



AMERICAN UNIVERSITY OF BEIRUT

THE COST OF HELPING: THE RELATIONSHIP BETWEEN  
SELF-COMPASSION AND BURNOUT AMONG HEALTHCARE  
PROFESSIONALS IN LEBANON

by  
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A thesis  
submitted in partial fulfillment of the requirements  
for the degree of Master of Arts  
to the Departments of Psychology  
of the Faculty of Arts and Sciences  
at the American University of Beirut

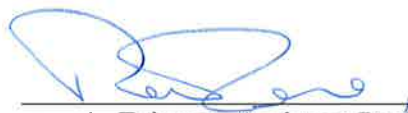
Beirut, Lebanon  
January, 2019

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## ACKNOWLEDGMENTS

I would like to express my deepest gratitude to the people who were instrumental in the completion of my thesis. First, I would like to extend my warm and sincere gratitude to my thesis advisor and committee chair, Dr. Pia Zeinoun, for her unwavering support, invaluable guidance, and patience in seeing this thesis come to completion. I would like to thank my committee members, Dr. Tania Bosqui and Dr. Hala Darwish for their time and their insightful comments. I am also thankful for Dr. Joachim Diederich for his valuable feedback, which contributed in shaping my thesis study during its initial phases.

To my family and friends, thank you for all your unconditional support and love.

Last but not least, I would like to thank my participants, the healthcare professionals who have dedicated their lives to helping others and to whom this study is for. Thank you.

## AN ABSTRACT OF THE THESIS OF

Zeena Yassin Hashem

for

Master of Arts

Major: Clinical Psychology

Title: The Cost of Helping: The Relationship Between Self-Compassion and Burnout among Healthcare Professionals in Lebanon

Due to the nature of their occupation, healthcare professionals, nurses, physicians, and psychologists, are prone to experience burnout - a psychological syndrome resulting from chronic interpersonal stressors at work, and characterized by exhaustion, cynicism towards patients, and decreased quality of care (Maslach, Schaufeli, & Leiter, 2001). Although there are several individual differences, which impact the development of burnout, a new variable, self-compassion has recently been investigated. Self-compassion refers to the non-judgmental observation of one's own pain and failure while understanding that they are part of being human (Neff, 2003b). This study aimed to understand the extent to which self-compassion can predict lower levels of burnout in this population. We administered an online survey to a convenience sample of healthcare professionals working in two major Lebanese hospitals ( $N = 90$ ), using psychometrically robust tools. Results indicated that our sample reports a high degree of burnout and average levels of self-compassion. High burnout levels were significantly associated with being female, working long hours, and having unhealthy eating habits. Importantly, self-compassion was found to significantly predict all components of burnout, above and beyond socio-demographic and occupational variables. These findings can help in designing possible future interventions that might help to deal with burnout at the workplace by incorporating self-compassion-related interventions.

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# CHAPTER I

## INTRODUCTION

Healthcare professionals, such as primary care physicians, nurses, and psychotherapists, share a common ethos of treating ill clients and patients, through close interactions with them. While this might be rewarding (Bria, Băban, & Dumitrașcu, 2012), these healthcare professionals are also more prone to experiencing burnout, which is loosely defined as physical and emotional exhaustion (Maslach, Schaufeli, & Leiter, 2001). This is thought to be due to the particular challenges of their occupation that require close interpersonal interactions with clients (Hailey, 2015). However, there are individual differences in the extent to which healthcare professionals are susceptible to exhaustion, and one of those differences is presumed to be the degree to which a person is compassionate towards themselves (Montero-Merin et al., 2016)

## CHAPTER II

### LITERATURE REVIEW

#### **A. Conceptualizing Burnout**

“Burnout” is a broad construct that has been defined in different ways (Maslach, Schaufeli, & Leiter, 2001), including a prolonged job tension (Cherniss, 1980), a progressive loss of idealism, energy, and purpose (Edelwich & Brodsky, 1980), and an exhaustion of one’s physical and mental resources due to unrealistic expectations set by one’s self or society (Freudenberger & Richelson, 1980). However, the most widely used definition of burnout, and the one I will be using in this paper, comes from Maslach and Jackson (1986), who define it as a syndrome that is characterized by (1) exhaustion, (2) cynicism, and (3) inefficacy among people involved in occupations that require interpersonal interactions. First, exhaustion reflects being depleted of one’s emotional and physical resources (Maslach, Schaufeli, & Leiter, 2001). Second, cynicism is related to a negative or excessively detached response to various aspects of one’s job, and third, professional inefficacy reflects feelings of incompetence and lack of achievement or productivity in one’s job (Maslach, Schaufeli, & Leiter, 2001).

These dimensions of burnout were developed using both conceptual and psychometric considerations (Maslach, Schaufeli, & Leiter, 2001). Conceptually, early research on burnout was exploratory and relied heavily on qualitative techniques, such as interviews, aimed at describing and defining the characteristics of burnout (Maslach &

Jackson, 1981). Based on this exploratory research, Maslach and Jordan (1981) introduced their trifold conceptualization of burnout, which they used to develop the Maslach Burnout Inventory (MBI) to assess and measure their hypothesized definition. Studies on multiple samples showed that the MBI yields a 3-factor structure consistent with the trifold definition of burnout (Maslach & Leiter, 1981). The MBI is now considered the standard tool for measuring burnout, and has also been translated and validated in many languages (Maslach, Schaufeli, & Leiter, 2008).

Although burnout can be experienced among people in different settings, such as students (Fong & Loi, 2015) and among helping professionals in general, such as clergy (Barnard & Curry, 2011), it has been more extensively studied among healthcare professionals, including nurses (Duarte, Pinto-Gouveia, & Cruz, 2015), residents (Osion, Kemper, & Mahan, 2014) and other health care professionals (Beaumont, Durkin, Hollins-Martin, & Carson, 2015; Raab, Sogge, Parker, & Flament, 2015). It has been well established that these professionals are more prone to experience burn-out than people whose occupations do not require them to deal with people experiencing any form of physical or mental suffering (Bria, Băban, & Dumitrașcu, 2012; Hailey, 2015; Maslach & Leiter, 2016; Maslach, Schaufeli, & Leiter, 2001; Montero-Merin et al., 2016). Recent studies have found that 20-60% of physicians, belonging to different specialties, have reported symptoms of burnout (Montero-Merin et al., 2016), and that one-third of primary care professionals exhibit high levels of burnout (Navarro-González, Ayechu-Díaz, & Huarte-Labiano, 2015).

Burn-out can have detrimental consequences on the healthcare worker, the client, and the organization at large. At the level of the worker, those who experience burn-out

report psychosomatic symptoms, such as headaches, ulcers, and insomnia, alcohol or substance abuse, and increased familial and social conflicts (Farber, 1990). Burnout can also negatively affect the empathy and communication in the patient-professional relationship, which may increase the propensity for medical errors and result in poorer patient safety and outcomes (Montero-Merin et al., 2016). Finally, burnout has also been associated with increased absenteeism, and turnover, which translates into increased costs for organizations (Maslach, Schaufeli, & Leiter, 2001). Therefore, it is imperative to understand the variables that contribute to burnout, as this will help develop mechanisms of reducing burnout and consequently its impact on the organization, worker and client.

## **B. Theoretical Underpinnings of Burnout**

Although defining burnout and understanding its impact and epidemiology is important, it is equally imperative to understand its hypothesized and developmental trajectories. Multiple etiologies have been proposed (Bakker & Demerouti, 2007; Hobfoll & Freedy, 1993), but the most relevant conceptualization of burnout in this paper is that of Leiter and Maslach (1998), which emphasizes that the first sign of burnout is exhaustion, which often results from having a demanding job and working long hours. This is thought to lead to exhaustion, which would then result in a sense of detachment and negative reactions towards the job and towards people with which the individual works and others, characteristic of cynicism. If these issues were not resolved, then this would result in feelings of inadequacy and failure, which can make the person doubt his/her to help others, leading to professional inefficacy. (Maslach & Leiter, 2016).

## **C. The Relation Between Burnout and Other Constructs**

### ***1. Burnout and Individual Variables***

#### **a. Demographics**

Burnout has been studied in relation to a number of individual variables, including age, work experience, sex, marital status, and education (Bria, Băban, & Dumitrașcu, 2012; Maslach, Schaufeli, & Leiter, 2001). Of all these variables, age remains to be the one that is most consistently related to burnout, whereby burnout is thought to be more prevalent among younger individuals than those who are 30 to 40-years old (Maslach, Schaufeli, & Leiter, 2001; Talih, Warakian, Ajaltouni, Shehab, & Tamim, 2016). It is important to keep in mind, however, that work experience might be a confounding variable, since older people usually have more experience in dealing with work-related stressors than younger people who have just joined the work force (Maslach, Schaufeli, & Leiter, 2001).

Studies on gender differences are mixed. While some studies have found that females are more likely than males to experience burnout (Ashkar, Romani, Musharrafieh, & Chaaya, 2010; Elbarazi, Loney, Yousef, & Elias, 2017; Mor & Laliberte, 1984; Poulin & Walter, 1993; Sabbah, Sabbah, Sabbah, Akoum, Droubi, 2012), others have found that sex is not a strong predictor of burnout (Bria, Băban, & Dumitrașcu, 2012; Maslach, Schaufeli, & Leiter, 2001). It has been argued, however, that the only consistent sex difference is that males usually score higher on “cynicism” than females, while females score higher on “exhaustion” than among males (Maslach, Schaufeli, & Leiter, 2001). In addition, it has been found that those who are unmarried, particularly men, are more likely to experience

burnout than those who are, and that single people report higher levels of burnout than those who have been single people are much more likely to experience burnout than those who are married and those who have been divorced (Maslach, Schaufeli, & Leiter, 2001).

Level of education has also been found to be related to burnout, whereby those who have a higher level of education are more likely to experience burnout than those who are less educated (Maslach, Schaufeli, & Leiter, 2001). However, it is not clear whether this finding is strictly related to the level of education or whether education is confounded with other variables, since people who have a higher level of education usually have jobs with greater responsibilities and higher levels of stress (Maslach, Schaufeli, & Leiter, 2001). It might also be that people with higher levels of education have higher expectations regarding their job and career, and so, are more likely to experience significant distress if these expectations are not met (Maslach, Schaufeli, & Leiter, 2001).

b. Individual Differences

Differences across an individual's personality characteristics and behaviors have also been associated with variability in burnout. People who exhibit low levels of hardiness, which refers to one's involvement in daily activities, their sense of control over situations, and their openness to change, have higher levels of burnout than those with higher levels of hardiness (Maslach, Schaufeli, & Leiter, 2001). People who attribute situations and performance to external factors (i.e. have an external locus of control), such as chance or luck, rather than to their own ability and effort (i.e. internal locus of control), are more likely to experience burnout (Maslach, Schaufeli, & Leiter, 2001).



Moreover, people who employ a passive and defensive style of coping when facing stressors are more likely to experience burnout than those who employ a more active and confrontational style. It was also found that among all the Big Five personality dimensions, neuroticism, which reflects emotional instability and one's disposition to experience psychological distress, is the one that is most consistently related to burnout (Maslach, Schaufeli, & Leiter, 2001). In addition, those with Type-A behavior (i.e. competitive, hostile, have a high need for control) are more likely to experience burnout than those with Type-B behavior (Maslach, Schaufeli, & Leiter, 2001).

#### **D. Burnout in the Arab Region**

There is limited research on the psychological well-being of healthcare professionals in the Arab region. A systematic review (Elbarazi, Loney, Yousef, & Elias, 2017) consisting of nineteen studies estimated the prevalence of burnout among healthcare professionals in 7 Arab countries (Bahrain, Egypt, Jordan, Lebanon, Palestine, Saudi Arabia, and Yemen) and examined what individual and work-related factors are associated with it. Results show that there appears to be a moderate-to-high prevalence of burnout, but that the prevalence estimates of each of the 3 components varied across different studies both within- and between- countries (Elbarazi, Loney, Yousef, & Elias, 2017). For instance, two studies that examined burnout among doctors and nurses in Lebanon showed that there are high levels of emotional exhaustion and cynicism, while a third study also done on doctors and nurses in Lebanon found that the prevalence of emotional exhaustion and cynicism was very low (Elbarazi, Loney, Yousef, & Elias, 2017). The authors who conducted the review attributed this disparity in the results to differences in individual and

occupational factors within- and between- countries, such as the work environment, management styles, individual attitudes, coping styles, and personality characteristics (Elbarazi, Loney, Yousef, & Elias, 2017). Specifically, the authors found that being female, being an expatriate, working more than 40 hours, working in the public sector, and having night and/or rotating shifts were all significantly related with higher levels of burnout (Elbarazi, Loney, Yousef, & Elias, 2017).

Moreover, the study (Elbarazi, Loney, Yousef, & Elias, 2017) found that physicians specialized in obstetrics and gynecology, family medicine, anesthesia, intensive care, internal medicine, and cardiology had higher levels of burnout. This was also the case for residents and nurses, due to their heavy work load, long working hours, insufficient income, and a perceived mismatch between effort and reward (Elbarazi, Loney, Yousef, & Elias, 2017).

### ***1. Burnout in Lebanon***

Talih, Ajaltouni, and Farhood (2018) assessed the prevalence of depressive symptoms and severity of burnout among 91 nurses in a medical center in Lebanon. Results show that 36.2% of the nurses reported significant major depressive symptoms, which in turn, were correlated with anxiety, drug abuse, and burnout. About half of the nurses reported burnout as measured by the Burnout Measure scale, whereby those who were above 35 years old were least likely to be burned out.

Ashkar, Romani, Musharrafieh, and Chaaya (2010) assessed the prevalence of burnout among 155 residents in a Lebanese medical center and found that 80% of the residents had a high level of burnout in at least one of the three components with the

highest domain being emotional exhaustion (67.7%) (Ashkar, Romani, Musharrafieh, & Chaaya, 2010). Interestingly enough, the results found that the higher portion of those with high levels of burnout were female, which are similar to the findings of other studies in Lebanon (Elbarazi, Loney, Yousef, & Elias, 2017; Sabbah, Sabbah, Sabbah, Akoum, & Droubi, 2012) but contrary to those found in the western literature that showed no gender differences. Inconsistent with some of the findings of studies in Lebanon (Elbarazi, Loney, Yousef, & Elias, 2017; Sabbah, Sabbah, Sabbah, Akoum, & Droubi, 2012), however, this study found that there was no significant difference in the occurrence of burnout between private and public hospitals.

Another finding that was inconsistent with the majority of the literature was the fact that age was not a predictor of burnout (Ashkar, Romani, Musharrafieh, & Chaaya, 2010). The findings also indicate that working long hours, lack of supervision (in the case of residents), exposure to stressful life events (war, political instability, and personal life stressors) are all related to higher levels of burnout (Ashkar, Romani, Musharrafieh, & Chaaya, 2010).

A major cause of concern is the finding that a considerable percentage of residents cope with their heavy workload by drinking alcohol and/or smoking excessively (Ashkar, Romani, Musharrafieh, & Chaaya, 2010). This is consistent with the findings of Talih, Warakian, Ajaltouni, Shehab, and Tamim (2016), who found that out of 118 participants, 14% reported illicit drug abuse, while 10% reported hazardous alcohol use. A study (Talih, Daher, Daou, & Ajaltouni, 2018) that examined burnout among a sample of 176 medical students during their 4 years of medical school provided valuable insight on the progression of substance use among this population. The study found that first year medical students

reported lower rates of alcohol, illicit drugs, and cannabis use compared to second, third, and fourth year students, which can be explained by the increase of academic and professional stressors and responsibilities (Talib, Daher, Daou, & Ajaltouni, 2018). This is worrisome since drug and alcohol use has been found to be related to higher rates of suicide among physicians in the U.S (Sansone & Sansone, 2009), and a significant portion of medical students and residents reported suicidal ideation across different studies in Lebanon (Ashkar, Romani, Musharrafieh, & Chaaya, 2010; Talib, Daher, Daou, & Ajaltouni, 2018; Talib, Warakian, Ajaltouni, Shehab, & Tamim, 2016).

Despite studies on individual differences that may protect against burnout (e.g. hardiness), very few studies have examined the impact of self-compassion - the non-judgmental observation and understanding of one's own pain, failures, and mistakes, as they are thought to be a part of being human (Neff, 2003b).

### **E. Self-Compassion**

Self-compassion is conceptualized as comprising of three interrelated parts: (1) self-kindness as opposed to self-judgment, (2) common humanity as opposed to isolation, and (3) mindfulness as opposed to overidentification or avoidance (Neff, 2003b). Each of the components consists of two subcomponents, a positive one and a negative one. It is measured through the "Self-Compassion Scale", which yields six separate factors rather than three. For example, self-kindness and self-judgment are not mutually exclusive poles of the same dimension, which means that if one is high on self-kindness, it does not necessarily mean that they are low on self-judgment, since a person might not judge himself often, but still not act in a kind way towards him or herself (Neff, 2003a).

Self-kindness involves offering kindness and empathy to oneself while refraining from judgment and self-criticism, while self-judgment involves being hostile towards one's thoughts, feelings, and overall worth (Neff, 2003a). Common humanity refers to the belief in the fallibility of human nature, and how that brings us together, since everyone is prone to mistakes and failures, while isolation refers to feelings of being cut-off from others due to emotions of shame from one's inadequacies (Neff, 2003a). Finally, mindfulness involves being aware and accepting of the present moment, and all the thoughts and feelings that come with it (whether positive or negative), without reacting to them or judging them, while overidentification involves ruminating about one's limitations, which prevents experiencing the present moment (Neff, 2003a). In extreme cases, this can lead to extreme avoidance of any painful experiences, which in the long-term can intensify negative emotions (Neff, 2003a).

While these components are conceptually distinct, Neff (2003a) suggests that self-compassion entails all of them and that each component enhances and strengthens the others. First, self-kindness can foster common humanity and mindfulness, since if a person is caring and understanding towards themselves, then they are less likely to feel ashamed of their pain or failure and to isolate themselves from others. Being kind to one's self can also allow a person to adopt a more balanced view, which can make it easier to hold one's pain or inadequacies in mindful awareness, without ruminating on past mistakes or future fears (Neff, 2003a). Second, common humanity can foster self-kindness and mindfulness, since people who feel connected to others may be less self-critical and more accepting of their imperfections, as they are part of being human. Common humanity may also foster mindfulness by allowing one to observe their failures clearly, making it less likely for them

to avoid or overidentify with them. Third, mindfulness can foster self-kindness and common humanity, since labeling faults can prevent self-criticism and help one acknowledge that others share these faults (Neff, 2003a).

Given that self-compassion is related to feelings of compassion and concern towards one's self and others, it should not be mistaken for self-indulgence and self-pity. This is because self-compassion does not involve putting one's own needs before those of others, but rather it emphasizes that pain and inadequacies should be acknowledged as part of being human, and that all people, including one's self, are worthy of compassion (Neff, 2003a). Self-compassion is also different from self-pity, since those who pity themselves may forget that others may share the same issues, while self-compassion entails a constant reminder that everyone has problems. (Neff, 2003a).

### ***1. Self-Compassion and Psychological Outcomes***

Self-compassion, as defined above, has been useful in predicting various positive behavioral outcomes, such as life satisfaction, fulfillment (Zessin, Dickhäuser, & Garbade, 2015), and physical and psychological well-being (Hall, Row, Wuensch, & Godley, 2013; Hope, Koestner, & Milyavskaya, 2014; Zessin, Dickhäuser, & Garbade, 2015). It has also been associated with less rumination (Johnson & O'Brien, 2013; Odou & Brinker, 2014; Raes, 2010), less avoidance (Kreiger et al., 2013), and overall better emotional regulation (Neff 2003a, 2003b; Leary et al., 2007).

Recently, some studies have examined the relation between the self-compassion and burnout. For instance, Montero-Marín et al. (2016) examined the relationship between

burnout and self-compassion among a sample of Spanish primary healthcare professionals (physicians, nurses, and medical residents). They found that having low self-compassion was related to higher levels of burnout. However, the authors used an alternative conceptualization of burnout, measured through the “Burnout Clinical Subtypes Questionnaire” (BCQ-36).

Duarte, Pinto-Gouveia, and Cruz (2016) studied the moderating effect of self-compassion on the relationship between empathy and compassion fatigue among helping professionals. Specifically, they investigated the extent to which empathy and self-compassion can predict three aspects of nurses’ professional quality of life: (1) compassion satisfaction (pleasure derived from helping others), (2) compassion fatigue (diminished capacity to be compassionate towards others, resulting from dealing with people’s suffering), and (3) burnout (feelings of hopelessness and difficulty in carrying out one’s job (Stamm, 2009)). They found that feelings of empathy can lead to both compassion satisfaction *and* compassion fatigue, and that the presence of self-compassion components determined if one would develop one or the other. That is, those with high levels of empathy, *and* high levels of self-judgment, isolation, and over-identification (the negative aspects of self-compassion), were more likely to develop compassion fatigue than those displaying self-compassion. Conversely, self-kindness and common humanity, moderated the relationship between empathy and compassion fatigue, whereby the kinder an individual is to his or herself and the more interconnected he or she feels with other people, the weaker the relationship between empathy and compassion fatigue becomes (Duarte, Pinto-Gouveia, and Cruz, 2016).

Furthermore, Oslon, Kemper, and Mahan (2014) examined the extent to which self-compassion and other factors, such as emotional intelligence, mindfulness practice, empathy can predict burnout, measured with the Maslach Burnout Inventory, among first-year pediatric residents. They found that of all the factors, only self-compassion and practicing mindfulness, significantly and negatively predicted burnout. Similarly, a study published in 2017 (Yip, Mak, Chio, & Law, 2017) examined the mediating role of self-compassion on the relationship between practicing mindfulness and burnout and vicarious trauma (work-related trauma that results in negative psychological symptoms, such as anxiety, nightmares, avoidance, and heightened psychological arousal), among a sample of clinical psychologists and trainees in Hong Kong. Results found that the self-judgment component of self-compassion mediated the effect of mindfulness on burnout and vicarious trauma. This means that people with high self-judgment and low mindfulness are more susceptible to vicarious traumatization and burnout from working with clients than those with high self-kindness and more mindfulness.

It is important here to differentiate between “mindfulness” as a component of self-compassion and “mindfulness” as conceptualized in these two studies. The latter is defined as a capacity to direct one’s attention to the present in a non-judgmental and accepting manner (Woods & Proeve, 2014). It is usually applied to pleasant, unpleasant, or neutral experiences, while mindfulness in the context of self-compassion is strictly related to experiences of pain and emotional suffering (Baer, Lykins, & Peters, 2012). In addition, mindfulness as a subscale of self-compassion is described as a state of mental balance rather than a type of awareness and attention (Woods & Proeve, 2014).



Overall, the studies on the relationship between burnout and self-compassion, present preliminary, yet significant groundwork, that positive individual characteristics such as self-compassion can reduce one's chances of developing burnout. However, these four studies demonstrate several limitations. First, Montero-Merin et al. (2016) used an alternative definition of burnout that is not as supported as Maslach and Jackson's (1981) framework. Moreover, the authors have only tested this model on Spanish samples, and so, the ability of the model in predicting burnout among people from other countries and cultures, along with the generalizability of the results to other samples are questionable.

Furthermore, the two studies by Duarte, Pinto-Gouveia, and Cruz (2016) and Yip, Mak, Chio, and Law (2017) measured burnout using the "Professional Quality of Life" (ProQOL) scale (Stamm, 2009) rather than the MBI version designed specifically for healthcare professionals (i.e., the Health Services Survey of the Maslach Burnout Inventory (MBI-HSS)). Unlike the MBI-HSS, the ProQOL scale conceptualizes burnout as a subcomponent of compassion fatigue and defines it as feelings of hopelessness and difficulty in performing one's job (Stamm, 2009). This conceptualization of burnout, however, fails to capture the complexity and depth of the construct as compared to that of Maslach and Jackson's (1981). In addition, several studies (Hunsaker, Chen, Maughan, & Heatson, 2015; Ray, Wong, White, & Heaslip, 2013; Thieleman & Caccitore, 2014) have argued that burnout and compassion fatigue are two distinct constructs, whereby compassion fatigue is an empathy-related problem that results from being repeatedly exposed to a client's trauma and having to constantly empathize with them, while burnout is a more complex construct that takes into account one's personal qualities and their work environment. While these studies might have used the ProQOL scale because burnout was

not their main or only outcome variable, it is still important to test the ability of the MBI-HSS in measuring burnout in this sample, especially since the MBI-HSS was specifically designed to be used among people in this occupation.

Overall, these articles emphasize the important role that self-compassion plays in relation to burnout. Therefore, understanding this relationship is crucial, as it can help the professional, the client, and the organization. For instance, the organization or institution in which the professional works, can incorporate self-compassion training, which can protect the professional from the detrimental consequences of burnout. This would not only maintain the well-being and productivity of the professional, but it would also ensure a good professional-client relationship, where there are fewer medical errors, higher quality of care, and better outcomes for the client.

## CHAPTER III

### AIMS AND HYPOTHESES

The main aim of this study is to examine the relationship between self-compassion and burnout among health care providers (i.e. nurses, physicians, psychiatrists, psychotherapists, and residents) at two major Lebanese hospitals, while taking into consideration other variables, such as socio-demographic and occupational variables. This is the first study, to our knowledge, that has examined the relationship between self-compassion and burnout among a sample of healthcare professionals in Lebanon.

**Null Hypothesis:** There will be no significant relationship between burnout and self-compassion or demographic or occupational variables.

**Hypothesis 1:** Those with low self-compassion will show a) high levels of Exhaustion, b) high levels of Cynicism, and c) low levels of Professional Efficacy.

**Hypothesis 2:** Self-compassion will predict burnout above and beyond the effect of demographic/occupational variables.

## CHAPTER IV

### METHOD

#### **A. Research Design**

This study employed a cross-sectional design. The predictors are relevant individual variables identified in the literature, and self-compassion, while the outcome variable is burnout.

#### **B. Sample Size Calculation**

We calculated the required sample, by considering the parameters of desired effect size, number of predictors, power, and statistical analysis. To estimate the desired effect size, we examined the coefficient of multiple determination in the regression conducted in Montero-Merin et al. (2016), which is the study most similar to ours. We then converted that ( $R^2=.11$ ), into Cohen's  $f^2$ , which is the commonly used effect size in multiple regression (Field, 2013), resulting in a value of .12 (medium effect size) (Cohen, 1998). Therefore, to determine the sample size needed to obtain such a medium effect size, with three predictors, we used the software G-Power (Faul, Erdfelder, & Buchner, 2009). Power was set at 0.8 (Tabachnick & Fidell, 2013), and alpha was set at the conventional level of 0.05. Based on these parameters, the desirable sample size was 105.

### C. Participants

We recruited a convenience sample of healthcare professionals ( $N = 90$ ) from the American University of Beirut Medical Center (AUBMC) and Saint Georges Hospital University Medical Center (SGHUMC). In AUBMC, potential participants' emails were selected at random from the pool of healthcare workers, and sent an invitation email with three reminders. At SGHUMC, all healthcare professionals were sent an email and two reminders. The email briefly explained the study and directed participants to an online link which included the informed consent and survey questions. The sample was predominately female (69%), single (68%), and whose age ranged between 22 and 60 ( $M = 30.98$ ,  $SD = 8.89$ ). After missing value analysis, the sample was reduced to  $N = 80$ .

Table 1  
*Demographic Characteristics*

Variable	N	%	M	SD
<b>Sex</b>				
Male	24	30%		
Female	55	69%		
<b>Age (Years)</b>			30.99	8.89
< 25	9	11%		
25 – 35	54	68%		
36 – 46	9	11%		
> 46	7	9%		
<b>Marital Status</b>				
Single (never been married)/Separated	56	70%		
Married (or in a domestic partnership)	24	30%		
<b>Number of Children</b>			.41	.11
0	64	80%		
1-2	13	16%		
3-5	3	4%		

## **D. Procedure**

The study obtained approval from the Institutional Review Board at AUB, and the St George administration. The survey questions were placed on survey.aub.edu.lb, and scales were counterbalanced to avoid order and sequential effects.

## **E. Instruments**

### ***1. Socio-demographic and Occupational Variables Survey***

Background information from the participants included: age, sex, relationship status, number of children, level of education, occupation, working hours per week, length of service, type of employment contract, income bracket, number of vacations taken in the past year, number of sick leaves in the past year, frequency of exercise, and frequency of healthy eating.

### ***2. Maslach burnout Inventory-Health Services Survey (MBI-HSS)***

The MBI-HSS is a 22-item survey that was developed by Maslach and Jackson (1981) to assess the prevalence of burnout among people working in the field of human services. It was originally developed by examining how a sample of 1,025 people belonging to different health and service occupations responded to items. Principal and confirmatory factor analysis with varimax rotation yielded a 3-factor structure consisting of 22 items, which supported Maslach and Jackson's definition of burnout (Maslach & Jackson, 1981). The MBI-HSS measures burnout through the three main dimensions of (1)

exhaustion, (2) cynicism, and (3) professional efficacy that were previously discussed (Maslach & Jackson, 1981). It is measured through a 6-point Likert scale, ranging from 0 (“*I have never experienced this feeling*”) to 6 (“*I experience this feeling everyday*”).

The scores of each subscale are calculated separately and are not usually combined into a total score (Maslach, Jackson, & Leiter, 1997). On each subscale, the minimum score is 0 while the maximum score is 54 for Exhaustion, 30 for Cynicism, and 48 for Personal Efficacy. The cut-off scores for each subscale are as follows: (a) Exhaustion (*low* = 0-16; *average* = 17-26; *high* = 27 or more), (b) Cynicism (*low* = 0-6; *average* = 7-12; *high* = 13 or more), (c) Professional Efficacy (*low* = 0-31; *average* = 32-38; *high* = 39 or more) (Maslach, Jackson, & Leiter, 1997). Presence of burnout is reflected by having high scores on the Exhaustion and Cynicism components but low scores on the Professional Efficacy component (Maslach, Jackson, & Leiter, 1997).

a. Reliability and Validity in Non- Lebanese Samples

The overall reliability of the MBI-HSS is acceptable, with the Exhaustion subscale consistently showing better reliability coefficients than the other subscales. The internal consistency for each subscale is .90 for Exhaustion, .79 for Cynicism, and .71 for Professional Efficacy, (Maslach, Jackson, & Leiter, 1997). Test-retest reliability is .82 for Exhaustion, .60 for Cynicism, and .80 for Professional Efficacy, in a sample of graduate student students tested 2-4 weeks apart (Maslach, Jackson, & Leiter, 1997). Expectedly, temporal stability was lower across 12 months, with coefficients of .60 for Exhaustion, .54 for Cynicism, and .57 for Professional Efficacy (Maslach, Jackson, & Leiter, 1997). The

scale has also been translated by other researchers into different languages, including French, German, Dutch, Spanish, Italian, Swedish, Finnish, Polish, Hebrew, and Japanese (Maslach, Jackson, & Leiter, 1997).

b. Reliability and Validity in Current Sample

In our study, the internal reliability was excellent for Exhaustion ( $\alpha = .90$ ), good for Cynicism ( $\alpha = .80$ ) and acceptable for Efficacy ( $\alpha = .71$ ). Overall, the total scale had an acceptable internal reliability ( $\alpha = .76$ ). These reliability coefficients resembled those found by Maslach, Jackson, and Leiter (1997).

To examine the degree to which the intended factors replicate within the Lebanese sample (i.e. structural validity), we conducted exploratory factor analysis (EFA) using Principal Component Analysis (PCA). Although our sample size was less than the size typically needed for EFA (at least 7 participants per item), this was an important exploratory step. It allowed us to understand the extent to which the structure replicates in this sample, prior to using it as an outcome.

First, an unconstrained Principal Component Analysis (PCA) was run, where factors were allowed to load freely. Results yielded a 3-factor solution clearly visible on the scree-plot, while the component matrix revealed five factors. This indicates that the best fit is likely to be between 3 and 5 factors. Next, we ran a PCA using the same parameters set by Maslach and Jackson (1981), i.e. a forced three-factor solution, using varimax rotation. The Keiser-Meyer-Olkin (KMO) was .81, and Bartlett's test was significant ( $\chi^2(231) = 898.21, p < .001$ ), suggesting that the data was suitable for factor analysis, despite the small



sample size. Results revealed that most items loaded on their intended factors. However, one item (“*I can easily understand how my patients feel about things*”) loaded negatively on Cynicism rather than positively on Professional Efficacy. This might be because the item does in fact resemble items on the Cynicism scale which revolve around being callous, detached, and contemptuous as opposed to being empathic, and understanding towards patients. In slight contrast, items on Professional Efficacy are more specific about work-related tasks such as dealing with problems, remaining positive, and feeling good about one’s work, as opposed to feeling that one is ineffective and the job is not worthwhile. Therefore, since this item in particular can conceptually belong to the Cynicism scale, it is not considered sufficiently problematic to be removed. The overall fit of items to subscales was judged to be excellent, despite the limited sample size, and therefore we were able to use the three subscales (i.e. factors) as intended by the authors.

### **3. *Self-Compassion Scale (SCS)***

The SCS (Neff, 2003a) is a 26-item scale that measures six domains: (1) self-kindness, (2) self-judgment, (3) common humanity, (4) isolation, (5) mindfulness, and (6) overidentification. Participants are asked to rate each item on a 5-point Likert scale, whereby 1 = *almost never* and 5 = *almost always*. The mean of each subscale is calculated separately and then a total mean is computed. A score of 1 to 2.5 indicates a low level of self-compassion, 2.5 to 3.5 indicates a moderate level of self-compassion, and 3.5 to 5.0 indicates a high level of self-compassion (Neff, 2003a).

a. Reliability and Validity in Non- Lebanese Samples

Neff (2003a) administered the scale to 391 undergraduate students and found an excellent internal consistency of .92 for the total scale, while that of subscales was acceptable and ranged between .75 and .81. Another study by Neff (2003a) with 232 undergraduate students also demonstrated good test-retest reliability ranging between .85-.93 over a period of 3 weeks.

In terms of validity, the scale has demonstrated evidence of convergence with conceptually related variables. Participants, who scored in the highest quartile of self-compassion, also had higher mean scores on self-reported kindness to one's self and to others than those who scored in the lowest quartile of self-compassion. Moreover, Neff (2003a) also found that self-reported self-compassion was significantly correlated with therapists' ratings of self-compassion ( $r = .32$ ) even if the therapist had only met the participant once.

In terms of the structural validity of the construct, limited information is provided by the authors. Neff (2003a) assessed its internal structure by examining whether items fit on a six-factor model. They conducted a confirmatory factor analysis (CFA), which showed that the 6-factor model fit the data adequately well ( $NNFI = .90$ ;  $CFI = .91$ ), with significant loadings for each of the items ( $p < .001$ ) (Neff, 2003a). Another CFA examined whether the intercorrelations can be explained by a single higher-order factor of self-compassion. This CFA indicated that this model fit the data marginally well ( $NNFI = .88$ ;  $CFI = .90$ ), and therefore the factors were distinct and not part of a super-factor of self-compassion (Neff, 2003a).

b. Reliability and Validity in Current Sample

In this study, Cronbach's alpha ranged from questionable (.65 for Common Humanity, .69 for Mindfulness, .71 for Self-Judgment, and .72 for Over-Identification), to acceptable (.78 for Isolation, and .82 for Self-Kindness). The total scale had good internal reliability ( $\alpha = .88$ ). It is notable that the internal reliability in our sample was slightly lower than that reported by Neff (2003a). To further understand why the items were not as coherent as expected, and to explore the internal structure of the scale further, we conducted an Exploratory Factor Analysis, using PCA.

There were no known parameters to be used because no previous studies conducted EFA or reported specific item analysis. However, using the same parameters used for other scales in this study, we first applied PCA, without rotation, and forced the extraction of 6 factors. Upon examination, most items were double loading and two factor pairs had correlations higher than 0.3, suggesting an oblique rotation might be more fitting (Tabachnick & Fidell, 2013). Therefore, we extracted 6 factors again, using an oblique oblimin rotation. The KMO was .81, and Bartlett's test of sphericity was significant ( $\chi^2(325) = 1032.09, p < .001$ ), suggesting that the data could be factorially analyzed. Results suggested that factors were not loading as expected. Instead of obtaining six factors or three bipolar factor, we obtained one factor that represented items pertaining to self-judgment and isolation, a second factor representing self-kindness, and a third factor reflecting common humanity and mindfulness, versus over-identification. Therefore, because factors did not replicate as intended, it was judged that the construct of self-compassion would be better represented by the scale as a whole, as opposed to specific factors. As a result, in

further analyses, we decided to use the total mean score of self-compassion rather than the mean of each of the six subscales.

#### ***4. Adapted Stressful Life Events Scale (ASLES)***

The Adapted Stressful Life Events Scale (ASLES) is a list of life changes developed for another ongoing study by Zeinoun (in press). The list contains 26 life events that are associated with positive and negative stress, relevant to students and employees living and working in Beirut. Participants choose whether they have experienced the event in the past three months (*Yes*), or they have not (*No*), or indicate that the event does not apply to them (*Does not Apply to Me*). Zeinoun (in press) developed the scale by borrowing items from dated stressful events lists such as the Holmes and Rahe Stressful Life Events (1967), which are not copyrighted, and wrote new items following focus group discussions with employees and medical residents at the American University of Beirut.

##### **a. Reliability and Validity in Current Sample**

Currently, the scale is being used in ongoing studies, and its psychometric properties have not been confirmed. The reason for including the scale is two-fold. One, examining the level of reported stress in our sample, and comparing that against burnout scores, would allow us to discern whether burnout at work and stressful life events are related. Two, knowing the most frequently reported stressors (e.g., long working hours versus lack of support), can inform future studies of what factors to consider when designing interventions for burnout that are based on people's actual life experiences.

## CHAPTER V

### RESULTS

#### A. Statistical Analyses

Data was analyzed using SPSS v23. First, we conducted preliminary analysis for missing values and assumptions of inferential statistics. Second, we conducted Exploratory Factor Analysis and reliability analyses (results described under *Instruments*). Third, we ran descriptive analyses of the sample's social and occupational characteristics. Finally, we conducted a multiple regression where independent variables were socio-demographic and occupational variables and self-compassion, while the dependent variable (outcome) was burnout.

##### 1. *Missing Value Analysis*

To deal with the missing values in both the MBI-HSS and SCS, we deleted cases that were missing 50% or more of their item ratings. This procedure reduced the sample size from  $N = 98$  to  $N = 80$ . Both MBI-HSS and SCS values were missing completely at random (MCAR) and Little's MCAR test was not significant, for both the MBI-HSS:  $\chi^2(N = 80) = 81.104, p = .57$ , and the SCS:  $\chi^2(N = 80) = 182.01, p = .30$ . Next, missing values for the MBI-HSS and SCS were imputed using Expectation-Maximization (Tabachnick & Fidell, 2013).

## ***2. Assumptions of Multiple Regression***

We examined assumptions of multiple regression prior to reporting the analyses. The assumption of linearity was tested by examining scatterplots of the three burn-out scores and the predictors. They all showed a linear relationship. The assumption of normal distribution of errors (residuals) was assessed by examining histograms, and judging that the distribution resembled a bell curve, indicating that the data was normally distributed. The assumption of independence of errors was examined by looking at the Durbin-Watson values of the dependent variables, which should be between 0 and 4 (Tabachnick & Fidell, 2013). Durbin-Watson value was 1.70 for Exhaustion, 1.81 for Cynicism, and 1.88 for Efficacy, indicating that the assumption was met. The assumption of homoscedasticity was tested by examining residual plots (residuals vs. fitted values and standardized residuals vs. fitted values), whereby the vertical range of the residuals appeared to increase as the fitted values increased, indicating that the assumption was met (Tabachnick & Fidell, 2013). Finally, the assumption of multicollinearity was tested for by examining the correlation matrix, and the Variance Inflation Factors (VIF). All predictors had a Variance Inflation Factor (VIF) value less than 10 (Tabachnick & Fidell, 2013). Also, by visually examining the correlations between all variables, we noted that the maximum correlation was that between age and years of experience ( $r = -.93, p < .05$ ). This is expected, since experience is gained across time. Nonetheless, this is not problematic since age was not meant to be included as a predictor in the regression analyses.

Finally, Mahalanobis' distance (MD) and Cook's distance were examined to ensure that there were no outliers or any influential cases that may impact the results of the regression analyses. According to Tabachnick and Fidell (2013), a case with a

Mahalanobis' distance larger than 18.47 for 4 predictors would indicate that it is an outlier, while a Cook's distance greater than 1 would indicate that it is exerting influence on the model as a whole. Upon examination, we found that no case had an MD value greater than 18.47 or a Cook's Distance greater than 1.

## **B. Occupational Characteristics**

Expected of a sample of healthcare professionals, almost half (54%) reported that they have received a Doctorate degree (MD, PhD, EdD), while 20% had a Master's degree or equivalent. In terms of specialization, more than half of the professionals were medical doctors (57%), but all but five were still in their residency training. Remaining professionals were registered nurses (26%), and other allied medical professionals such as psychologists, speech therapist, and nutritionists (6%). In terms of income, 68% of the sample reported a salary between \$1,001 and \$2000. Although this salary range is at the lower-end of the continuum, it is not unusual because medical residents and nurses, who make up almost 51% of our sample, are typically within this salary range. Notably, two thirds of the sample reported that they are financially comfortable or neutral regarding their "financial situation". In terms of experience, the reported average years of experience working as a healthcare professional was 8.30 years ( $SD = 9.32$ ). Finally, almost all participants reported having a 40-hours full time contract (93%), yet a staggering 78% reported working more than the assigned 40 hours. At the extreme, 16% reported working up to 80 hours per week ( $M = 55$ ;  $SD = 18.48$ ).

### C. Lifestyle Characteristics

Regarding exercise and eating habits, 50% of our sample did not exercise more than once per month, while one third did exercise about once a week. On the other hand, only 16% reported that their diet is mostly “junk-food”, while slightly more than half (56%) described all or most of their meals as healthy (e.g., home-cooked meals, salads).

In terms of stressful life events, the most frequently reported stressors were those related to time constraints, mainly: (1) difficult or long working hours (63%), (2) major changes in amount of socialization (61%), (3) major changes in amount of leisure/recreation (51%), and (4) major changes in amount of study/work (51%).

To understand the relationship between stressful life events and burnout, we examined the correlation between the total number of stressful life events reported, and scores obtained on the Burnout subscales. We found that the more stressors reported, the higher the scores on Exhaustion ( $r = .48, p < .001$ ) and Cynicism ( $r = .28, p = .01$ ).

Table 2  
*Occupational Characteristics*

Variable	N	%	M	SD
Highest Degree of Education Completed				
Doctorate/Medical Degree	43	54%		
Master's Degree	16	20%		
Undergraduate Degree	19	24%		
Practical Nurse	1	1.3%		
Occupation				
Attending Physician/ Attending Resident	46	58%		
Clinical Psychologist/ Dietitian/ Nutritionist	8	10%		
Registered Nurse	21	26%		
Other <sup>a</sup>	5	6%		
Years of experience			8.30	9.32
Working hours per week			55.01	18.48



Variable	N	%	M	SD
Income/month				
<\$500 – \$2,000	61	78%		
\$2,001 - \$3,500	8	10%		
>\$3,500	9	12%		
Financial Comfort				
Comfortable	27	35%		
Neutral	32	41%		
Uncomfortable	19	24%		
Sick leaves taken in past year			1.86	4.53
Vacations taken per year			22.46	9.02

Note. <sup>a</sup> Other includes medical administrator, healthcare support officer, and midwife

#### D. Self-Compassion

The average score on self-compassion was 3.24 ( $SD = .58$ ), which suggests that the sample has a “moderate” level of self-compassion. There were no significant differences in scores across gender, marital status, place of work, education, occupation, and frequency of exercise. Interestingly, low scores on self-compassion did show a moderate relationship with stressful life events ( $r = -.47, p < .001$ ) and eating habits. Participants who had at least two unhealthy meals almost every day, were more likely to score lower on self-compassion ( $p < .001$ ), and report more stress ( $p = .05$ ), than those who had at least two healthy meals daily.

#### E. Burnout

Our sample showed high levels of exhaustion, with a mean score of 27.18 ( $SD = 11.95$ ), In contrast, the mean score of the “cynicism” subscale was 9.30 ( $SD = 6.47$ ), while that of “professional efficacy” was 34.60 ( $SD = 6.63$ ), both of which are considered to be in

the average range. There were no significant differences in burnout scores across marital status, place of work, level of education, occupation, and frequency of exercise. However, participants that reported high exhaustion were also female, had significantly longer working hours ( $r = .34, p < .01$ ), and more sick leaves ( $r = .33, p < .01$ ). In contrast, higher Cynicism showed a significant but small relationship with longer working hours ( $r = .23, p = .04$ ), while professional efficacy was not related to any of the occupational or social variables.

Additionally, scores of “exhaustion” ( $F(3,78) = 5.60, p < .01$ ), and “efficacy” ( $F(3,78) = 4.34, p < .01$ ), were significantly different across participants’ eating habits. More specifically, post-hoc tests revealed that those who had at least two unhealthy meals almost every day, were much more likely to score high on exhaustion (mean difference = 1.00,  $p = .04$ ), and low on professional efficacy (mean difference =  $-.69, p < .01$ ), than those who had at least two healthy meals almost every day.

Finally, but importantly, all of the burnout components were significantly and inversely associated with self-compassion, with the strongest association being between Exhaustion and Self compassion ( $r = -.41, p < .001$ ). Therefore, we reject the null hypothesis, and accept Hypothesis 1 that those with low self-compassion have higher scores of burnout.

Table 3  
*Scores and Reliability Coefficients of Main Scales*

<b>Variable</b>	<b>M</b>	<b>SD</b>	<b>Qualitative Descriptor<sup>a</sup></b>	<b>Cronbach’s Alpha</b>
SCS Mean Score	3.24	.58	Moderate	.88
MBI-HSS Sum Exhaustion	27.18	11.95	High	.90

Variable	M	SD	Qualitative Descriptor <sup>a</sup>	Cronbach's Alpha
MBI-HSS Sum Cynicism	9.31	6.47	Average	.80
MBI-HSS Sum Efficacy	34.60	6.63	Average	.71
ASLE Total Score	5.71	3.56		

*Note.* SCS = Self Compassion Scale (Neff, 2003a); MBI-HSS = Maslach Burnout Inventory-Health Services Survey (Maslach & Jackson, 1981); ASLE = Adapted Stressful Life Events (Zeinoun, in preparation).<sup>a</sup> Qualitative descriptors based on the cut-off ranges suggested by Maslach, Jackson, and Leiter (1997), and by Neff (2003a).

Table 4  
Correlations between occupational and individual variables

	1	2	3	4	5	6	7	8	9	10	11
1. Age											
2. Number of children	.671*										
3. Working hours/week	-.179	-.243*									
4. Years of experience	.928*	.729**	-.173								
5. Vacation days/year	-.077	-.017	.045	-.123							
6. Sick leaves past year	.071	.185	-.192	.091	-.059						
7. Self-compassion	.131	.162	-.206	.188	-.006	-.182					
8. Exhaustion	-.186	-.186	.341**	-.189	-.146	.326**	-.408**				
9. Cynicism	-.174	-.119	.233*	-.183	-.014	.188	-.299**	.566**			
10. Efficacy	.082	.094	-.069	.119	-.013	.001	.330**	-.218	-.382**		
11. Stressful life events	-.097	-.150	.370**	-.149	-.090	.259*	-.467**	.484**	.284*	-.013	

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

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

## F. Results of Multiple Regression

Given that we want to examine the extent to which each independent variable can predict the outcome by order of conceptual importance, a hierarchical multiple regression analysis was used (Field, 2014). Three multiple regressions were conducted for each of the three burnout subscales (represented by their sum scores). The socio-demographic and occupational variables of sex, working hours per week, and years of experience, were entered in the first step of the regression and the total self-compassion mean score was entered in the second step.

### 1. Burnout – Exhaustion

Socio-demographic and occupational variables alone, predicted 18% of the variance of Exhaustion scores ( $R^2 = .18$ ,  $F(3,73) = 5.28$ ,  $p < .01$ ). Among these variables, being female ( $\beta = -.23$ ,  $p = .03$ ) and working long hours per week ( $\beta = .34$ ,  $p < .01$ ) significantly predicted Exhaustion. When self-compassion was added to the model, it significantly explained an additional 11% of the variance above and beyond the social and occupational variables ( $\Delta R^2 = .11$ ,  $F(1,72) = 10.8$ ,  $p < .01$

Table 5  
*Model Summary for Exhaustion*

Model	R	$R^2$	Adjusted $R^2$	Change Statistics						
				SE of the Estimate	$R^2$ Change	F Change	df1	df2	Sig. F Change	
1	.422 <sup>a</sup>	.178	.145	11.15229	.178	5.284	3	73	.002	
2	.534 <sup>b</sup>	.285	.245	10.47443	.107	10.754	1	72	.002	

*Note.* <sup>a</sup> Variables in the model included sex, working hours, and years of experience. <sup>b</sup> Variables in the model included sex, working hours, years of experience, and self-compassion.

Table 6  
*Regression Parameters for Exhaustion*

Model		Unstandardized Coefficients		Standardized	t	p
		B	SE	Coefficients $\beta$		
1	(Constant)	23.930	5.450		4.391	.000
	Sex	-6.022	2.761	-.233	-2.181	.032
	Working hours per week	.221	.070	.342	3.162	.002
	Years of experience	-.101	.148	-.074	-.685	.496
2	(Constant)	47.724	8.880		5.375	.000
	Sex	-5.403	2.600	-.209	-2.078	.041
	Working hours per week	.182	.067	.280	2.715	.008
	Years of experience	-.026	.140	-.019	-.185	.854
	Self-compassion	-7.083	2.160	-.340	-3.279	.002

## 2. *Burnout – Cynicism*

The socio-demographic and occupational variables alone predicted only 8% of the variance in Cynicism ( $R^2 = .08$ ,  $F(3,73) = 2.16$ ,  $p = .10$ ). However, unlike the case of Exhaustion, sex and number of working hours per week did not significantly predict Cynicism, and neither did years of experience. When self-compassion was added to the model, it significantly explained an additional 6% of the variance in the Cynicism scores ( $\Delta R^2 = .06$ ,  $F(1,72) = 5.43$ ,  $p = .02$ ).

Table 7  
*Model Summary for Cynicism*

Model	R	$R^2$	Adjusted $R^2$	SE of the	Change Statistics
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	Estimate				Sig. F				
					R <sup>2</sup> Change	F Change	df1	df2	Change
1	.285 <sup>a</sup>	.081	.044	6.43044	.081	2.155	3	73	.101
2	.382 <sup>b</sup>	.146	.098	6.24383	.064	5.429	1	72	.023

*Note.* <sup>a</sup> Variables in the model included sex, working hours, and years of experience. <sup>b</sup> Variables in the model included sex, working hours, years of experience, and self-compassion.

Table 8  
*Regression Parameters for Cynicism*

Model		Unstandardized Coefficients		Standardized Coefficients		
		<i>B</i>	SE	$\beta$	<i>t</i>	<i>p</i>
1	(Constant)	6.429	3.142		2.046	.044
	Sex	-.092	1.592	-.007	-.058	.954
	Working hours per week	.073	.040	.206	1.802	.076
	Years of experience	-.123	.085	-.165	-1.442	.154
2	(Constant)	16.507	5.293		3.119	.003
	Sex	.170	1.550	.012	.110	.913
	Working hours per week	.056	.040	.158	1.401	.165
	Years of experience	-.091	.084	-.122	-1.085	.281
	Self-compassion	-3.000	1.288	-.264	-2.330	.023

### 3. *Burnout – Professional Efficacy*

Sociodemographic and occupational variables alone predicted only 1% of the variance in the Efficacy scores ( $R^2 = .01$ ,  $F(3,73) = .33$ ,  $p = .80$ ). Again, none of the variables had a statistically significant contribution to the model. When self-compassion was added to the model, it significantly explained an additional 8% of the variance in Efficacy scores ( $\Delta R^2 = .08$ ,  $F(1,72) = 6.73$ ,  $p = .01$ ).

Therefore, we reject the null hypothesis, and accept Hypothesis 2 that self-compassion can predict burnout above and beyond the effect of socio-demographic and occupational variables.

Table 9  
*Model Summary for Professional Efficacy*

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Change Statistics					
				SE of the Estimate	R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change
1	.116 <sup>a</sup>	.014	-.027	6.71191	.014	.334	3	73	.801
2	.313 <sup>b</sup>	.098	.048	6.46323	.084	6.726	1	72	.012

*Note.* <sup>a</sup> Variables in the model included sex, working hours, and years of experience. <sup>b</sup> Variables in the model included sex, working hours, years of experience, and self-compassion.

Table 10  
*Results of multiple regression analysis for Professional Efficacy*

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	SE	β	t	p
1	(Constant)	34.935	3.280		10.651	.000
	Sex	.005	1.662	.000	.003	.998
	Working hours per week	-.017	.042	-.048	-.410	.683
	Years of experience	.073	.089	.098	.825	.412
2	(Constant)	23.324	5.479		4.257	.000
	Sex	-.297	1.604	-.021	-.185	.854
	Working hours per week	.002	.041	.006	.053	.958
	Years of experience	.037	.087	.049	.422	.674
	Self-compassion	3.456	1.333	.302	2.593	.012

## CHAPTER VI

### DISCUSSION

The main aim of this study was to examine the relationship between self-compassion and burnout among health care providers (i.e. nurses, physicians, psychotherapists, residents, and other allied professionals) at two major Lebanese hospitals, while taking into consideration socio-demographic and occupational variables. We found that self-compassion significantly predicts all components of burnout, and mostly exhaustion. This is the first study, to our knowledge, that has examined the relationship between self-compassion and burnout in an Arab sample.

#### **A. Self-Compassion Predicts Burnout**

The extent to which Lebanese professionals are self-compassionate (i.e. they normalize their shortcomings and difficulties faced, they balance their emotional reactions, they treat themselves with kindness), significantly predicts their levels of burnout, above and beyond the socio-demographic and occupational variables. For example, previous effect sizes for demographic variables ranged from  $d = 0.35$  to  $d = 0.37$  (small-medium) (Olson, Kemper, Mahan, 2015; Yip, Mak, Chio, Law, 2017), while that of self-compassion was  $d = 0.70$  (Montero-Merin et al., 2016). This finding has several important implications. First, it sheds light on a significant, yet extremely under-researched, individual variable that may possibly play a role in why certain people develop burnout more than others. Second, it helps hospitals and other organizations in reducing, or possibly preventing, high levels of



burnout by incorporating self-compassion training into the workplace, which can help increase the healthcare professionals' level of self-compassion.

Self-compassion training, particularly Mindful Self-Compassion Training (MSCT) and Compassion Cultivating Training (CCT) have been found to be highly effective in increasing levels of self-compassion (Zessin, Dickhauser, & Garbade, 2015). A meta-analysis by Zessin, Dickhäuser, and Garbade (2015), which reviewed longitudinal studies on the effect MSCT and CCT, found that they increased self-compassion and were *causally* related to improved cognitive and psychological well-being. While further replication of this study is essential to confirm the findings, these results, along with those that have been reviewed earlier in this paper, emphasize the important relationship between self-compassion and one's health and well-being. Thus, in light of such evidence, incorporating self-compassion-related interventions into the workplace should be an option worthy of consideration.

## **B. How Burned-out are Healthcare professionals?**

Lebanese healthcare professionals report high levels of Exhaustion, marked by a sense of feeling depleted at the end of a working day, feeling fatigued by the mere thought of another day at work, and being emotionally and physically drained by their jobs. On a more positive note, they do not show more detrimental signs of burnout such as Cynicism and low Professional Efficacy. That is, on average, they still sympathize with their patients, are emotionally involved at appropriate levels with their jobs (Cynicism), and feel they can effectively deal with their patients, remain calm, and influence others positively

(Professional Efficacy). The difference in subcomponents of burnout is interesting and can be explained in two different ways.

On one hand, it may mean that our sample is in the “early stages” of burnout. Maslach, Schaufeli, and Leiter (2001, 2017) argue their conceptualization of burnout is developmental, so that one begins feeling exhausted, which then leads to detached attitude and cynicism, which then impacts the professional-client relationship, and productivity. Therefore, this may mean that despite high scores on Exhaustion, the Lebanese healthcare professionals sampled are not burned-out beyond return, and therefore it is possible that the consequences of burnout that impact patient care are likely not yet visible. Nonetheless, this is still a matter worth investigating, as there are no path- analytic, or longitudinal studies that examine how the different components feed into each other across time.

### **C. Who is at Risk of Burnout?**

Although our study strongly shows that having (or not) self-compassion greatly predicts the presence of burnout, particularly Exhaustion, it is still important to discuss the role of demographic and occupational variables. Being female, reporting long working hours, and having more sick-leave days significantly explained levels of Exhaustion. This is consistent with other studies that have examined burnout in Lebanon and the Arab region (Ashkar, Romani, & Musharrafieh, 2010; Elbarazi, Loney, Yousef, & Elias, 2017). These findings are of particular significance, and worthy of further elaboration below.

## ***1. Women***

First, the fact that sex significantly explained levels of exhaustion is contrary to the majority of findings in the Western literature. In non-Arab samples, most studies (Bria, Băban, & Dumitrașcu, 2012; Maslach, Schaufeli, & Leiter, 2001) indicate that there were *no* sex differences in levels of burnout, and only one study (Maslach, Schaufeli, & Leiter, 2001) indicated that females were more exhausted than males, but males were more cynical than females. The majority of studies using Arab samples have yielded mixed findings, whereby some studies found that being a female makes one more vulnerable to burnout than being male (Ashkar, Romani, Musharrafieh, & Chaaya, 2010; Elbarazi, Loney, Yousef, & Elias, 2017; Sabbah, Sabbah, Sabbah, Akoumi, & Droubi, 2012), while others found no significant sex differences (Talih, Warakian, Ajaltouni, Shehab, & Tamim, 2016).

In our sample, females were indeed more exhausted than males, which are in support with Maslach, Schaufeli, and Leiter's (2001) claim; however, there was no sex difference in their level of cynicism. These contradicting findings between Arab and non-Arab samples, might be a result of cultural and gender roles in the Arab region. Women in Lebanon and many other Arab countries are under a lot pressure to get married and start a family, early on. They are also expected to take care of their children, elderly parents, younger siblings, and to manage most household chores. Women are expected to meet these societal and familial pressures, in addition to full-time jobs. This puts the women in an unfavorable situation, where they are expected to balance their own studies/careers in the one hand, and to meet social pressures and expectations in the other. Therefore, it is possible that high exhaustion in women, as opposed to men, reflects an additive effect of the job and life demands. Nonetheless, one might argue that the mentioned burden on

women is not unique to Lebanon, and results from local studies are not fully aligned with our findings. Therefore, further investigations are needed, perhaps taking into consideration possible gender roles and adherence to traditional cultural values as a moderator.

## **2. Long Working Hours**

Another important finding is the moderate association between long working hours and burnout. The mean of working hours per week in our sample was 55 hours, which is 15 additional hours than a 40-hour job contract states. In addition, 13% reported working a staggering number of 80 hours per week. In fact, there were significant differences between occupations and working hours, whereby Medical Residents worked significantly longer hours than registered nurses and all other allied professionals such as psychologist, speech therapists, nutritionist and others ( $F(3,74) = 9.26, p < .001$ ). We also found that working long hours was significantly correlated with stressful changes reported, most of which were related to our healthcare providers having difficult working hours and shifts, but not enough time to socialize or to rest.

Such long working hours, especially among medical residents, can have detrimental consequences on them, as well as on patients and the organization at large. At the level of the employee, those who work long hours are more likely to experience psychosomatic symptoms, such as headaches, ulcers, and insomnia and more likely to abuse alcohol or substances (Farber, 1990). Two studies in Lebanon, found that approximately 14% of residents (Talih, Warakian, Ajaltouni, Shehab, & Tamim, 2016) and nurses (Talih, Ajaltouni, & Farhoud, 2018) reported illicit drug use, while another study found that the prevalence of illicit drug use was almost 35% among residents (Talih, Daher, Daou, &

Ajaltouni, 2018), and that those who consume caffeine, who use non-prescribed sedatives or benzodiazepines, and who have currently or previously used self-prescribed psychotropics were more likely to develop burnout (Talih, Daher, Daou, & Ajaltouni, 2018).

The findings of these studies and ours, warrant serious caution regarding the dangerous coping strategies that our medical residents, are using to deal with their job demands, particularly long working hours. This means that in light of such evidence, it is feared that what may have begun as high levels of exhaustion in our sample may snowball into even more dangerous issues, such as depression, anxiety and increased likelihood of substance use disorders, all which have been detected to some extent in the aforementioned studies. This does not only affect the healthcare provider alone, but it also may put the patients' safety and treatment at risk due to the possible increase of medical errors.

It is important to bear in mind, that although we are examining average levels of burnout and long working hours, it takes only one or more *very* burned-out professional to commit a major and irreversible medical error. Almost 20-25% of medical residents report *always* feeling emotionally drained and fatigued, and 10-15% report *always* feeling uncaring and emotionally hardened, and 5% feel that they don't really care about their patients. These numbers ought to be red flags for organizations to address the issue of working hours, which seems to predict these attitudes.

Indeed, several countries have introduced limits on the working week and number of consecutive hours worked (Ashkar, Romani, Musharrafieh, & Chaaya, 2010). While residency programs in Beirut have similar work restriction laws (Ashkar, Romani,

Musharrafieh, & Chaaya, 2010), the implementation of these laws appear to be not strictly followed.

### **3. *Lifestyle Habits***

While the scope of our study did not include caffeine, alcohol, or drug use among healthcare professionals, it did explore the correlation between professionals' eating habits and their levels of burnout and self-compassion, which is an association that has not been examined in the existing literature. We found that those who have at least two or more unhealthy meals are more likely to be exhausted, feel less productive in terms of their work, and be less self-compassionate towards themselves. Although it is unclear whether healthcare workers are too busy and "exhausted" to plan a healthy meal, or whether poor nutrition contributes to their exhaustion, this remains an important factor in their self-care. Anecdotally, we suspect that due to their busy working schedules, healthcare providers rely on unhealthy snacks and meals, such as chocolates and "fast food" from nearby vendors, as they are more easily accessible. They are also cheaper than healthy meals, which is an important factor to consider given that most of our sample might not be able to afford having healthy food and snacks for three meals daily. As a result, we suggest that hospitals and medical centers incorporate stricter standards regarding the type of food they provide in their cafeterias and vending machines. For example, they could replace the chocolates, candy, or fizzy drinks in their vending machine with healthier snacks, such as fresh fruits and salads.

#### **D. Limitations**

There are a number of limitations to our study. The main limitation is the low response rate and small sample size. While we could not assess the actual reasons behind the low response rate since the survey was administered online anonymously, we suggest that this might be due to the nature of our sample, which consists of overworked healthcare professionals, who might not have the time to participate in research studies or who, as our findings suggest, are burned out, and hence, are unmotivated to respond. However, our sample size, was similar to that of other studies in Lebanon who sampled between 91 and 118 individuals from the same institution (Talih, Ajalatouni, & Farhood, 2018; Talih, Warakian, Ajaltouni, Shehab, & Tamim, 2016), indicating that this might be a common issue that is faced when studying this population. Moreover, the majority of those who responded were residents, were predominately female, and had high levels of education, making the sample less diverse and representative than we have hoped it to be. Due to these issues, we would like to consider this study as a pilot, which will guide us in developing more studies that examine burnout and self-compassion in our region.

Another limitation is that our study employed a cross-sectional design, and so, we cannot know whether it is the low self-compassion that results in higher levels of burnout or whether it is the high levels of burnout that results in low self-compassion. Therefore, our findings should be interpreted in terms of associations rather than causation. However, Neff (2009) argues that the self-compassion scale was developed to measure self-compassion as a learned and long-term disposition rather than a temporary state. This is supported by Neff and Germer's (2012) randomized trial findings, which indicated that participation in an 8-week Mindful Self-Compassion Program resulted in a significant

increase in self-compassion as compared with the waitlist control group (Neff & Germer, 2012). Increase in self-compassion measures were maintained at 6-months and 1-year follow-up, while measures of life satisfaction increased from post-test to 1-year follow-up, and thus, once self-compassion is learned it remains stable and that its benefits are long-lasting (Neff & Germer, 2012). These findings are consistent with those of a meta-analysis that examined the longitudinal effect of compassion-based interventions, such as Mindful-Self-Compassion (MSC) training and Compassion Cultivation Training (CCT), and found a causal relationship between increase in self-compassion and well-being (Zessin, Dickhauser, & Garbade, 2015). These findings might suggest that those with low level of self-compassion in our sample were more vulnerable to the detrimental consequences of burnout than others. However, future studies are needed to further explore the nature of self-compassion, and whether it is a long term or temporary state of mind that results from experiencing certain negative experiences.

## **E. Conclusion**

To our knowledge, this is the first study to examine the relationship between self-compassion and burnout among healthcare professionals in the Arab region. It was also one of the very few studies that used the MBI-HSS, which is the most psychometrically robust and widely used measure of burnout, to assess the prevalence of burnout in a sample of healthcare professionals in Lebanon. The results of our study indicate that healthcare professionals are indeed burned out, but that having self-compassion mitigates burnout. This raises several issues regarding the need to raise awareness and shed light on the phenomenon of burnout, which can have detrimental consequences, on the healthcare



provider, the patients, and the organization as a whole. Future studies ought to focus on possible interventions that might help to deal with burnout at the workplace by incorporating self-compassion-related interventions.

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## APPENDIX A: ONLINE INFORMED CONSENT

**American University of Beirut**

P.O. Box 11-0236

Riad El Solh, 1107 2020

Beirut, Lebanon

### CONSENT TO SERVE AS A PARTICIPANT IN A RESEARCH PROJECT

**Research Project:** The Cost of Helping: The Relationship Between Self-Compassion and Burnout Among Healthcare Professionals in Lebanon

**Principal Investigator:**

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**Student Investigator:**

Zeena Hashem, M.A Candidate

*Graduate student in Clinical Psychology, Department of Psychology*

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We are asking you to participate in a **voluntary research study**.

**Nature and Purpose of the Project:**

Healthcare professionals, such as nurses, physicians, and mental health professionals, are prone to experience burnout, due to the nature of their occupation. However, some people experience burnout more than others. The aim of this study is to examine levels of burnout among healthcare professionals, and understand why some people develop burnout out more than others, based on their individual characteristics such as age, and the extent to which they take care of him/herself.

**Explanation of Procedures:**

The recruitment strategy approved by IRB is to approach participants online. There are approximately 200 participants who will be recruited in this study, aged between 18 and 70. If you are younger than **18 years**, or older than **70 years**, you may **not** participate.

To participate, first, you must read this consent form and consider if you would like to participate in this study. If you provide informed consent to participate in this study, you will then be asked to fill a 15-minute survey that asks questions about your demographics, your job, and how often you behave in a certain manner.

Your participation is **completely voluntary**. You are not required to answer questions that you prefer not to answer. Also, you may withdraw your consent to participate, and exit the survey at any point without any explanation and without any penalty. Refusal or withdrawal from the study will involve no loss of benefits to which you are otherwise entitled nor will it affect your relationship with your employer.

Your name will **not be asked**. The results of your participation are completely **anonymous, and confidential**. Only the research investigators (Dr. Zeinoun and Ms. Hashem) have access to the anonymous data, which will be stored with the investigators in a password-protected computer. Any data reported in future publications will be in aggregate format and without mention of hospital names or individuals.

Your participation incurs **no costs and there are no monetary incentives**. There are **no risks** and **no direct benefits** associated with participation in this study. However, the potential benefit is that you will participate in a study that will enhance our understanding of burnout in the workplace.

The principal investigator and research investigator might disregard your answers if the results show that you have not abided by the instructions given to you or if you do not fit within the participant characteristics that are relevant to this study, without **any penalties**.

If you have any questions about your rights as a research participant, or to report a research related injury, you may call: **Institutional Review Board (IRB) at the American University of Beirut 01-350000 Ext. 5445**

If you have any other concerns or questions, you may contact the principal investigator Dr. Pia Zeinoun on pz05@aub.edu.lb

By clicking “Next” you agree to participate in this research project. To keep a copy of this informed consent, you can print it or copy-paste it into a Word document and save it.

## APPENDIX B: INSTRUMENTS

### SOCIO-DEMOGRAPHIC AND OCCUPATIONAL SURVEY

1. Where do you work?

American University of Beirut Medical Center

Saint Georges Hospital

2. What is your age?

*drop-down list ranging from 18 to 75*

3. What is your sex?

Male

Female

4. What is your relationship status?

Single (Never Been Married)

Married (Or in a Domestic Partnership)

Widowed

Divorced

Separated

5. If you have children, please specify the number of children

*drop-down list with options ranging from 0 to 10*

6. What is the highest degree of education have you ***completed***? (If you are currently enrolled in university, please indicate the highest degree that you have ***already received***.)

High school Degree or Equivalent

- Undergraduate Degree (BA, BS, or Equivalent)
- Master's Degree (MA, MS, or Equivalent)
- Doctorate (MD, PhD, EdD)
- Other Degree (Practical Nurse, Teaching Diploma)

7. What is your *current* occupation?

- Attending Medical Doctor
- Clinical Psychologist (MA/MS, PhD)
- Dietitian
- Nutritionist
- Occupational Therapist
- Physical Therapist
- Practical Nurse
- Psychomotor Therapist
- Registered Nurse
- Resident/Fellow Medical Doctor
- Speech Therapist
- Other. Kindly Specify: \_\_\_\_\_

8. Please type your official job title: \_\_\_\_\_

9. What is the type of your contract with the hospital?

- Part-Time (20 hours per week)
- Full-Time (40 hours per week)
-



10. On average, how many hours do you *actually* work per week?

Specify: \_\_\_\_\_

11. How many years have you been working in your **current position**?

*drop-down list with options ranging from 1 to 40 years*

12. How many years have you been working as a healthcare provider in the hospital

overall (even if it is in different positions)?

*drop-down list with options ranging from 1 to 40 years*

13. How many years of experience do you have *overall*?

*drop-down list with options ranging from 1 to 40 years*

14. Please specify the range of your monthly salary.

*drop-down list with options ranging from less than 500\$ to above 7000\$, in increments of 500\$.*

15. How would you describe your “**financial situation**”? Take into consideration all income and benefits including salary, any financial assistance you receive from others, money generating business, etc.)

1) I am financially comfortable, for now.

2) I am neither comfortable nor financially troubled.

3) I am uncomfortable financially, for now.

16. How many vacations days are you entitled as per your contract?

Specify: \_\_\_\_\_

17. How many vacations days do you *actually* take per year (regardless of how many you are allowed)?

Specify: \_\_\_\_\_

18. Are you allowed to take sick leaves?

Yes

No

19. What is the number of sick leaves that you have taken in the past year?

*drop-down list with options ranging from 0 to 100*

20. How often do you exercise?

1) Zero or 1 time per month

2) About once a week

3) Almost daily

21. How would you describe your eating habits?

1) All my meals are healthy **almost** every day.

2) **At least one or two meals** (including snacks) **are healthy** every day (e.g., home cooked lunch, salad, grilled chicken)

3) **At least one or two meals** (including snacks) **are NOT healthy** (e.g., “grab-and-go” sandwiches, man2oushe, fries, chocolate, fizzy drinks)

4) My meals and snacks are **mostly “junk food”** or processed food almost every day (e.g., high-sugar drinks, fried food, etc.)

# MASLACH BURNOUT INVENTORY – HEALTH SERVICES

## SURVEY (MBI-HSS)

Instructions: The following are 22 statements of job-related feelings. Please read each statement carefully and rate the extent to which you feel this way about your job. If you NEVER had this feeling, choose NEVER. If you had this feeling, then indicate how often you feel it by choosing an option from 1 to 6.

	<b>0 Never</b>	<b>1 A few times a year or less</b>	<b>2 Once a month or less</b>	<b>3 A few times a month</b>	<b>4 Once a week</b>	<b>5 A Few times a week</b>	<b>6 Always</b>
1. I feel emotionally drained from my work.							
2. I feel used up at the end of the workday.							
3. I feel fatigued when I get up in the morning and have to face another day on the job.							
4. I can easily understand how my patients/clients feel about things.							
5. I feel I treat some patients/clients as if they were impersonal objects.							
6. Working with people all day is							

really a strain for me.							
7. I deal very effectively with the problems of my patients/clients.							
8. I feel burned out from my work.							
9. I feel I'm positively influencing other people's lives through my work.							
10. I've become more callous (i.e. uncaring/insensitive) toward people since I took this job.							
11. I worry that this job is hardening me emotionally.							
12. I feel very energetic.							
13. I feel frustrated by my job.							
14. I feel I'm working too hard on my job.							
15. I don't really care what happens to some patients/clients.							
16. Working with people directly, puts too much stress on me.							
17. I can easily create a relaxed atmosphere with my patients/clients.							
18. I feel great after working closely with my patients/clients.							

19. I have accomplished many worthwhile things in this job.							
20. I feel like I'm at the end of my rope in this job.							
21. In my work, I deal with emotional problems very calmly.							
22. I feel patients/clients blame me for some of their problems.							

## SELF-COMPASSION SCALE – ORIGINAL FORM (SCS)

Instructions: Please read each statement carefully and indicate how often you behave in the stated manner.

	<b>1 Almost never</b>	<b>2 Occasion ally</b>	<b>3 About Half of the Time</b>	<b>4 Fairly Often</b>	<b>5 Almost always</b>
1. I'm disapproving and judgmental about my own flaws and inadequacies.					
2. When I'm feeling down, I tend to obsess and fixate on everything that's wrong.					
3. When things are going badly for me, I just see the difficulties as part of life, that everyone goes through.					
4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.					
5. I try to be loving towards myself when I'm feeling emotional pain.					
6. When I fail at something important to me, I become consumed by feelings of inadequacy.					
7. When I'm down, I remind myself that there are lots of other people in the world feeling like I am.					
8. When times are really difficult, I tend to be firm (tough) on myself.					

9. When something upsets me, I try to keep my emotions in balance.					
10. When I feel inadequate (not enough) in some way, I try to remind myself that feelings of inadequacy are shared by most people.					
11. I'm intolerant and impatient towards aspects of my personality I don't like.					
12. When I'm going through a very hard time, I give myself the caring and tenderness I need.					
13. When I'm feeling down, I tend to feel that other people are probably happier than I am.					
14. When something painful happens I try to take a balanced view of the situation.					
15. I try to see my failings (short-comings) as part of being human					
16. When I see aspects of myself that I don't like, I put myself down.					
17. When I fail at something important to me, I try to keep things in perspective.					
18. When I'm really struggling, I tend to feel like other people must be having an easier time.					
19. I'm kind to myself when I'm experiencing suffering.					
20. When something upsets me I get carried away with my feelings.					

21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.					
22. When I'm feeling down I try to approach my feelings with curiosity and openness.					
23. I'm tolerant of my own flaws and inadequacies.					
24. When something painful happens, I tend to blow the incident out of proportion.					
25. When I fail at something that's important to me, I tend to feel alone in my failure.					
26. I try to be understanding and patient towards aspects of my personality I don't like.					



## ADAPTED STRESSFUL LIFE EVENTS

Instructions: Click on the following items to indicate the events that you have experienced in the past 3 months.

Item #		Yes	No	Does not Apply to Me
1	Being on academic or job probation (formally or informally)			
2	Buying and/or fixing a house			
3	Changing jobs or universities/schools			
4	Death of a spouse or very close family member			
5	Getting married			
6	Getting pregnant (or partner getting pregnant)			
7	Having back-to-back shifts or difficult working hours			
8	Legal/ethical problems (e.g., jail, lawsuit, academic dishonesty)			
9	Living alone			
10	Major change in amount of recreation/leisure (much less or much more time for recreation)			
11	Major change in amount of socialization (much less or much more time to socialize)			
12	Major change in amount of study or work (much less or much more time for work/study)			
13	Major change in financial state (much worse or better than usual)			
14	Major changes in a relationship (e.g., divorce, separation, breakup)			
15	Major changes in children's life.			
16	Major changes in parent's life (e.g., parent going on retirement)			
17	Major changes in relationship with a loved other (e.g., living away from best friend)			
18	Major holidays			
19	Major illness or personal injury to a child, parent or sibling			
20	Major illness or personal injury to self			
21	Moving to a new country, culture or language			

<b>22</b>	Sexual difficulties			
<b>23</b>	Taking care of another person (e.g., sick parent, child)			
<b>24</b>	Taking or paying back a loan (e.g., car loan, mortgage)			
<b>25</b>	Trouble with in-laws			
<b>26</b>	Trouble with a boss, professor or person at work			