	.252	-.035	-.115	.069	-.081	.006
18.	**.677**	-.081	-.025	.152	-.040	-.066	-.139	.000	.160	-.037	-.053	.131
36.	**.669**	-.103	.040	.275	-.072	-.033	-.037	.039	.063	-.060	.045	-.074
13.	**.581**	-.073	-.178	.310	.073	-.024	.182	.014	-.143	.053	.024	.020
11.	**.453**	.166	.126	-.194	-.012	.242	.038	-.021	.031	.060	.083	-.162
43.	**.440**	.094	.175	-.049	-.018	.247	-.035	-.064	.061	-.054	-.046	.041
1.	**.416**	.046	.254	-.020	.219	.119	.005	-.014	-.091	.029	.043	-.336
24.	**.400**	.037	-.085	-.075	.024	.037	.013	.068	-.047	.375	.135	-.049
12.	-.070	**.817**	-.104	-.123	.115	-.091	.147	-.059	.014	.041	.057	-.045
8.	.047	**.724**	-.162	.083	.176	-.113	-.106	-.040	.028	.030	-.001	-.114
6.	-.027	**.722**	-.022	.097	.012	-.068	-.002	.007	-.088	.047	-.104	.255
42.	-.006	**.545**	.144	-.133	-.093	-.029	-.032	.045	-.023	.150	-.141	.526
44.	.133	**.491**	.141	-.011	-.015	-.058	.006	-.065	.054	-.079	.055	.188
16.	.149	**.412**	.102	.081	-.021	.028	.016	-.041	.112	-.072	.129	.052
3.	.107	.118	**.669**	-.131	-.087	-.026	.018	.015	-.029	-.020	.105	-.190
33.	.008	-.069	**.632**	-.187	.142	-.219	-.053	.040	-.035	-.060	.116	.113
34.	-.053	-.092	**.630**	.092	.140	-.051	-.003	.108	-.017	-.154	.093	.032
31.	.071	-.324	**.564**	-.066	.342	-.100	-.020	-.070	.053	.101	-.126	-.102
20.	.001	-.122	**.494**	.093	-.040	-.128	.094	-.141	.172	.108	.114	.048
45.	-.108	-.068	**.473**	.250	-.079	.419	-.063	.006	-.026	-.102	-.016	.025
7.	.127	.110	**.436**	.143	-.077	.012	-.045	.014	-.082	.161	-.059	.034
2.	-.368	.032	**.426**	.173	-.026	.259	.032	.052	-.043	-.083	-.028	.009
40.	.038	.123	**.401**	.084	.044	.040	.147	.031	.058	-.079	-.048	.094
38.	.034	.204	**.358**	.138	.018	.046	.081	-.045	.020	.131	-.160	.036
49.	.105	-.037	-.021	**.731**	.037	.019	.004	-.009	.027	.015	-.154	-.032

50.	.021	.093	.023	**.660**	.143	-.201	-.062	-.023	-.018	.076	.009	-.051
4.	.183	-.107	-.020	**.582**	-.076	.001	.002	-.030	.008	-.040	.176	-.120
5.	.118	.082	.248	**.409**	-.118	.053	-.005	-.001	-.051	.092	.014	-.072
52.	-.017	.034	.008	.305	.206	-.098	-.049	-.044	.156	.108	.053	-.015
32.	.035	.069	.106	.108	**.724**	-.158	-.068	.023	.005	.082	-.085	-.165
48.	-.109	.270	.026	.146	**.723**	.065	.009	.111	.017	-.117	-.102	-.050
26.	-.065	-.035	.001	.028	**.610**	.069	.041	-.021	-.006	.416	-.094	.094
30.	.043	-.056	.145	-.141	**.516**	.225	.003	-.050	.028	-.013	.063	.162
14.	.103	.195	-.092	.043	**.474**	.165	-.040	.018	-.042	-.097	.133	.071
22.	.055	-.012	.021	-.119	.338	.329	.070	-.049	-.059	-.055	.019	.313
23.	.146	-.113	-.099	-.105	-.063	**.960**	-.032	.002	.034	.113	-.088	-.015
15.	.116	-.127	-.104	-.033	.084	**.791**	.018	-.013	.007	.081	-.014	.016
27.	-.019	-.004	.037	-.001	.172	**.329**	-.007	-.042	-.059	.135	.135	.316
21.	-.049	.028	-.002	-.048	-.030	.011	**.959**	.024	.053	-.048	.012	-.014
39.	-.014	.014	.029	-.025	-.017	-.030	**.927**	.040	.011	.004	-.014	-.010
47.	.019	-.012	.019	-.027	-.010	-.008	.034	**.907**	.073	.026	.072	-.059
41.	.099	-.093	.070	-.037	.066	-.032	.038	**.899**	-.015	.082	-.030	.079
19.	.112	.062	-.034	-.031	-.037	-.017	.066	.028	**.828**	.008	-.061	.107
51.	-.074	-.060	-.012	.109	.034	.051	.007	.043	**.701**	.053	.009	-.140
25.	-.084	.068	-.176	.324	.057	.198	-.022	.035	.131	**.569**	.015	.076
35.	.095	.172	.177	.019	-.117	-.074	-.103	.093	-.105	.239	.018	.181
10.	-.064	-.033	.135	.023	-.106	-.068	.002	.031	-.034	.050	**.712**	-.082
28.	-.078	.031	.014	.299	.025	.023	-.042	.010	.023	.276	**.336**	.137
9.	-.060	.163	.010	.094	.021	.121	-.023	.050	.038	.194	.194	.016

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.[a]
a. Rotation converged in 46 iterations.

Items 33 and 24 were also eliminated due to poor interpretability and as the eliminations did not greatly affect the factor reliabilities. The final PAF and self-care measure was comprised of 34 items that loaded onto eight factors. Table 4 presents the final factors, items, and loadings.

Confirmatory Factor Analysis

Although it was expected that a two-factor structure would emerge, exploratory factor analysis determined that an eight-factor structure best fit the data. To test the fit of

the eight-factor model in comparison to the hypothesized two-factor model, confirmatory

factor analyses were employed. Confirmatory factor analysis (CFA) and structural

equation modeling (SEM) – based approaches provide a statistical method for evaluating

how well the data fit a model and for comparing alternative model fits (DeVellis, 2012).

The model fits of a two-, eight-, five-, and one-factor model were evaluated. First, a two-

factor model was tested as it was originally hypothesized that a two-factor structure

would provide the best model fit with items loading onto a personal or professional self-

care factor.

Table 4. Final Item-Factor Loadings

Item	Factor							
	1	2	3	4	5	6	7	8
Life Balance								
17. I spend time with family or friends.	.848							
11. I spend time with people whose company I enjoy.	.745							
43. I seek out activities or people that are comforting to me.	.637							
1. I find ways to foster a sense of social connection and belonging in my life.	.633							
36. I maintain a balance between personal and professional life.	.616							
37. I take time for recreational or leisure activities.	.592							
18. I try to not let my work interfere with my family or personal life.	.527							
Professional Support								
48. I cultivate professional relationships with my colleagues.		.815						
32. I avoid workplace isolation.		.687						
26. I share positive work experiences with colleagues.		.630						
30. I share work-related stressors with trusted colleagues.		.612						
14. I maintain a professional support system.		.554						
Professional Development								
12. I connect with organizations in my professional community that are important to me.			.785					
6. I participate in activities that promote my professional development.			.765					
8. I take part in work-related social and community events.			.699					
42. I find ways to stay current in professional knowledge.			.556					
44. I maximize time in professional activities I enjoy.			.446					
16. I plan my work activities to include			.356					

activities that interest me.

Cognitive Strategies

45. I try to be aware of my feelings and needs.	.769							
2. I monitor my feelings and reactions to clients	.653							
34. I am mindful of triggers that increase professional stress.	.614							
3. I find ways to enhance a sense of purpose in my life.	.416							
40. I make a proactive effort to manage the challenges of my professional work.	.403							
20. I try not to take the ups and down of my work too personally.	.383							
Daily Balance								
50. I take breaks throughout the workday.		.720						
49. I take some time for relaxation each day		.636						
4. I avoid over-commitment to work responsibilities.		.555						
5. I take time to "smell the roses," to appreciate and be fully in the present moment.		.452						
Exercise								
39. I make physical activity part of my regular routine				.972				
21. I participate in physical activity, such as stretching, aerobic activity or strength conditioning				.941				
Diet								
41. I consume a healthy balance of fruits, vegetables, grain, fats, and protein.						.925		
47. I eat a balanced and healthy diet.						.878		
Sleep								
19. I make an effort to get enough sleep each night.								.977
51. I get at least 6 hours of sleep each night								.626
Percentage of Variance (%)	27.89	10.22	5.80	5.13	4.52	4.15	3.56	3.19
Eigenvalue	9.48	3.48	1.97	1.74	1.54	1.41	1.21	1.08
Cronbach's Alpha	.86	.83	.82	.75	.74	.95	.93	.78

However, as the exploratory analysis found that an eight-factor model emerged, an eight-factor model was also examined. A five-factor model that consisted of the first five factors and excluded the three factors pertaining to physical health was also considered. The three, two-item physical health factors were dropped as some literature argues that three items or more are needed to identify common variance (e.g., Anderson & Rubin, 1956; Comrey, 1988; Yong & Pearce, 2013). Finally, a one-factor structure was first tested to see whether the data reflected a one-factor model where all the items represented

the unitary construct of self-care. As EFA does not provide information about which model provides the best fit for the data, CFA was used to both assess and compare model fits.

Confirmatory factor analysis (CFA) was conducted using LISREL 8.8 (Jöreskog & Sörbom, 1993) to test and compare the model fits. The CFA used robust maximum-likelihood (RML) estimation in order to correct for distortion in fit indices and standard errors due to multivariate nonnormality. The Satorra-Bentler scaled maximum-likelihood chi-square (SB-ML χ^2; Bryant & Satorra, 2012; Satorra & Bentler, 1994) was calculated as well as four indices of model fit. The statistical significance of the model's overall chi-square value was not employed as the primary index of model fit because this statistic tests the hypothesis of perfect fit, is "too strong to be realistic" (Hu & Bentler, 1998, p. 425), and is not typically used to assess model fit in applied research (Brown, 2006). As recommended by Hu and Bentler (1998), model fit was assessed using two indices of absolute fit (root mean square error of approximation [RMSEA], standardized root mean square residual [SRMR]) and two indices of relative fit (comparative fit index [CFI], non-normed fit index [NNFI]). In assessing goodness-of-fit, RMSEA < .08 (Browne & Cudeck, 1993), SRMR < .08 (Hu & Bentler, 1998), CFI > .90 and NNFI > .90 (Bentler & Bonett, 1990) were considered as representing acceptable model fit. According to the model fit criteria, the one- and two-factor model provided poor fit for the data while the five- and eight-factor model met all the criteria for acceptable model fit (see Table 5).

Table 5. Confirmatory Factor Analysis Assessment of Model Fit

# Factors	# Items	SB-ML χ^2	df	RMSEA	SRMR	CFI	NNFI
1	34	3241.69	527	.126	.110	.807	.794
2	34	4979.51	526	.119	.112	.828	.816
5	28	940.18	340	.071	.072	.951	.945
8	34	1272.08	499	.064	.069	.951	.945

* RMSEA and SRMR value of < .08 is acceptable
* CFI and NNFI value of > .90 is acceptable

In order to examine whether a two-factor structure provided significantly better fit to the data as compared to alternative models, the two-factor model fit was first compared to the eight-factor model fit. The eight-factor model fit the data significantly better than the two-factor model, *delta-χ^2 (27, 422)* = 3707.43, *p* < .001. A five-factor model was also evaluated in comparison to the two-factor model. Similar to the eight-factor model, the five-factor fit the data significantly better than the two-factor model, delta-X^2(186, 422) = 4039.33, *p* < .001. Ultimately the CFA demonstrated that a two-factor model provided a poor fit to the data and that alternative, multi-dimensional models fit the self-care data significantly better. Thus, Hypothesis 1 predicting a two-factor structure was not supported.

Finalization of Scale

In terms of optimal scale length, the goal was for the Personal and Professional Self-Care Scale to consist of approximately 20-30 items and to take no more than 10-15 minutes, as additional time may decrease motivation and response rate. Based on the results of the factor analyses, 34 items representing eight subscales were retained for further evaluation in the construct validation analyses. Factor subscales scores were created based on totaling the items comprising the factor. The correlations between items in the factor as well as the correlations between each item and the factor total were

calculated as a check on the item performance. The correlations among the factors were also calculated (see Table 6).

Table 6. Factor-Total Correlations

	Life Balance	Professional Development	Cognitive Strategies	Daily Balance	Professional Support	Exercise	Diet	Sleep
Life Balance	1	.434**	.543**	.571**	.494**	.289**	.309**	.378**
Professional Development	.434**	1	.479**	.336**	.599**	.143**	.136**	.157**
Cognitive Strategies	.543**	.479**	1	.516**	.483**	.212**	.323**	.268**
Daily Balance	.571**	.336**	.516**	1	.311**	.239**	.342**	.412**
Professional Support	.494**	.599**	.483**	.311**	1	.083	.108*	.190**
Exercise	.289**	.143**	.212**	.239**	.083	1	.366**	.206**
Diet	.309**	.136**	.323**	.342**	.108*	.366**	1	.247**
Sleep	.378**	.157**	.268**	.412**	.190**	.206**	.247**	1

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

The final eight-factor solution accounted for 64.5% of the variance and consisted of the following factors: a seven-item Life Balance scale (α = .86), a six-item Professional Development scale (α = .82), a six-item Cognitive Strategies scale (α = .75), a four-item Daily Balance scale (α = .74), a five-item Professional Support scale (α = .83), a two-item Exercise scale (α = .95), a two-item Diet scale (α = .93), and a two-item Sleep scale (α = .78).

Validity

The construct validity was assessed by examining the significance of the correlation coefficients for the factor subscale scores with the PSS, SWLS, MBI-HSS, items regarding physical and mental health, and the Marlowe-Crowne Social Desirability

Scale (see Table 7). Specifically, the convergent validity and discriminant validity were assessed by computing the bivariate Pearson correlations for each of the Personal and Professional Self-Care Scale factor subscales with the validity scales and items.

Table 7. Validity Correlations

	EE α =.89 N=420	DP α =.71 N=420	PA α =.73 N=417	PSS α = .86 N=419	SWLS α =.87 N= 421	SD α=.68 N= 421	Days Poor Physical N= 421	Days Poor Mental N= 421	Poor Days N= 422
Factor 1 (Life Balance) α = .86	-.44**	-.24**	.34**	-.50**	.53**	.11*	-.018	-.30**	-.034
Factor 2 (Prof. Development) α = .82	-.27**	-.27**	.30**	-.29**	.34**	.11*	.001	-.24**	-.002
Factor 3 (Cognitive) α = .75	-.42**	-.40**	.47**	-.45**	.41**	.16**	-.012	-.27**	-.068
Factor 4 (Daily Balance) α = .74	-.48**	-.25**	.29**	-.46**	.35**	.16**	.003	-.31**	-.031
Factor 5 (Prof. support) α = .83	-.19**	-.14**	.30**	-.22**	.31**	.075	-.030	-.16**	-.031
Factor 6 (Exercise) α = .95	-.206**	-.029	.162**	-.270**	.209**	.030	-.084	-.16**	-.030
Factor 7 (Diet) α = .93	-.255**	-.171**	.222**	-.271**	.227**	.11*	.047	-.14**	-.042
Factor 8 (Sleep) α = .78	-.303**	-.099*	.120*	-.304**	.228**	.11*	.011	-.185**	-.040

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Consistent with expectations, all eight self-care factor scores had a significant negative correlation with perceived stress (Hypothesis 2) and a significant positive correlation with satisfaction with life (Hypothesis 3). In regards to burnout, consistent with expectations, all eight self-care factor scores had a significant negative correlation with emotional exhaustion, a significant negative correlation with depersonalization of clients, and a significant positive correlation with personal accomplishment (Hypothesis 4).

The two items that assessed days of physical illness and days of illness that interfered with one's usual activities had "extreme" skewness and kurtosis values. Specifically, 76.5% of participants had three or fewer days of poor physical health and

88.6% of participants had three or fewer days of illness that interfered with usual

activities. Although the two items had no significant correlations with any of the factor

scores, these nonsignificant results should be interpreted with caution due to their

extremely skewed distributions. For the item assessing days of poor mental health during

the past month, as expected all eight self-care factor scores had a significant negative

correlation with this item; individuals that participated in more self-care activities

reported fewer days of poor mental health (Hypothesis 5). In regards to the measure

that assessed four areas of self-care (physical, psychological, spiritual, and social), due to

the low reliability of the four items ($\alpha = .43$) the relationship between this total self-care

score and the Personal and Professional Self-Care Scale subscale scores could not be

tested (Hypothesis 6).

In terms of discriminant validity, all eight self-care factor scores had a significant

positive correlation with social desirability except for Factor 5 (Professional Support) and

Factor 6 (Exercise). Because the social desirability score and the majority of the Personal

and Professional Self-Care Scale subscale scores were significantly related, Hypothesis 7

was not supported. However, the correlations between social desirability and the self-care

factors were lower than the correlations between the other validity measures and self-care

and only two factors scores were significant at the $p < .01$ level (Factor 3, Cognitive

Strategies; Factor 4, Daily Balance).

In order to test whether the differences in strength of the correlation coefficients

between the convergent validity measures and the discriminant validity measure were

statistically significant, the contrast correlation coefficients were calculated. The method

of testing a contrast among correlated correlation coefficients allows for the comparison

of the pattern and strength of correlation coefficients (Meng, Rosenthal, & Rubin, 1992).

The correlations between the convergent validity measures and the self-care factor scores

were expected to be significantly stronger than the correlation between the discriminant

validity measure and the self-care factor scores. For each factor, the strength of the

correlations of five convergent validity measures (emotional exhaustion,

depersonalization, personal accomplishment, perceived stress, and satisfaction with life)

was compared to the strength of the correlation with the discriminant validity measure

(social desirability).

For the eight factors, the contrasts were applied to Fisher Z transformed values of

the actual, observed correlation. Consistent with expectations (Hypothesis 8),

examination of the one-tailed Z scores and the observed pattern of correlations indicated

that all eight factors scores had a significantly stronger correlation with the measures of

convergent validity as compared to the measure of discriminant validity (Table 8).

Table 8. Contrast Correlated Correlation Coefficients

Factor	Z-Score	One-tailed p-value
Factor 1	7.11	$p < .001$
Factor 2	4.21	$p < .001$
Factor 3	6.35	$p < .001$
Factor 4	4.95	$p < .001$
Factor 5	3.66	$p < .001$
Factor 6	3.32	$p < .001$
Factor 7	2.67	$p = .004$
Factor 8	2.38	$p = .009$

Regression analyses. To further examine the self-care factors, six simultaneous

multiple regression analyses were performed to determine the most significant predictors

of personal and professional well-being outcomes. In simultaneous multiple regression,

independent variables are added to the regression model in one step. This statistical

method allows researchers to assess the amount of variance explained by each variable when accounting for the variance explained by the other variables. The eight self-care factors served as the predictor or independent variables. The outcome measures or dependent variables included: perceived stress, satisfaction with life, emotional exhaustion (EE), depersonalization (DEP), personal accomplishment (PA), and days of poor mental health.

In the regression analysis examining whether the eight self-care factors significantly predicted the six outcomes (perceived stress, satisfaction with life, emotional exhaustion, depersonalization, personal accomplishment, and days of poor mental health), all six regression models found that the self-care factors together significantly predicted the outcomes in the expected directions, $p < .001$ (Table 9).

Table 9. Simultaneous Regressions

Outcome	n	R^2	F	p
Perceived Stress	419	.338	26.16	$< .001.$
Satisfaction with Life	421	.313	23.43	$< .001.$
Emotional Exhaustion	420	.304	22.43	$< .001.$
Depersonalization	420	.193	12.27	$< .001.$
Personal Accomplishment	417	.244	16.45	$< .001.$
Days Poor Mental Health	421	.138	8.22	$< .001.$

Of particular relevance was the predictive ability of each factor independently when all of the other factors were controlled. In that regard, Factor 1, Life Balance, was a significant predictor of lower perceived stress, $\beta = -.24$, $t = -4.72$, $p < .001$, greater life satisfaction, $\beta = .32$, $t = 6.70$, $p < .001$, and lower EE, $\beta = -2.26$, $t = -3.18$, $p = .002$. Factor 2, Professional Development, was a significant predictor of greater life satisfaction, $\beta = .089$, $t = 2.04$, $p = .042$, lower DEP, $\beta = -.086$, $t = -3.06$, $p = .002$, and fewer days of poor mental health, $\beta = -.085$, $t = -2.19$, $p = .029$. Factor 3, Cognitive Strategies, was a

significant predictor of lower perceived stress, $\beta = -.28$, $t = -3.76$, $p < .001$, greater life

satisfaction, $\beta = .18$, $t = 2.48$, $p = .014$, lower EE, $\beta = -3.41$, $t = -3.25$, $p = .001$, lower

DEP, $\beta = -.27$, $t = -5.86$, $p = .001$, and the sole predictor of greater PA, $\beta = 3.18$, $t = 6.00$,

$p < .001$. Factor 4, Daily Balance, was a significant predictor of lower perceived stress, β

$= -.185$, $t = -2.92$, $p = .004$, lower EE, $\beta = -3.93$, $t = -4.38$, $p < .001$, and fewer days of

poor mental health, $\beta = -.13$, $t = -2.42$, $p = .016$.

Although correlational analyses had indicated that Factor 5, Professional Support,

was correlated with lower perceived stress, EE, and DEP, the findings from the

regression models were not as expected. Professional Support was a significant predictor

of greater perceived stress, $\beta = .13$, $t = 2.18$, $p = .030$, a significant predictor of greater

EE, $\beta = 1.86$, $t = 2.25$, $p = .025$, and a significant predictor of greater DEP, $\beta = .12$, $t =$

2.81, $p = .005$. The reversal in signs between the negative bivariate correlations and the

positive regression coefficients was suggestive of a negative suppression effect. In the

case of negative suppression, the sign of the suppressor variable (Professional Support)

changes direction, becoming opposite of the sign of the path coefficient in the equation if

the other predictor variable(s) had not been included (Conger, 1974). While the negative

suppressor becomes a predictor of the outcome in the opposite direction, the other

variable or sets of variables increase in predictive validity.

Suppression is more likely to occur when there is a strong association between the

predictor variables (Gaylord-Harden, Cunningham, Grant, & Holmbeck, 2010) and

results in a "surprise" relationship between the predictor variable and the criterion

variable (Kline, 2011). In this case, the predictive validity of the other variables did not

increase when entered into the equation along with professional support and the other

self-care factors. The factors may not have increased in predictive validity due to the fact

that all eight factors were entered into the model. Thus although negative suppression did

not occur, a negative-suppression like effect may have obscured the true relationship

between Professional Support and the outcome variables.

In regards to the predictive ability of the final three factors, Factor 6, Exercise,

was a significant negative predictor of perceived stress, $\beta = -.14$, $t = -2.02$, $p = .044$, and a

significant positive predictor of DEP, $\beta = .282$, $t = 2.11$, $p = .035$. Factors 7 and 8, Diet

and Sleep, were not significant predictors of any of the outcomes.

CHAPTER FIVE

DISCUSSION

The goal of the present study was to develop a measure of personal and professional self-care for psychologists. Based on the theoretical literature and the conceptual framework offered by Lee and Miller (2013), a two-factor model was hypothesized that divided self-care into personal and professional activities. In the study, self-care was defined as a multi-dimensional, multi-faceted process of purposeful engagement in strategies that promote healthy functioning and enhance well-being. Items were developed to reflect self-care activities in both personal and professional life. The personal self-care strategies included activities in the physical, psychological, spiritual, social, and recreational dimensions of experience. The professional self-care strategies included behaviors in the psychological, social, work-life balance, and developmental dimensions of experience. The personal and professional self-care factors were expected to relate to measures of personal and professional well-being.

Contrary to expectations, the self-care behaviors did not fit into two distinct personal and professional factors. Rather, results from the exploratory factor analysis yielded an eight-factor structure. The eight factors comprised a mix of both personal and professional items; based on item content, the factors were identified as Life Balance, Professional Development, Cognitive Strategies, Daily Balance, Professional Support, Exercise, Diet, and Sleep. Of these eight factors, some represented behaviors that were

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largely workplace strategies (i.e. Professional Support and Professional Development); some factors represented behaviors that occurred in personal life (i.e., Life Balance and Exercise); and others cut across both personal and professional life (i.e., Cognitive Balance and Daily Balance). The self-care factors were correlated and predictive of personal and professional well-being outcomes, which added to the evidence supporting the validity of these factors.

This discussion begins with a summary of the factors comprising the eight-factor model. Following, validity considerations and implications for the current understanding of self-care are examined. Finally, the limitations and recommendations for future research are discussed.

Self-Care Factors

During the item development phase, the self-care items were constructed to represent different types of self-care activities that occur in either the personal or professional life domains. It was expected that the exploratory factor analysis would yield two distinct but related factors: one factor representing activities in the personal domain and one factor representing activities in the professional domain. However, the exploratory factor analysis yielded 8 interpretable factors. These eight factors included items from both the personal and professional domains, with some factors more clearly rooted in the personal domain, some factors more clearly fitting in the professional domain, and some factors cutting across both the personal and professional life domains. Although not initially predicted, several findings supported the extraction of an eight-factor solution for further testing. First, the internal consistency of each factor was adequate; i.e., the items of each factor reliably hung together to represent that factor.

Second, the factors were interpretable and consistent with the theoretical literature regarding self-care. Third, confirmatory factor analysis indicated that the eight-factor model provided a significantly better fit to the data as compared to the hypothesized two-factor model. Finally, validity analyses also indicated that the majority of these factors predicted well-being outcomes as expected. Thus, these factors appear to represent important areas of self-care that merit further study. This section describes each factor in more detail.

The first factor that emerged was Life Balance or having a life outside of work. Life Balance consisted of seven items that came from the personal dimensions of social support and recreation and the professional dimension of work-life balance. Life Balance contained items involving taking time for family and friends, participating in recreational activities, and balancing work and personal life. The conceptual literature repeatedly emphasizes the importance of having a life outside of work, setting boundaries between work and family life, and sustaining health escapes (e.g., Carroll et al., 1999; Norcross & Guy, 2007). Consistent with the conceptual literature, prior research suggests that psychologists endorse having a work-life balance as important for their functioning effectively at work (Stevanovic & Rupert, 2004). Additionally, Stevanovic and Rupert (2004) found that individuals with greater career satisfaction endorsed life balance (i.e., spend time with spouse/partner/family and maintain balance between personal and professional life) as more important compared to those with less career satisfaction. This factor had the highest alpha, and the findings are consistent with the theoretical and empirical literature that emphasizes the role of having a personal life and support system outside the workplace. Life Balance was found to be predictive of both personal and

professional well-being outcomes, including lower perceived stress, greater life satisfaction, and lower emotional exhaustion. Overall, this factor highlights the importance of having more than a professional identity but also a personal identity or role outside the workplace.

The second factor that emerged was Professional Development. Professional Development consisted of six items that originated from the professional dimensions of social, work-life balance, and developmental self-care. Items in this factor highlight the importance of engaging in work activities that are enjoyable, participating in professional organizations and events, and staying current in professional knowledge. The conceptual literature notes the important role of professional development and engagement in the workplace for self-care among psychologists (e.g., ACCA n.d.-c; ACCA 2009; Carroll et al., 1999; Norcross, 2000). In line with the conceptual literature, empirical research among psychologists highlights the value of professional development; specifically, career-sustaining behaviors such as participating in continuing education and maintaining professional identity have been endorsed as important work-related behaviors for psychologists (Kramen-Kahn & Hansen, 1998; Rupert & Kent, 2004; Stevanovic & Rupert, 2004). In the present study, Professional Development was found to be predictive of greater life satisfaction, lower depersonalization of clients, and fewer days of poor mental health. Although research has not yet examined the relationship between burnout and professional development self-care strategies among psychologists (Rupert, Miller, & Dorociak, 2015), the present study highlights the potentially important role of being engaged and active in one's professional role, which also has implications for both overall life and work satisfaction.

The third factor had items that represented Cognitive Strategies or psychological self-care. Although the original framework proposed specific psychological strategies that were expected to load onto separate personal and professional self-care factors, factor analyses found that one factor emerged with cognitive/psychological strategies cutting across personal and professional life. This finding is not surprising given that cognitive strategies are internally focused strategies for regulating thoughts and emotions that can be applied across multiple life domains. Cognitive Strategies consisted of six items that originated from the personal dimensions of psychological and spiritual self-care and the professional dimension of psychological self-care. The items in this factor included monitoring workplace stress and emotions, having a proactive approach to managing challenges, and maintaining awareness of emotions and purpose. The conceptual literature emphasizes the significance of restructuring maladaptive cognitions, recognizing the rewards and challenges of therapeutic work, maintaining self-awareness, and engaging in emotional and psychological self-care (e.g., ACCA 2008; ACCA 2009; ACCA 2010; Norcross, 2000; Norcross & Guy, 2007). Research has consistently supported the importance of psychological self-care strategies in order to keep work demands in perspective and promote well-being across a variety of life domains (Rupert & Kent, 2007; Rupert et al., 2012). In the current study, higher scores on Cognitive Strategies were predictive of lower perceived stress, greater life satisfaction, lower emotional exhaustion, and greater sense of personal accomplishment. In light of the fact that personal and professional life interact and spillover, it is not surprising that the Cognitive Strategies factor cuts across and involves self-care in both personal and professional life.

Daily Balance was another factor that emerged in the self-care scale. Daily Balance included four items that originated from the personal dimension of psychological self-care and the professional dimension of work-life balance. The items in this factor included taking breaks, avoiding over-commitments, and being mindful throughout the day. In comparison to the Life Balance factor, the Daily Balance factor encompassed smaller-scale, micro-focused strategies that could be incorporated throughout the workday to manage obligations and responsibilities while maintaining awareness and replenishing resources. The conceptual literature has highlighted that important components of self-care include taking breaks throughout the workday, taking time for relaxation, and being mindful throughout the day (e.g., ACCA, n.d.-c; Baker, 2003; Norcross 2000; Wise et al., 2012). In the current study, Daily Balance was a significant predictor of lower perceived stress, lower emotional exhaustion, and fewer days of poor mental health. Together, the Daily Balance items represent smaller-scale strategies that are important for personal and professional well-being.

The fifth factor that emerged was Professional Support. Professional Support consisted of five items that all originated from the social dimension of professional self-care. These items encompassed strategies to foster interpersonal support and relationships in the workplace and to share both rewarding and stressful work experiences. The self-care literature highlights the importance of "cultivating and nurturing supportive relationships" (Norcross & Guy, 2007) and discusses social support as an important workplace resource for clinicians (e.g., Carroll et al., 1999). Additional literature on military clinical psychologists, professionals that are considered to be working under greater stress, emphasizes the critical role of professional support to respond to work

demands (e.g., Bertschinger, Snell, & Wilson, 2014). Previous empirical research has

found workplace support to be related to an increased sense of personal accomplishment

(e.g., Ackerley et al., 1988; Huebner, 1994; Lee et al., 2011; Rupert & Kent, 2007). The

empirical research, however, has revealed inconsistent findings regarding the relationship

between workplace support with emotional exhaustion and depersonalization (Rupert et

al., 2015). Some studies have found professional support to be related to lower emotional

exhaustion (e.g., Ackerley et al., 1988) and less depersonalization (Ben-Zur & Michael,

2007), while others have failed to find significant relationships (e.g., Rupert & Kent,

2007). Thus, although professional support does seem to be important, the empirical

literature highlights the complexity of the construct in relation to personal and

professional well-being outcomes.

The present study also revealed a complex relationship between Professional

Support and well-being. Initial correlational analyses indicated that this factor was

significantly correlated with the outcome measures in the expected directions; that is,

Professional Support was a significant predictor of lower stress, emotional exhaustion,

and depersonalization of clients. However, when Professional Support was entered into

the regression models with the other self-care factors, it significantly predicted greater

perceived stress, greater emotional exhaustion, and greater depersonalization. In other

words, the nature of the relationship between Professional Support and the outcomes was

reversed. This type of reversal is sometimes indicative of negative suppression, a

statistical effect that can occur when there is a strong relationship among predictor

variables. Further testing, however, indicated that a negative suppression effect did not

occur as the predictive validity of the other self-care factors did not increase when

entered into the regression model along with Professional Support. The lack of increase in the predictive validity of the other self-care factors may have been due to the fact that a large number of factors (eight) were entered as predictors of the well-being outcomes. Thus, a negative suppression effect for professional support may have been possible, but it was not significant with the current data. As understanding negative suppression effects can enhance the understanding of the relationships between the underlying constructs (Gaylord-Harden et al., 2010), future research should explore more about the relationship between professional support and the other self-care factors.

From a conceptual standpoint, Professional Support may function similar to other self-care factors to reduce stress and enhance professional life on an ongoing basis. In that sense, Professional Support may share considerable variance with these factors. On the other hand, Professional Support may function in unique ways. For example, it may serve as a reactive coping strategy for those who are under increased stress and are experiencing increased distress. In these instances, higher levels of Professional Support may be linked to poorer outcomes. This could explain the shift in the nature of the relationship between Professional Support and outcomes once the variance due to the other predictor is removed. Overall, the relationship between Professional Support and the outcome variables is a complex one and further research is needed to understand how Professional Support is used and how it may benefit the clinician.

The final three factors were Exercise, Diet, and Sleep. During the item development stage, it was hypothesized that these physical health items would end up loading onto one factor. The goal was then to retain the best performing exercise, diet, and sleep items to reflect the underlying construct of physical self-care. However,

statistical analyses indicated that exercise, diet, and sleep loaded onto three separate

factors each consisting of two items. The conceptual literature regarding self-care among

psychologists consistently emphasizes the importance of taking care of oneself physically

(e.g., ACCA 2008; ACCA 2009; ACCA 2010; Norcross & Guy, 2007). However, little

research has actually examined the role of physical health in relation to self-care and

well-being among psychologists. In the current study, the physical health factors were

less strongly correlated to the well-being outcomes. When entered into the regression

models along with the other self-care factors, the physical health factors showed little

predictive strength. Only Factor 6, Exercise, was a significant predictor of any of the

outcomes, predicting lower perceived stress and greater depersonalization. Exercise

predicted one well-being outcome in the expected direction (less perceived stress) but

also predicted one outcome in the opposite direction (greater depersonalization of

clients). Factors 7 and 8, Diet and Sleep, were not significant predictors of any of the

outcomes. Ultimately, based on the factor and validity analyses, these three factors

appeared to be the weakest of the eight factors.

Validity Analyses

To assess the validity of the self-care factors, the convergent and discriminant

validity were examined. The convergent validity of a measure is typically assessed by

examining the relationship between the new measure and another measure of the same

underlying construct or a theoretically similar construct. Unfortunately, no commonly

employed, psychometrically sound measure of self-care existed. In an attempt to provide

some comparison to another measure of the same construct, a four-item self-care measure

was adapted from Richards et al. (2010), which asked individuals to rate frequency of

participation in four types of self-care activities. However, the four self-care items had poor internal consistency and the total self-care score could not be used as a measure for convergent validity purposes. Convergent validity was thus assessed through evaluation of the relationship between self-care and other personal and professional well-being outcomes: perceived stress, satisfaction with life, burnout, days of poor mental health, days of poor physical health, and days of illness that interfered with usual activities.

All eight factors had significant correlations with the validity outcomes in the expected directions. The one exception to this is that none of the self-care factors were correlated with the two items assessing days of poor physical health and days of poor overall health. One might expect that self-care factors involving work-life balance, social, recreational or cognitive strategies would more directly impact psychological well-being rather than physical well-being. Interestingly, however, the physical self-care factors (diet, exercise, sleep) also failed to correlate with the physical health items. This may be due in part to the extreme skewedness and kurtosis of the two physical health items. These items may not have been sufficiently sensitive to detect effects and future research may benefit from more sensitive physical health measures.

The validity analyses and examination of the correlated correlation coefficients also revealed that the self-care factors were all more strongly related to the convergent validity measures as compared to the discriminant validity measure of social desirability. This is especially important because all the self-care items were positively worded and thus reflected desirable, socially valued activities. These results, however, indicate that the self-care measure was not just tapping into social desirability, which has important implications for the validity and utility of the measure.

In regards to the regression analyses, the first five factors (Life Balance, Professional Development, Cognitive Strategies, Daily Balance, Professional Support) all significantly predicted at least three of the well-being outcomes, which included perceived stress, satisfaction with life, burnout (emotional exhaustion, depersonalization of clients, and sense of personal accomplishment), and days of poor mental health. The five factors contributed unique variance to the regression model and were uniquely predictive of the personal and professional well-being outcomes. In sum, both individual correlational analyses and the regression analyses provide evidence that the first five factors consistently relate to positive outcomes.

The evidence supporting the physical self-care factors is less impressive. The individual correlations between Exercise, Diet, and Sleep and the outcome validity measures, although statistically significant, were consistently smaller as compared to the correlations between the first five factors and outcome measures. In the regression analyses, only Exercise was a significant predictor of any of the outcomes and it was actually predictive of greater depersonalization of clients. Overall, the three physical health factors were not as predictive of positive outcomes as the other self-care factors. Furthermore, as previously noted, some measure development literature argues against two-item factors and states that at least three items are needed to identify common variance (e.g., Anderson & Rubin, 1956; Comrey, 1988; Yong & Pearce, 2013).

Taken together, the validity analyses and the relationship of the self-care factors to the well-being outcomes provide good preliminary support for the validity of the first five factors. The self-care survey related more strongly to well-being outcomes than to social desirability and the scale was not just simply tapping into the desire to respond in a

socially acceptable way. The process of establishing the validity of the Personal and Professional Self-Care, however, will require continued assessment of the scale across different settings and in relation to other outcome variables.

Understanding Self-Care

Self-care has been discussed as a movement, process, set of principles, set of specific strategies, and ability. Specific definitions of self-care also vary based on the population of interest or the context in which it is being defined. Taken literally, self-care denotes care of oneself or the things a person can do to stay healthy and feel good. The self-care literature for psychologists considers both the unique demands of psychological work and the demands of trying to balance work and personal life in designing interventions and in offering recommendations for engaging in self-care. Based on the background literature, for the present study, self-care was defined a multi-dimensional, multi-faceted process of purposeful engagement in strategies that promote healthy functioning and enhance well-being. The results of this study are largely consistent with this definition and have important implications for how we understand self-care.

First, the findings support the notion that self-care is a multi-faceted process that cuts across all life domains. Psychologists face unique stressors and demands in their professional life. However, self-care is not just about maintaining a healthy work environment and managing work demands. It is also involves having a life outside of work. Although a two-factor structure consisting of personal and professional self-care was hypothesized, the statistical analyses found that an eight-factor, multi-dimensional structure best fit the data. Some of the factors encompassed strategies that were more personal while other factors encompassed strategies that were more professional. Other

factors, however, included strategies that cut across both life domains. The findings and

resulting factor structure highlight the fact that personal and professional lives are

interdependent. This finding is consistent with the theoretical and empirical literature,

which emphasizes the fact that the personal and professional domains interact and

spillover (e.g., Duncan & Goddard, 1993; Grzywacz & Marks, 2000; Stevanovic &

Rupert, 2009).

The findings also suggest a meaningful approach to categorizing and

conceptualizing self-care activities. The conceptual literature has largely grouped self-

care activities into areas of life or themes, such as spiritual self-care, recreational self-

care, social self-care, physical self-care, and professional self-care. Within each of these

areas of life, a breadth of activities or strategies is considered based on an individual's

needs and preferences. Consistent with this, the present study found that the self-care

items clustered into meaningful factors that represented different areas or aspects of life.

Self-care not only involved activities that cut across both personal and professional lives,

but it also involved a range of different types of activities. The present results suggest that

the varied self-care activities can be meaningfully conceptualized into five areas: Life

Balance, Professional Development, Cognitive Strategies, Daily Balance, Professional

Support. It is thus useful to organize self-care activities into these general areas in

thinking about and assessing psychologists' engagement in self-care.

In addition, the present findings support that the notion that self-care is best

understood as a proactive, ongoing process that involves purposeful action and self-

awareness of one's needs. In this study, the potential scale items that were more

reactionary dropped out during the factor analysis process (e.g., I seek guidance or

counseling when necessary; I take extra time to rest when I am not feeling well; I share my feelings with others during stressful times in my life). The remaining scale items primarily focused on activities that involved purposeful actions carried out on a more ongoing basis (e.g., I spend time with family or friends; I take part in work-related social and community events; I try to be aware of my feelings and needs).

The present findings raise two interesting questions regarding self-care that require further investigation. The first involves the relevance of physical self-care to the assessment of professional self-care. The three physical self-care factors, Exercise, Diet, and Sleep, did not load on one physical care factor (as hypothesized), had the lowest Eigenvalues, and did not predict outcomes as expected. Furthermore, the confirmatory factor analysis established that the five-factor model, which omitted the three physical self-care items, had a good fit for the data. However, this should not be interpreted to mean that physical self-care is not important. From a Maslow's hierarchy of needs perspective, the physiological needs such as sleep, food, and drink are considered the most basic, fundamental needs required for the human body to function. Without meeting these physical needs, self-care strategies related to a higher level of social and psychological well-being cannot be employed. For a measure of professional self-care, however, assessing activities that relate to these lower level, physical health needs may not be as relevant as assessing activities that satisfy social, psychological, or emotional needs. Additionally, physical self-care is a complex and involved construct. Physical self-care is likely to vary across individuals based on factors such as health status, age, and personal preference. Thus, the complexity of physical self-care may not be adequately assessed in a small number of questions.

Rather than ignoring physical self-care, researchers may consider alternative approaches to assessing physical self-care. One proposal may be to assess physical self-care separately through a more specific, detailed measure of diet, sleep, and exercise activities. A separate measure of physical self-care may more accurately assess the various facets of physical self-care while taking into account each individual's differing health status. Overall, in creating a self-care scale for professional psychologists, it may be more appropriate and important to target activities in more social, emotional, or psychological domains rather than diet, exercise, and sleep.

The current findings also raise some interesting questions about the role of Professional Support that require further study. Although the theoretical and anecdotal research consistently emphasize the importance of Professional Support, the empirical findings are more mixed. As discussed previously, Professional Support may serve a number of functions; it may be used proactively to prevent distress and negative outcomes or it may also be used as a coping strategy in reaction to increased stress and distress. In cross-sectional research, this may lead to the appearance of some contradictory relationships. Research investigating the relationship between Professional Support and the other self-care factors has important implications for understanding this factor as well as developing interventions that encourage self-care for psychologists. Thus, additional research is required to investigate the role of Professional Support for psychologists.

In sum, this personal and professional self-care measure takes into account the unique demands of psychological work and highlights the importance of self-care in personal and professional life. Rather than being conceptualized as occurring in two

distinct domains, self-care is better thought of as cutting across all areas of life. The self-care findings reveal that personal and professional lives are interdependent and spillover to influence one another, which is consistent with the literature. Self-care is a continuous process and a holistic, preventative approach to ensuring one's well-being in all areas of life. Although self-care behaviors may change in the face of stress or evolve over time, awareness of one's needs and proactive response allows for participation in relevant self-care strategies and adjustment of these strategies as needed.

Limitations and Future Research

The present study has several limitations that need to be considered in interpreting the preceding findings and in planning future research. First, the survey response rate and the population studied pose limits to the generalizability of the results. The survey response rate was about 29%. Thus, the psychologists who responded may have been inherently different from those who did not respond. Demographic data for the study sample do suggest that participants were similar in many respects (e.g., age, experience, gender and racial background) to participants in other large sale surveys of psychologists. However, it is certainly possible that those who chose to complete the survey may have differed from other psychologists in subtle ways; for example, the population may have had a greater interest in self-care or professional issues. Additionally the population sampled was a group of licensed clinical psychologists in the state of Illinois, and it was expected that the findings would generalize to psychologists from other regions of the United States, which may not be the case. Finally, the generalizability of the results may be limited as the sample was primarily white (87.2%) and women (69.9%) and caution should be taken in generalizing the findings to more demographically diverse groups.

Future research needs to replicate the factor structure and explore the validity of the scale with a broader, more diverse participant pool. Later research may also employ the self-care scale with other populations of mental health professionals at different levels of training and experience. Furthermore, research conducted with mental health professionals that work in different settings or with challenging clients would be helpful in identifying the important aspects of self-care for these professionals. Ultimately with greater knowledge regarding the construct of self-care and its implications, psychologists will be better prepared to participate and advocate for self-care both in and outside the workplace.

A second limitation relates to the reliance on self-report measures. As the goal was to develop a self-report measure of self-care, it was important to assess self-care through a self-report modality. However, the validity measures were also all self-report and the results could have been influenced by common method variance. That is, the correlations between self-care factors and well-being outcomes may have been inflated due to the variance shared by the common measurement method. Although the variability in strength of correlations (e.g., self-care factors correlated more strongly with outcomes than the social desirability measure) indicates that shared or common method variance most likely did completely not account for significant relationships, future research may benefit from the inclusion of other methodologies for data collection. For example, studies may employ other types of well-being measures and modalities of assessment such as co-workers ratings or records of absenteeism. Further research using a multi-method approach to assessment of self-care and related constructs is important in gathering additional empirical support for the validity of the self-care scale and factors.

Additionally, a related limitation is that the present study focused only on the validity of individual self-care factors. By measuring the self-care factors separately, the self-care factor scores could be used to provide profiles or patterns of self-care, highlight the most effective strategies, and indicate where to target interventions. Although these factors are related, the present study did not explore the appropriateness of computing an overall self-care score. If valid, a total score would allow for calculation of a single self-care score that could reflect a psychologist's general level self-care. Thus, future research is needed to determine whether the computation of an overall self-care score is appropriate and useful.

A final limitation relates to the use of a cross-sectional methodology. Although this study employed regression models to examine whether self-care factors predicted certain well-being outcomes, the cross-sectional and correlational nature of the study makes it impossible to draw conclusions about causality. The present study conceptualized self-care as a causal factor leading to good outcomes such as lower perceived stress, greater life satisfaction, and less burnout. Instead, it may be that lower perceived stress, greater life satisfaction, and less burnout are predictive of greater participation in self-care. Over time, it is also likely that the relationship between self-care and life outcomes is reciprocal. Future research should use longitudinal designs with demographically diverse populations in order to more thoroughly and completely understand the relationship between self-care and well-being.

Conclusion

Despite these limitations, the current study represents an important first step in the development of a measure of self-care for psychologists. There has recently been a

marked increase in interest surrounding the construct of self-care in clinical psychology, particularly on the ethical implications and consequences of inadequate self-care. Unfortunately, the lack of a valid, quantitative measure of self-care has impeded research aimed at understanding self-care and identifying effective self-care strategies. This study was a first step in the measurement development process and paves the way for future research that will allow for the systematic study of self-care and help provide empirically based, practical suggestions.

The use of both exploratory and confirmatory factor analytic procedures allowed for the emergence of the most appropriate factor structure and the identification of items that best reflected these factors. The results suggest that, at least for the current sample of clinical psychologists, the self-care scale items group together into interpretable, reliable factors. Correlational analyses also indicated that five of these factors were consistently associated with important well-being outcomes. Specifically, these results provide support for the validity of the following factors: Life Balance, Professional Development, Cognitive Strategies, Daily Balance and Professional Support. The importance of these factors is consistent with the notion that self-care is a multi-dimensional process involving activities in both personal and professional life.

The results of both the factor analyses and validity analyses support a self-care scale with five factors encompassing 28 items. Thus, from both a theoretical and statistical perspective, a five-factor model seems most appropriate. Because two distinct personal and professional factors did not emerge, it also seems appropriate to shorten the title of the scale to "The Professional Self-Care Scale." Although the scale includes items that pertain to both personal and professional life, the scale is targeted for use with

mental health professionals and thus this title more accurately reflects the overall purpose of the scale. The Professional Self-Care Scale resulting from this study is included in Appendix C.

The study of professional self-care relies on an adequate assessment tool, and the development and initial validation of the Professional Self-Care Scale is an important first step in allowing professionals to assess self-care and to promote well-being in and outside the work environment. Further research is necessary to replicate the factor structure and provide further evidence for the validity of the self-care factors with different groups of psychologists and with other mental health professionals. Such research is important for refining the self-care scale and improving its validity and generalizability. In addition, research aimed at refining this scale may also contribute to a better understanding of self-care and of the predictors and outcomes of self-care. Ultimately, more knowledge will be helpful in offering specific self-care recommendations and developing ways of promoting self-care for mental health professionals.

APPENDIX A

EXPERT ITEM EVALUATION FORM

Thank you for agreeing to provide feedback regarding potential self-care items.

For the purposes of the item evaluation, please refer to the following definition of self-care:

Self-care is a multi-dimensional, multi-faceted process of purposeful engagement in strategies that promote healthy functioning and enhance well-being. Self-care strategies for professionals occur in two domains of life: the personal domain and the professional domain. The personal self-care strategies include activities in the physical, psychological, spiritual, social, and recreational dimensions of experience. The professional self-care strategies include behaviors in the psychological, social, work-life balance, and developmental dimensions of experience.

The potential items are organized within the personal or professional dimensions that they represent. For each item, we would like you to do four things:

1. Rate the clarity of the item. Using the **1 to 7** scale below, simply write the appropriate number in column 1 to indicate your rating.

2. Rate the relevance of the item to the dimension it represents. Again using the **1 to 7** scale below, simply write the appropriate number in column 2 to indicate your rating.

3. In column 3, indicate Y (yes) or N (no) to reflect your judgment as to whether the item should be included.

4. Offer comments or suggested item revisions if you wish.

At the end of each dimension, I have provided space to make general comments or add items. Finally, at the very end of this packet I have included the directions for participants and scaling method that will be used in assessing self-care. I would greatly appreciate any feedback on the directions and scaling method overall, in addition to your work with specific items.

Rating Scale for Clarity and Relevance:

1----------------2----------------3----------------4----------------5----------------6----------------7
Not at all clear/relevant   Extremely clear/ relevant

Thank you for you for participation. I greatly appreciate your time and effort!

Personal Self-Care: Engaging in practices outside the workplace that foster holistic health and well-being.

- **Physical:** Supporting physical care of the self and optimizing physical function and safety. (15)

Item	1. Clarity Not at all to Extremely (1) (7)	2. Relevance Not at all to Extremely (1) (7)	3. Include Y or N	4. Comments/ Suggestions
1. I make an effort to get enough sleep each night.				
2. I feel rested, alert and able to function during the day.				
3. I get at least 6 hours of sleep each night.				
4. I watch my diet to ensure that I am practicing healthy eating habits.				
5. I eat a balanced and healthy diet.				
6. I consume a healthy balance of fruits, vegetables, grain, fats, and protein.				
7. I avoid unhealthy foods.				
8. I take a responsible approach to substance use.				
9. I monitor my substance use to ensure that it does not exceed recommended levels.				
10. I participate in physical activity, such as stretching, aerobic activity or strength conditioning.				
11. I follow a planned exercise program.				
12. I make physical activity part of my regular routine.				
13. I take extra time to rest when I am not feeling well.				

Item				
14. I see a doctor or other medical professional when I have health concerns.				
15. I have regular medical check-ups.				

Additional Comments or Feedback:

Personal Self-Care: Engaging in practices outside the workplace that foster holistic health and well-being.

- **Psychological:** Maintaining a positive and compassionate view of the self; negotiating external and internal demands; identifying, accepting, and expressing a range of emotions. (11)

Item	1. Clarity Not at all to Extremely (1) (7)	2. Relevance Not at all to Extremely (1) (7)	3. Include Y or N	4. Comments/ Suggestions
1. I make a conscious effort to appreciate positive things in my life.				
2. I deal with negative emotions by changing the way I think about the situation.				
3. I use my sense of humor to keep things in perspective.				
4. I seek guidance or counseling when necessary.				
5. I avoid perfectionistic and self-critical thoughts.				
6. I take some time for relaxation each day.				
7. I try to be mindful of my feelings, needs, and desires.				
8. I seek out activities or people that are comforting to me.				
9. I cultivate an attitude of self-acceptance.				

Item	1. Clarity Not at all to Extremely (1) (7)	2. Relevance Not at all to Extremely (1) (7)	3. Include Y or N	4. Comments/ Suggestions
10. I take time to "smell the roses", to appreciate and be fully in the present moment.				
11. I share my feelings with others during stressful times in my life.				

Additional Comments or Feedback:

Personal Self-Care: Engaging in practices outside the workplace that foster holistic health and well-being.

- **Spiritual:** Searching for meaning and purpose in life, which may or may not be related to religion. It entails connection to self-chosen and or religious beliefs, values, and practices. (4)

Item	1. Clarity Not at all to Extremely (1) (7)	2. Relevance Not at all to Extremely (1) (7)	3. Include Y or N	4. Comments/ Suggestions
1. I spend time in prayer, personal reflection, or some type of spiritual activity.				
2. I attend to my personal religious or spiritual needs.				
3. I make an effort to find spiritual connections in my life.				
4. I find ways to enhance a sense of purpose in my life.				

Additional Comments or Feedback:

Personal Self-Care: Engaging in practices outside the workplace that foster holistic health and well-being.

- **Social:** Building and sustaining meaningful, positive relationships. Developing a sense of connection, belonging, and support. (5)

Item	1. Clarity Not at all to Extremely (1) (7)	2. Relevance Not at all to Extremely (1) (7)	3. Include Y or N	4. Comments/ Suggestions
1. I spend time with people whose company I enjoy.				
2. I spend time with family or friends.				
3. I spend time with significant others.				

Item				
4. I discuss my feelings and concerns with people close to me.				
5. I find ways to foster a sense of social connection and belonging in my life.				

Additional Comments or Feedback:

Personal Self-Care: Engaging in practices outside the workplace that foster holistic health and well-being.

- **Recreational:** Encouraging participation in enjoyable activities that promote relaxation, rejuvenation, or encourage creativity. (5)

Item	1. Clarity *Not at all to Extremely* *(1) (7)*	2. Relevance *Not at all to Extremely* *(1) (7)*	3. Include *Y or N*	4. Comments/ Suggestions
1. I take time for recreational or leisure activities.				
2. I take part in personally fulfilling leisure activities.				
3. I engage in a hobby, recreational, or social activity that I enjoy.				
4. I make time to engage in leisure activities regardless of my workload.				
5. I set aside time to relax and unwind.				

Additional Comments or Feedback:

Professional Self-Care: Engaging in practices that promote commitment to maintaining one's effectiveness and balance in the professional role.

- **Psychological:** Awareness of and reflection on work-related thoughts and emotions. Making an effort to mitigate any stress or hazards at work while maintaining profession identity and values. (11)

Item	1. Clarity *Not at all to Extremely* *(1) (7)*	2. Relevance *Not at all to Extremely* *(1) (7)*	3. Include *Y or N*	4. Comments/ Suggestions
1. I put aside thoughts about clients outside of work.				
2. I reflect on the impact that my professional experiences have on me.				

Item				
3. I reflect on the satisfying experiences of work.				
4. I try not to take the ups and down of my work too personally.				
5. I am mindful of triggers that increase professional stress.				
6. After a difficult day, I take time to connect to my roles outside of being a psychologist.				
7. I make a proactive effort to manage the challenges of my professional work.				
8. I balance the amount of time I think about successful and frustrating cases.				
9. I try to re-frame challenges into a larger perspective of experience.				
10. I monitor my feelings and reactions to clients.				
11. I set limits on the number of high-risk clients I see.				

Additional Comments or Feedback:

Professional Self-Care: Engaging in practices that promote commitment to maintaining one's effectiveness and balance in the professional role.

- **Social:** Maintaining a professional social support system (7)

Item	1. Clarity *Not at all to Extremely* *(1) (7)*	2. Relevance *Not at all to Extremely* *(1) (7)*	3. Include *Y or N*	4. Comments/ Suggestions
1. I share work-related stressors with trusted colleagues.				
2. I maintain a professional support system.				
3. I seek consultation or supervision when professionally challenged.				

Item	1. Clarity	2. Relevance	3. Include	4. Comments/ Suggestions
4. I avoid workplace isolation.				
5. I cultivate professional relationships with my colleagues.				
6. I take part in work-related social and community events.				
7. I share work successes with colleagues.				

Additional Comments or Feedback:

Professional Self-Care: Engaging in practices that promote commitment to maintaining one's effectiveness and balance in the professional role.

- **Work-Life Balance:** Managing demands at work and balancing personal and professional life. (15)

Item	1. Clarity *Not at all to Extremely* *(1) (7)*	2. Relevance *Not at all to Extremely* *(1) (7)*	3. Include *Y or N*	4. Comments/ Suggestions
1. I set realistic goals for myself regarding my professional work.				
2. I make adjustments such as limiting caseload in the face of professional stressors.				
3. I maintain a sense of control over work responsibilities.				
4. I take breaks throughout the workday.				
5. I reserve work tasks for work hours.				
6. I take regular vacations.				
7. I establish boundaries between personal and professional life.				
8. I maintain a balance between personal and professional life.				
9. I maintain appropriate professional boundaries with my clients.				
10. I plan my work activities to include activities that interest me.				

Item				
11. I maximize time in professional activities I enjoy.				
12. I avoid over-commitment to work responsibilities.				
13. I plan my workday.				
14. I create a comfortable work environment for myself.				
15. I delegate or simplify the business aspects of my practice when possible.				

Additional Comments or Feedback

Professional Self-Care: Engaging in practices that promote commitment to maintaining one's effectiveness and balance in the professional role.

- **Developmental:** Encouraging development of professional life and skills. (7)

Item	1. Clarity *Not at all to Extremely* *(1) (7)*	2. Relevance *Not at all to Extremely* *(1) (7)*	3. Include *Y or N*	4. Comments/ Suggestions
1. I participate in activities that promote my professional development.				
2. I seek out new work experiences.				
3. I choose clinical activities that interest me.				
4. I connect with organizations in my professional community that are important to me.				
5. I create variety in my workday when possible.				
6. I find ways to stay current in professional knowledge.				
7. I find ways to cultivate greater autonomy or freedom in my work.				

Additional Comments or Feedback:

Last Evaluation!

For the self-care scale, participants will be asked to evaluate their frequency of participation in each personal or professional self-care behavior. Feel free to offer comments or feedback regarding the scaling method to be used, which is as follows:

Directions for participants: These questions below contain statements about your self-care or personal activities. Please use the scale below to indicate how often you engage in each behavior.

1----------------2----------------3----------------4----------------5----------------6----------------7
Never   Always

Comments or Feedback:

APPENDIX B

EIGENVALUES, PARALLEL ANALYSES, AND SCREE PLOT

Initial Eigenvalues

Factor	Total	% of Variance	Cumulative %
1	12.924	25.848	25.848
2	3.939	7.878	33.727
3	2.339	4.677	38.404
4	2.053	4.106	42.510
5	1.998	3.995	46.505
6	1.636	3.271	49.777
7	1.585	3.169	52.946
8	1.370	2.740	55.686
9	1.233	2.466	58.152
10	1.142	2.284	60.437
11	1.068	2.137	62.573
12	1.040	2.080	64.654

Parallel Analysis

Factor	Estimated Sum of Squares Total Eigenvalue	Initial Eigenvalue	Parallel Analysis Mean	Parallel Analysis Upper 95%
1	12.476	12.924	0.86104	0.94167
2	3.593	3.939	0.78677	0.84496
3	1.931	2.339	0.73050	0.78227
4	1.772	2.053	0. 68228	0.72704
5	1.547	1.998	0.63913	0.67950
6	1.252	1.636	0.59934	0.64060
7	1.094	1.585	0.56252	0.60213
8	1.028	1.370	0.52797	0.56334
9	.829	1.233	0.49505	0.52918
10	.672	1.142	0.46261	0.49679
11	.585	1.068	0.43218	0.46451
12	.526	1.040	0.40268	0.43224
13	-	.944	0.37417	0.40463
14	-	.926	0.34704	0.37836

Number of simulated samples: 1000
Eigenvalues at percentile: 95.0

Scree Plot
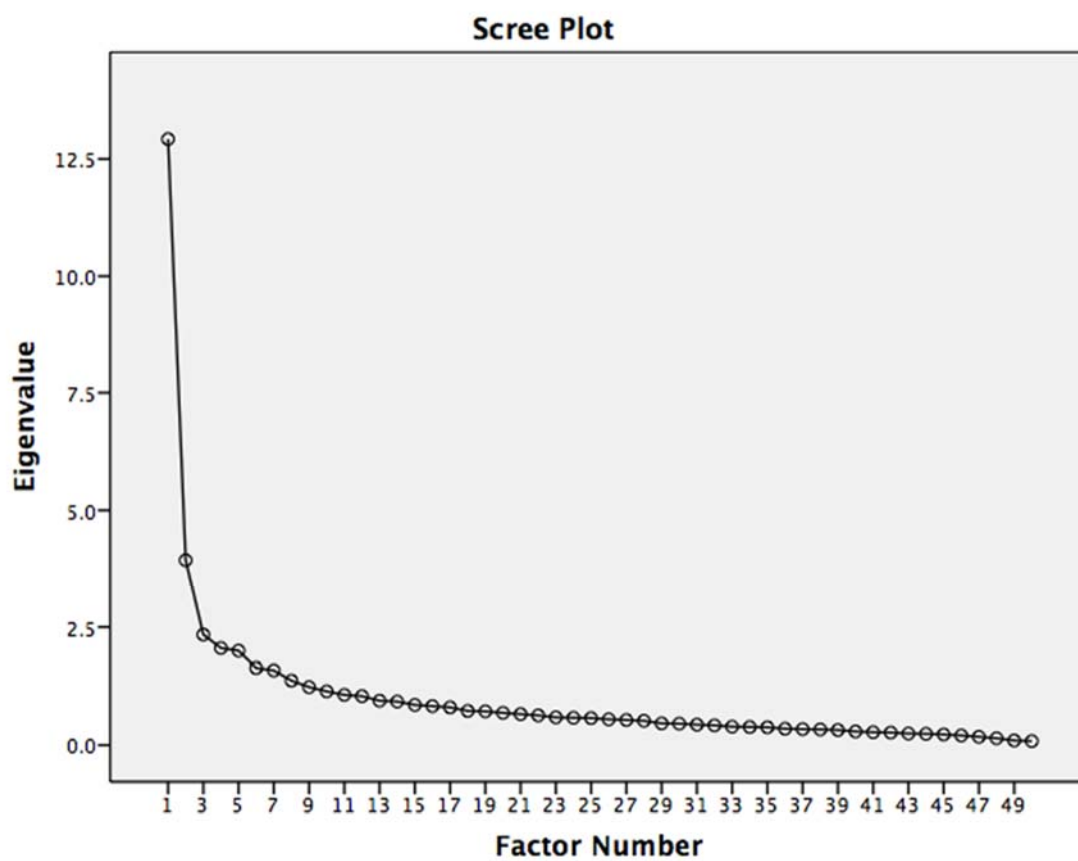
APPENDIX C

RECOMMENDED SCALE FOR FUTURE RESARCH

Professional Self-Care Scale

Instructions: The items below contain statements about your personal and professional activities. Some of the items may seem repetitive, but please answer each item separately, as honestly and accurately as you can.

Please use the following scale to indicate how often you engage in each activity.

How Often: 1   2   3   4   5   6   7
　　　　　　Never
　　　　Always

1. I spend time with people whose company I enjoy.
2. I maintain a professional support system.
3. I take part in work-related social and community events.
4. I take breaks throughout the workday.
5. I participate in activities that promote my professional development.
6. I cultivate professional relationships with my colleagues.
7. I find ways to foster a sense of social connection and belonging in my life.
8. I am mindful of triggers that increase professional stress.
9. I seek out activities or people that are comforting to me.
10. I connect with organizations in my professional community that are important to me
11. I make a proactive effort to manage the challenges of my professional work.
12. I take time to "smell the roses," to appreciate and be fully in the present moment.
13. I avoid workplace isolation.
14. I spend time with family or friends.
15. I find ways to enhance a sense of purpose in my life.
16. I find ways to stay current in professional knowledge.
17. I share positive work experiences with colleagues.
18. I take time for recreational or leisure activities.
19. I try to be aware of my feelings and needs.
20. I take some time for relaxation each day
21. I try to not let my work interfere with my family or personal life.
22. I plan my work activities to include activities that interest me.
23. I avoid over-commitment to work responsibilities.
24. I monitor my feelings and reactions to clients.
25. I maintain a balance between personal and professional life.
26. I share work-related stressors with trusted colleagues.
27. I maximize time in professional activities I enjoy.
28. I try not to take the ups and down of my work too personally.

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